

# Animacy effects in inflectional morphology: a typological survey

PhD dissertation

2018

eman ta zabal zazu



Universidad  
del País Vasco

Euskal Herriko  
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Candidate: Ekaitz Santazilia Salvador  
Advisor: Dr. Iván Igartua Ugarte







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Ramon Llull (1512).  
*Raymundi Lully doctoris illuminati de nova logica,  
 de correlatiuis nec non et de ascensu et descensu intellectus.*  
 Valencia: Jorge Costilla.





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## ABSTRACT

This dissertation aims at providing a monograph devoted exclusively to the effects of animacy in inflectional morphology. In order to carry out this work, on the one hand, some methodological decisions about sampling and data collection have been made and, on the other, based on an extensive literature review, a theoretical definition of animacy, its behavior and scope has been sought.

Thereafter, a descriptive and comparative crosslinguistic typology of animacy effects in inflectional morphology has been carried out, based on data from more than 350 languages all over the world. This work focuses on three main aspects: The morphological (and phonological) techniques that are crosslinguistically employed to encode animacy, the grammatical categories that can be affected by animacy, and the grammatical features whose realization is sensitive to animacy-based distinctions.





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## ABBREVIATIONS

1	1st person	CONS	consecutive
2	2nd person	COORD	coordinator
3	3rd person	COP	copulative verb
AB	absent	DAT	dative
ABL	ablative	DECL	declarative
ABS	absolutive	DEF	definite
ACC	accusative	DEFL	default (gender)
ADE	adessive	DEICT	deictic
ADJ	adjective	DEM	demonstrative
AGT	agent marker	DEP	dependency marker
ALIEN	alienable possession	DET	determiner
ALL	allative	DIM	diminutive
ANAPH	anaphoric	DIR	direct
ANIM	animate	DIST	distal
ANIMC	animacy as a condition	DISTR	distributive
ANIMF	animacy as a semantic feature	DP	determiner phrase
APPL	applicative	DU	dual
ART	article	DYNM	dynamic
ASP	aspect	ERG	ergative
ASSOC	associative	EST	estative
AV	agentive voice	EV	evidential
CAT	catalyzer	EXCL	exclusive
CAUS	causative	EXIST	existential
CLASS	classifier	FEM	feminine
COLL	collective	FLW	following marker
COM	comitative	FOC	focus
COMPL	completive	FUT	future
CONC	concessive	GEN	genitive
CONN	connector	GRAL	general

H	higher in animacy	PASS	passive
HABIT	habitual	PAT	patient
HUM	human	PERS	person marker
IA	intransitive animate	PFV	perfective
IG	interrogative	PL	plural
II	intransitive inanimate	POSP	postposition
ILL	illative	POSS	possessive
IMP	imperative	PREF	prefix
IMPF	imperfective	PREP	preposition
INAN	inanimate	PRES	present
INCH	inchoative	PRO	pronoun
INCL	inclusive	PROG	progressive
IND	indicative	PROX	proximate, proximal
INDF	indefinite	PST	past
INES	inessive	PUNCT	punctual
INST	instrumental	PVB	preverb
INTNS	intensifier	RAT	rational
INV	inverse	REAL	realis
L	lower in animacy	REFL	reflexive
LOC	locative, local	REL	relative, relativizer
MASC	masculine	REP	reported speech
MF	marked form	REV	reportative evidential
MIN	minimal number (singular)	SAP	speech act participant
N3RD	non-3rd person	SEQ	sequential
NEG	negation, negativizer	SG	singular
NEUT	neuter	SOC	sociative
NOM	nominative	SPEC	specific
NOMIN	nominalizer	SUBJ	subject
NHUM	nonhuman	TA	transitive animate
NP	noun phrase	TEL	telic
NPROX	non proximate	TI	transitive inanimate
NRPST	near past	TOP	topic
NSG	nonsingular	TR	transitive
NSPEC	nonspecific	TRAD	traditional
OBJ	object, objective case	UAUG	unit augmented (dual number)
OBL	oblique	VENT	venitive
OBV	obviative	VIS	visual
OPT	optative		

## I. INTRODUCTION

### 1. GOALS

Animacy is, according to Dahl & Fraurud (1996: 47), “so pervasive in the grammars of human languages that it tends to be taken for granted and become invisible.” However, the extent to which and nature of how animacy is distributed crosslinguistically all over the world has not been systematically recorded by linguists, perhaps due to this abovementioned ‘invisibility’.

Whatever the reason may have been, the fact is that some features or linguistic phenomena have been already treated monographically, namely in gender (Corbett 1991), ergativity (Dixon 1994), case (Blake 2004 [1994]), number (Corbett 2000), classifiers (Aikhenvald 2000), person (Siewierska 2004), agreement (Corbett 2006), and ownership (Aikhenvald 2013) among others, but a descriptive monograph of animacy, considered by Corbett (2012: xii) a ‘semantic feature’, is still lacking. It is true, however, that some works have been fully or partially dedicated to this topic from a crosslinguistic and typological viewpoint, namely a chapter written by Comrie (1989 [1981]), a paper by Ortmann (1998), the chapters by Croft (1990), Yamamoto (1999), and Blake (2004 [1994]), and an issue of *Lingua* in 2008 (de Swart, Lamers, & Lestrade 2008), as I will show in more detail later.<sup>1</sup>

Thus, the main goal of this dissertation is to provide a descriptive and comparative crosslinguistic typology of animacy effects in inflectional morphology, mainly from a synchronic point of view. This description follows two different aims. On the one hand, the objective is to capture the variation existing all over the world, depending on some

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<sup>1</sup> When this work was almost finished, two issues addressed to animacy were published: one in *Theoretical Linguistics* 44(1-2), and a further one in the *International Journal of Language and Culture* 5(2). I have been able to employ and cite the papers published therein only perfunctorily.

preestablished parameters. But there is also a second aim, which is equally important: the contribution of animacy to the general grammar, to be captured by observing the features shared by all the languages affected by animacy. The opposite approach, that which would predict from these generalizations how animacy will develop in a specific language (Forchheimer 1953: 1), is far from my objectives, but some general remarks can still be made. Departing from a contrastive framework, I have hypothesized that genetically, areally, or socioculturally unrelated languages (cf. Moravcsik 2013: 3 ff.) may show similar patterns concerning animacy effects in different grammatical categories or features. Moreover, interlinguistic variation may also be limited. To accomplish this main goal, other secondary tasks have been undertaken. I have carried out a historiographical literature review so that the object under study can be defined, and some characteristics of the nature of linguistic animacy have also been described. I have also collected the data from a vast sample of languages, and then these data have been typologically compared and classified depending on different criteria, so that some conclusions can be deduced. In sum, a work of typological classification and generalization has been conducted, avoiding on most occasions giving any functional, areal, and genetic explanation to these generalizations.

## 2. THE ORGANIZATION OF THIS DISSERTATION

As I have already pointed out, the main objective of this dissertation is to provide a crosslinguistic overview of the effects of animacy in inflectional morphology from a typological framework. In order to achieve this goal, a crosslinguistic database has been created. Therefore, some methodological aspects that are crucial for the creation of a reliable corpus have been addressed in this introductory chapter (§ I).

Chapter § II is a theoretical chapter that introduces the concept of animacy. It contains an important historiographical part, in which, on the one hand, I show the historical relevance of the concept for humanity in general. On the other hand, I have also carried out a literature review of the concept of animacy in linguistics, so that a general idea of the scope, nature, behavior, and effects of it can be traced. In this chapter I have also added some theoretical remarks that have not been addressed by the studied authors, but which are important to getting acquainted with what animacy can do in languages, and how it functions. Thereafter, all these theoretical considerations have been applied to narrow down the definition of ‘animacy’ that has been employed in this dissertation.

Chapters §§ III, IV, and V form the core of this dissertation. Chapter § III deals with the techniques by means of which animacy manifests itself crosslinguistically. Most of the

techniques are morphological, but I have also included some morphophonemic ones due to their typological interest, and also mixed morphological and morphophonemic techniques. Chapter § IV has been devoted to the grammatical categories that can be affected by animacy. Finally, chapter § V has been dedicated to features. This is the broadest chapter, as four significant features have been studied: gender, person, number, and case. Each of these three chapters includes a summary and some conclusions at the end.

The main conclusions of the dissertation have been provided in chapter § VI, and references and appendixes, in the subsequent sections. Appendix IV contains a summary of this dissertation in Basque, included in order to fulfill the requirement of the University of the Basque Country in this regard.

### 3. METHODOLOGICAL ISSUES

#### 3.1. Theory on language sampling

##### 3.1.1. *Linguistic diversity*

Since Bell's (1978) seminal work, the methodology for language sampling is a research topic in itself. A typological and empirical work must specify which methodology has been followed to choose the language-corpus and to create the database, since this helps to narrow the scope of the research and allows for the method and its consequent conclusions to be tested and critiqued, creating new research topics, or even improving the methodology of sampling (Rijkhoff & Bakker 1998: 292-293).

A work that follows the aim of describing how the human mind categorizes a linguistic phenomenon should comprise, in theory and ideally, all the language diversity in the world. Hence, in addition to the languages existing nowadays, all those that have existed in the past should be included, or even former diachronic stages of existing or dead languages, whether attested or not (Comrie 1989 [1981]: 27-28; Whaley 1997).<sup>2</sup> This is obviously impossible, but it must be taken as a reference.

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<sup>2</sup> Bakker (2011: 101) makes an estimation that is, in my opinion, somewhat trivial. He calculates that, if a language must change during 1,000 years to be considered a new language and that —considering factors of extinction, divergence, and convergence— there have been always around 6,000 languages at the same time on earth, since the expansion of Homo Sapiens 40,000 years ago up to now, around 240,000 languages have existed. From these, nowadays we can only access the 6,000 living languages, plus around 1,500 additional ones that, although they are no longer alive, have left traces of their previous existence.

Therefore, it is worth asking, as Bakker (2011: 101-102) following Comrie (1989 [1981]: 28) did, whether such a reduced corpus would be a good representation of all human linguistic production, and hence, of the way human beings categorize a linguistic manifestation, not only nowadays, but also in the past, and probably in the future, as long as there is no major structural or evolutionary change in human nature and, consequently, in language. Considering that science moves forward always by simplification,<sup>3</sup> we should remember that the goal of a typological description is not the definition of *all the attestations* of a linguistic phenomenon, but rather the attempt to find and identify the *biggest possible amount of patterns*, so that some generalizations can be formulated, however partial or provisional they may be.

### 3.1.2. *Biases in sampling*

Besides the reduced amount of languages a linguist —or even a linguist team— may process, the selection of them adds further interrelated impediments, which may bias the conclusions drawn from the database and may limit the possibility of attesting the biggest amount possible of interlinguistic variation patterns. Most of the biases were specifically treated by Bell (1978), and have been often repeated and extended by Comrie (1989 [1981]: 28-31), Rijkhoff *et al.* (1993), Rijkhoff & Bakker (1998), Croft (1990), and Bakker (2011: 106-109). Let us explain them one by one:

- *Bibliographical bias*: It is related to the amount and quality of bibliographical sources available. Barely a third of all the languages in the world has reliable studies and grammars available for researchers, and some languages have not even been written. The quality of the sources is also crucial, since some of them may be obsolete, or the information may be useless for the purposes of the research.<sup>4</sup>

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<sup>3</sup> “En la actividad científica, como en la política, la conducta que se atiene al ‘dividir para vencer’ resulta siempre a la larga la más razonable. Si a la división de las dificultades se puede añadir una simplificación —que puede parecer arbitraria y brutal— de los objetos, mejor que mejor, porque sólo así puede progresar en muchos dominios el conocimiento humano” (Michelena 1990 [1962]: 55).

<sup>4</sup> A way of avoiding this bias is obtaining data directly from surveys based on speakers’ answers, but even this method has its own problems (Whaley 1997: 42-43). Questions must be well posed, and even this does not avoid the observer’s paradox. Besides, the amount of data and geographical distribution of the languages studied make this method often unattainable.

- *Genetic bias*: It has to do with the overrepresentation of the best-known languages and language families, which reduces the likelihood of attesting other possibilities of variation.
- *Areal bias*: The selection of a corpus limited to a Sprachbund or group of languages sharing common features through language contact may also result in a reductionist view of linguistic diversity.
- *Cultural bias*: It focuses on the influence a culture may exert on a language or languages. The influence of culture on the structure of languages is controversial and difficult to define; consequently, cultural biases are hard to avoid.

### 3.1.3. *Kinds of typological works*

Determining how many languages and which ones may be included in the corpus is not an easy task. It depends on the object under study, the ability and time of the researcher, and on the availability of data sources.

Bakker (2011: 121) suggests a sampling method completely independent from the object under study. This is important for studies that look for statistical data and negative evidence, but it is counterproductive for the aim of this dissertation. The differences among types of samples are conditioned by the goal. Apart from random samples in which the languages included do not show any stratification and classification (Rijkhoff *et al.* 1993; Rijkhoff & Bakker 1998), at least since Bell's (1978) work, two kinds of typological works must be differentiated: those of *probability* and those of *variety*. The probabilistic works, which are more statistical, want to show to what extent a linguistic phenomenon or a combination of them may appear in languages. For these, a big corpus is not required, but genetic and areal biases must be meticulously avoided. A variety analysis, like mine, intends to classify the diversity. They are often applied to little studied phenomena, and the objective is to attest as much variation as possible, within a parameter. A bigger corpus with more than 100 languages is required, and biases must also be avoided, so that no language family or area remains unresearched, and also because having different linguistic areas and including languages genetically unrelated that have been far from each other for a long time ago increases the probability of finding variation (Bell 1978: 146-147). Moreover, I agree with Whaley (1997: 178-179) in that in a variety typological work, not only variation, but universals must also be recorded.

Consequently, it is true that independent sampling methods avoid the biases mentioned in § 3.1.2, but I think that, keeping in mind these biases, for a variety typological work,

conditioning the sampling to the specific purpose of the research would provide better results. I would even state that none typological work has applied a sampling method blindly, without any intervention of the researcher, especially in variety studies like mine that employ legitimately convenience samples (Whaley 1997: 38).

Whatever type of work may be done, the sampling methodology must explain how the languages have been selected, which type of sample has been sought, which linguistic classification and stratification has been made, which the applicability to the object under study is, the size of the sample, and the treatment accorded to different types of languages such as extinct languages, creoles, mixed languages, unclassified languages, secret languages, sign languages, artificial languages, isolates, and so on (Rijkhoff & Bakker 1998: 292-294).

### **3.2. Building the corpus for the study of animacy**

In the following sentences, I will try to specify how I have fulfilled the abovementioned requirements.

#### *3.2.1. A variety study on animacy*

First of all, in my opinion, there is a chronological relation between a variety work and a probabilistic one. Undoubtedly, to make a probabilistic study in which the possibilities of variation are already catalogued and controlled in order to obtain statistical data, this variation must have been previously studied by means of a variety work. The study of animacy currently falls somewhere between these two states. There are some works that show the impact of animacy in some languages or language families, often just in an area of grammar, and which allow a probabilistic comparison, but there is still a significant shortage from the point of view of the variety studies.<sup>5</sup> Thus, a systematic cataloguing of those data that have been analyzed from this viewpoint is still lacking.

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<sup>5</sup> The situation has improved since Whaley (1997: 181) stated that “[t]he current understanding of animacy [...] is still in its infancy. In particular, there is a lack of work based on representative samples of the world’s languages so that statistical generalizations about the frequency of various types of animacy-based marking are unavailable,” but there is still a lot of work to do.



### 3.2.2. *Avoiding biases*

#### 3.2.2.1. Data sources

The aim of this typological work is to map “reality” as far as possible, but as Maho (1999: 150) states for his study of Bantu languages, “[T]he relation to actual linguistic facts is a question related to the reliability of the sources and my interpretation of them.” In this dissertation, data come mainly from bibliographical sources, and secondarily from personal communications. The first group includes language-specific or language-family grammars, descriptive papers, and monographs on linguistic phenomena and features.

In most cases the data from a language have been obtained from one or two sources. Sometimes the reader will perceive that sources are secondary, and that only in few cases the main primary source has been addressed. I have revised the main primary source just in cases in which data in these secondary sources seemed incomplete or incorrect. Obviously, resorting to the primary sources seems to be the best option, but that would often imply traveling from one source to another in order to reach the primary source, searching in the older bibliography. Conversely, the secondary sources I have employed have been written by prestigious researchers in distinguished publishing houses, and following current standards; actually, I have prioritized recent sources over older ones. Furthermore, going to the primary source in each case would have implied a major time investment that would have had a negative influence on the amount of data handled.

The advantage of using written sources is that animacy and its effects tends to be already identified by the author, which makes it considerably easier to collect the data, and therefore, have information about a vast amount of languages. Moreover, especially in recent works, the terminology employed and the framework in which data are given and analyzed tend to be homogeneous.

However, there are at the same time some disadvantages that cannot be ruled out. They are related, obviously, to the quality of the source. First of all, the amount or quality of the studies and the information available is quite variable from one language or language family to other: in some cases the bibliography available is difficult to find, or it is out-of-date. Furthermore, as describing animacy effects is not always the goal of authors, in some cases data are incomplete or too scarce to draw decisive conclusions and, in cases in which data come from secondary or tertiary sources, they may also be less and less accurate or too simple. Let us have a look, for instance, to the split ergativity in Wagaya between 1st/2nd person pronouns (I), third person pronouns (II), and demonstratives (III), as provided by

Baerman, Brown, & Corbett (2005: 43-44), in Table 1. Considering that 1st and 2nd person pronouns are always animate and that 3rd person pronouns and demonstratives can be either animate or inanimate, having no data about 3rd person inanimate pronouns prevents us from knowing whether it is animacy that triggers the split, or whether it is a matter of person hierarchy (1/2 vs. 3) together with that of the type of nominal (pronoun vs. demonstrative), irrespective of the animacy of the 3rd person pronoun.

**Table 1.** Split ergativity in Wagaya.

	I 'you.PL'	II 'he'	III 'that.MASC'
Erg (-l)	<i>ir</i>	<i>yuve-l</i>	<i>bule-l</i>
Nom-Abs		<i>yuvu</i>	<i>bulu</i>
Acc (-y)	<i>irin-y</i>	<i>yuvin-y</i>	

In other cases animacy effects are blurred inside other linguistic phenomena, or the data are not explained by means of animacy. Moreover, sources can disagree in the way of interpreting some data, or may use different frameworks or terminology. Apart from 'animacy', other labels such as 'humanness', 'sentiency', 'volitionality', 'rationality', and so on may be found. To be sure, not doing any fieldwork implies trusting in what authors state and in the way they do it.

Finally, I would like to add that in the examples given I have respected the orthography provided in the source and, in general, the glossing parameters, except in cases in which other glosses could be more accurate for my purpose, or in cases in which a system other than that of the Leipzig glossing rules has been employed. In these few cases, I have adapted the example to these rules. Moreover, I have standardized and equalized the abbreviations employed in these glosses as well as the use of capital letters and punctuation in translations, instead of adapting some of them to US English.

### 3.2.2.2. Size and features of the corpus

As I have already pointed out (§ 3.1.3), for a variety work, a sample of more than 100 languages is necessary. It is, obviously, a sample of convenience, based on the judgments of the researcher, who knows in advance how important a language is, and ensures its presence in the corpus (Bell 1978: 128): consequently, it is a corpus of positive data, in which languages that do not attest any animacy effect have not been included.

The corpus includes data from 379 linguistic systems<sup>6</sup> (cf. Appendix II). Every single instantiation of animacy has been recorded initially not paying attention to typological, areal, or genetic criteria, but making sure that at the end most of the types, areas, and genetic families are represented (cf. Appendix III). Some of them may be quantitatively overrepresented, but this is not a problem in a variety research, whose aim is not obtaining statistical data, but just variation. This can be the case of Otomanguean languages for instance, which, by the way, although they are especially interesting, have not been mentioned in the few crosslinguistic works about animacy.

The genetic classification of languages is especially difficult. Many genetic classifications are far from being uncontroversial and, because the genetic criterion is not a crucial criterion used in this work to look for structural diversity, I have chosen an accessible classification, regardless of any problems it may have. After checking the classifications made by Ruhlen (1987) and Voegelin & Voegelin (1977), I have followed that made by Ethnologue in its latest version (Simons & Fennig 2018 [1951]), since it is broader, and is constantly renewed and adapted. No system for areal classification has been employed, but languages for many places all over the world have been included. I have followed the data from Ethnologue to define the area in which a language is spoken.

Among the languages included, we can also find creole languages and pidgins, mixed languages, dead languages such as Latin and Ancient Greek, some dialects, protolanguages, languages with millions of speakers together with those whose speakers can be counted on the fingers of one hand, languages covering big areas and also small ones, languages belonging to well known big families, but also isolated ones, and languages whose classification is dubious. There is no instance of non-oral languages such as sign languages, and all the languages included are natural; not artificial.

### 3.3. Naming languages

Giving a name to a language is not always an easy task. Some languages have different denominations, which are, in some cases, quite different from each other: that is the case,

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<sup>6</sup> I have employed the more neutral term ‘linguistic system’ instead of ‘language’, since different stages of the same language, such as Medieval Spanish vs. (current) Spanish have been recorded separately, as independent systems, even if they are actually the same language. This is so also for some varieties of the same language, like Greek, Ancient Greek, and Cappadocian Greek. Moreover, the borders between macrolanguages, languages, dialects, and varieties are not always so well defined.

for instance, for *castellano* and *español* (Spanish), and Dido or Tsez. Sometimes the speakers employ more than one denomination, or grammarians have traditionally used a denomination that has been proved to be different from that used for speakers, or even pejorative as in the case of Berber (from Latin *barbarus*) vs. Tamazight, or Eskimo vs. Inuit. Equally, it is sometimes controversial whether a denomination covers a language, a dialect, or a family.

So that these problems are avoided, a neutral codification of each language is useful. In this dissertation I have encoded each language by using the three-letter code ISO 639-3, and used the nomenclature attached to each code provided by SIL and Ethnologue (Simons & Fennig 2018 [1951]). In this way we can be assured that any biases derived from different nomenclatures are neutralized. However, there are additional problems (cf. Morey, Post, & Friedman 2013). These codes cover only natural languages, so protolanguages, which have been occasionally mentioned here, do not have a proper code. Furthermore, the nomenclature used by Ethnologue and SIL may not be the most widely used among linguists or can be deprecatory for speakers. At the same time, there is not always agreement on the border between a dialect, a language, and a macrolanguage: some languages are considered dialects for Ethnologue and languages by my data sources, and vice versa. Grebo, for instance, is a macrolanguage for Ethnologue and a language for Corbett (1991). Usually I have followed the consideration given by the data source. Anyway, this is not crucial for the purposes of this dissertation.

## II. ANIMACY: THE OBJECT UNDER STUDY

In this chapter we will immerse ourselves in the concept of animacy, and provide an overview on its meaning and scope. First of all, I will show that animacy, the distinction between “living” entities and those which are not, has been important also outside linguistics, and has exerted an influence on philosophy, religion, and science (§ 1). Then I will focus on animacy in linguistics, by means of a literature review of some of the most significant works that address the concept of animacy also from a theoretical viewpoint, or that, in my opinion, provide interesting theoretical aspects (§ 2): these will lead me to draw some conclusions about the behavior of animacy in linguistics (§ 2.33). Section § 3 has been devoted to adding further remarks that have not been provided by the authors in the literature review, but which are important for a theory on the behavior of animacy in languages. Finally, in § 4, based on the information gathered in the previous sections, I define narrowly the concept of Animacy in Inflectional Morphology I have chosen for this dissertation.

### 1. THE HISTORICAL INTEREST OF HUMANITY IN ANIMACY

The idea that states that all the entities that form the universe are arranged according to their inherent properties has been recurrent since antiquity, and has had a profound influence on the formation of Western thought, leaving a mark even far away from the domain of linguistics. Among the parameters of classification, being human or being alive has been central, together with some properties inherent to humans and living entities.

But the classification goes further than a bipartite division between animates and inanimates, by establishing a hierarchy in which an entity can be higher or lower, depending on a gradual and not purely biological humanness or animacy, which has been deeply influenced by the conceptualization of the universe that human beings have had throughout history. As a consequence, one entity has been considered “more animate” than another due to its inherent properties (but not necessarily because they are biologically alive), or by

cultural or even circumstantial factors (Comrie 1989 [1981]: 284; Yamamoto 1999: 9), which derived in a complex hierarchy in which some entities are higher than others in terms of ‘animacy’. This hierarchy, known in philosophy as the *Great chain of being* or *Scala naturae*, has, thus, not been based on biological criteria, but rather on theocentric, philosophical, or even sociopolitical factors (cf. Lovejoy 2001 [1936]; Formigari 1974; Lakoff & Turner 1989).

This hierarchy departs from the Platonic dualist philosophy distinguishing between the world of ideas on the one hand, and matter on the other, adding Aristotle’s notion of continuity. While the latter did not establish the hierarchy between all the entities of the world, he did lay the foundations so that later medieval thinkers could do so, when he observed that certain properties of some entities tended to be confused progressively with those of others (Lovejoy 2001 [1936]: 55-57). Thus, the initial hierarchy departs from purely spiritual beings to purely material ones, establishing intermediate stages as far as an entity has more of a spiritual than material nature, or vice versa.

It was in the Middle Ages and, especially, with the arrival of Neo-Platonism in the Renaissance, that the “chain of being” was defined as such, and became a more complex idea as scientific and taxonomic knowledge increased, but obviously, while still also depending on the Western way of thinking and on social, political, and religious criteria at that time.

As can be seen in Figure 1, the hierarchy, in its simplest description, departs from a theocentric schema in which God and other heavenly entities occupy the higher place. From the first representations of the hierarchy, humans have had a place other than animals, and these, at the same time, other than inanimates.

**Figure 1.** The Chain of Being.

God > angels > humans > animals > vegetables > minerals

This hierarchical organization implies a valuation and praise of the entities located at high levels, and a disdain toward those in the lower positions. As I have already stated, religious and political developments, beliefs, as well as the advances in biological taxonomy have complicated and adapted the hierarchy in such a way that, for instance, domestic animals could be above wild animals, the king above other human beings or, not such a long time ago, the Aryan race over others (Lakoff & Turner 1989: § 4; Hawkins 2001: 42 ff.).

However, this hierarchy, with all its implications and hints, seems to be valid for cultures other than that of the West, as we will see with linguistic evidence through this dissertation.

## 2. ANIMACY IN LINGUISTICS: A LITERATURE REVIEW

In this section I will summarize and comment on some papers that contain, in my opinion, significant theoretical remarks on the notion of animacy in linguistics, its nature, definition, and scope (§§ 2.1-2.31). I have arranged them more or less in a chronological order and by authors, with some exceptions. Then, in § 2.33 I have made some generalizations about the nature of animacy in linguistics, based on these works. These conclusions will be helpful to determine the definition of animacy that has been employed in this dissertation, which, as will be shown in § 4, is crucial for the data collection to be precise.

### 2.1. The pioneers

The importance of animacy in the description of linguistic phenomena, especially concerning gender, was already apparent in Classical Greece and in the Renaissance, but it was definitely developed in the 19th century (Corbett 1991: 308-309).<sup>7</sup> As shown by Hjelmslev (1972 [1956]: 290-291), the development of typology and the knowledge and description of “new” languages at the beginning of that century made it possible to take a broader scope, and to understand animacy as an element present in the gender system of many languages. The animate/inanimate distinction, or that between personal and impersonal entities, was already mentioned by Humboldt (Wierzbicka 1981: 64-65). In American languages it was seen by Bindseil already in 1810, in the same year by Sacy for Arabic, and in Slavic languages by Dobrovsky and Karadzic in 1809 and 1824 respectively (Hjelmslev 1972 [1956]: 292-293). Equally, we cannot forget the contributions made by Carl Meinhof in African languages, and those by Adolf Dirr in the Caucasian ones (Corbett 1991: 309-310). According to Hjelmslev (1972 [1956]: 292-293), it was Bindseil who in 1838 made a first typological generalization in which two gender systems were distinguished: that which separated the animate from inanimate —or the personal from the nonpersonal— and that which distinguished the masculine and the feminine. In the study about Dravidian languages by Robert Caldwell in 1856, the animacy distinction is recurrent in the description of several phenomena. Moreover, this work already states, on the one hand, that rational nouns are agents more than patients, which is a widely accepted idea even today, and on the other, that when the opposite happens, rational nouns must be marked somehow (Caldwell 1856: 217).

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<sup>7</sup> Apart from those cited in the text, for this section, these works have been a good departure point: Plank (1979: note 14; 1987: 181), Corbett (2000: 55-56), and, above all, Filimonova (2005: § 2).

At the end of the 19th century, in 1886 and 1887, de la Grasserie (1886; 1887) suggested, from a diachronic point of view about the spreading of number marking in some languages, a stage in which only pronouns take number marking, a subsequent stage in which animate nouns are also number-marked, and a final one in which every noun is marked, by providing several instances (de la Grasserie 1886: 232-239).

At the beginning of the 20th century, in 1909, Thomson observed in data from Russian that the probability of humans being agents of verbs against inanimates was very high, but suggested also the existence of a gradation that puts animals and children between the two poles (Thomson 1909: 304-306). Later, he confirmed his statement with data from other languages (Thomson 1912).

Although it has been scarcely cited by modern authors, in 1924 Jespersen was already aware of the fact that the distinction between animates and inanimates in grammatical gender was a crosslinguistic phenomenon, and that such a distinction was not always so well defined; that is why he devoted an interesting subchapter of his book to animacy from a typological viewpoint (Jespersen 1924: 234-240). He noted that the animacy distinction could vary depending on the personal interest of the speaker toward the entity that he or she is talking about, its size, or the possible personification of an abstract entity such as a state, death, the sky, the sun, or the moon, and also found differences between big and small animals and countable and uncountable elements. Moreover, there is a passage from which it can be inferred that Jespersen claimed a kind of universality for animacy in linguistics:

In various languages, therefore, a distinction between these two classes [animates and inanimates] is seen reflected in their manner of indicating the object, but as the means by which this is achieved are entirely different, we seem here to have a trait that has its root in the psychological sameness of men all over the world (Jespersen 1924: 238).

Schmidt published in 1926 a vast work on typological classification of the languages in the world (Schmidt 1926). From two maps in the atlas that accompanies the book, those about number (XI) and gender (XII), it can be inferred that splits and neutralizations do not work in the same way for pronouns and common nouns, and that there is a hierarchy that puts the former above the latter. In the map about gender, apart from the mentioned hierarchy, some linguistic areas in which there are animate/inanimate or person/thing splits were shown.



The decoding of Hittite was decisive for Meillet in 1931, since he postulated an animacy-based gender system for Indo-European (common/neuter gender), from which a further sex-based masculine/feminine distinction was created inside the common gender (Corbett 1991: 309).

We cannot forget Forchheimer's (1953) pioneering typological work about person. In the introductory chapter in which he described the object under study, Forchheimer opposed the 1st and 2nd persons against the 3rd one, since the latter is not present in the speech act (Forchheimer 1953: 5-6), and provided examples to show how this distinction has formal crosslinguistic implications. Moreover, this author outlined an animacy (and person) hierarchy when, after observing the number-system in some languages, he stated, in the same vein as de la Grasserie, that:

There is no doubt that plural starts from the first person, spreads to the second, and then to the third person and nouns designating person, then animate nouns, and last to the names of objects (Forchheimer 1953: 12).

Among the nouns employed with persons, emphasized kin terms, and linked this hierarchy to that of definiteness and determination. Moreover, he highlighted the agentiveness of the 1st person.

Nevertheless, the concept of linguistic animacy as a decisive factor for the explanation of different linguistic phenomena was definitely established thanks to the typological works dedicated to the description of Amerindian and Australian languages during the 1960s and 1970s, which assumed from the beginning the notion of hierarchy and gradation between animates and inanimates, beyond a purely dichotomous split. Besides, they defined several subhierarchies that overlap each other. Below, we will cite and comment on some of these works.

These contributions talk about animacy in an inductive way, departing from a particular linguistic phenomenon that can be explained by it,<sup>8</sup> and sometimes, when there is a hierar-

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<sup>8</sup> Hockett (1966: 59-60), for instance, provides this animacy-based scheme to explain the pronominal system of the Algonquian language Potawatomi:

Animate  
     local  
         speaker  
         hearer

chy, without determining which slots it should exactly include. Thus, these works do not seek to claim the universality of Animacy Hierarchy, but to highlight the explicative power it has for splits expressed in a specific language, or certain data. Clark & Begun (1971), for instance, demonstrated that the intrinsic or semantic features of an entity made it more or less prone to be a transitive subject in English, and that there was a progressive gradation for an entity to become a transitive subject, namely humans > animals > countable inanimates > concrete mass nouns > abstract mass nouns (Clark & Begun 1971: 36). The works about Cree by Darnell & Vanek (1976) and Joseph (1979) also discuss a hierarchy based on the inherent properties of entities. Hale (1973) and Creamer (1974), in seminal works about inversion in Navajo, even if they did not manage (or try) to formulate a universal animacy hierarchy explicitly, observed that a gradation could be established, based on the inherent properties of entities, such as movement, intelligence, specificity, causativity, or activity. Actually, Hale (1973: 305) defined the Animacy Hierarchy as a continuum related to the relative potency of entities, more than to animacy per se. Moreover, they were aware of the fact that certain entities may be promoted in the hierarchy, in cases such as personification, or from a mythological viewpoint (Creamer 1974: 40).

Frishberg's (1972) work on inversion in Navajo, which took as a starting point that by Hale (1973),<sup>9</sup> explained that entities considered animate in Navajo are those capable of moving by themselves in a wide sense. Consequently, an element such as rain or wind pertains to this animate group (Frishberg 1972: 261). Moreover, he warned that humans constitute a different category from that of animates, and that the differences between humans, animates, and inanimates are not so clear, since pronominalization, the use of possessives, or definiteness may commend an inanimate entity to the animate group (Frishberg 1972: 265). But undoubtedly, one of the most important contributions made by Frishberg from a historiographical perspective was the recuperation of the term *Great Chain of Being* or *Scala*

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proximal

obviative

proximal

distal

Inanimate

proximal

obviative

<sup>9</sup> Frishberg cites Hale's work as dating from 1972, even though it was actually published in 1973. Frishberg, as he himself admits (Frishberg 1972: 259), knew Hale's work before its publication.

*naturae* I mentioned in § 1, applied to linguistics, to refer to this human > animate > inanimate hierarchy.

## 2.2. Silverstein and Dixon

It has been commonly accepted that Silverstein and, secondarily, Dixon are the fathers of the Animacy Hierarchy in linguistics. Although we have already seen that there are several previous works, those of Silverstein and Dixon have been the starting point for most of the subsequent works on animacy.

The description of Dyrirbal and other Australian languages by Dixon (1972), and the following works about split ergativity contributed by Silverstein (1976) and Dixon (1979; 1994) reinforced the notion of hierarchy, which was simultaneously associated with the notion of prototypical agency. More than a continuum, Silverstein envisaged a hierarchy of binary features, which governs the possibility of an entity being agent or patient, depending on its ‘inherent lexical content’ (Silverstein 1976: 113). In this combination of binary features such as [ $\pm$ you], [ $\pm$ human], [ $\pm$ singular], [ $\pm$ masculine], or [ $\pm$ proper noun], that of [ $\pm$ animate] is located in a lower or higher position, depending on the language. Silverstein did not employ the term ‘animacy’ for defining the hierarchy, but established a subhierarchy that leads the general hierarchy, by which the first and second persons override the third one, as they are present in the speech act (Silverstein 1976: 117-118).

Dixon (1979) did not make reference directly to animacy either, in his famous paper about ergativity. For him, actually, the inherent semantic properties of entities (like animacy) are just one of the causes for split ergativity, together with the semantics of some verbs,<sup>10</sup> or their aspect/tense (Dixon 1979: 71). Thus, for Dixon, there is a scale of potential agentivity (cf. Figure 2, adapted from Dixon (1994: 85)), based on the possibilities of an

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<sup>10</sup> The semantics of verbs conditions the semantic features of the roles associated with them in the sentence: evidently, a verb such as *speak* will rarely have an agent that cannot do so (Dixon 1979: 86). Moreover, Dixon made an interesting distinction between Fluid-S marking and Split-S marking among intransitive verbs. In the first case, some verbs allow marking their subjects in a different way, depending on the volitionality or control of these subjects upon the action of the verb; thus, although the semantics of the verb is significant, the semantic properties of the roles are important too. In the second case, only the verbs, divided in different subgroups, determine completely the marking of the subject.

NP becoming the agent of a transitive sentence, depending on its properties.<sup>11</sup> NPs on the top of the scale will be potential agents, and lower ones will more likely be patients. When an NP is fulfilling an uncommon function for its position in the hierarchy, it will be morphologically marked, or will be more prone to suffering split ergativity (Dixon 1994: 86). At the same time, the author introduced the concept of egocentrism, by explaining that the prototypical agent is oneself, as human beings look at themselves doing things to others, more than as a patient.<sup>12</sup>

**Figure 2.** Dixon's scale of Potential Agentivity.

1st person pronoun > 2nd person pronoun > 3rd person pronoun > proper noun > human common noun > animate common noun > inanimate common noun

This scale combines person (1, 2, 3), type of nominal (pronoun > proper noun > common noun), and animacy (human > animate > inanimate) hierarchies. Already, both Dixon (1979: note 33) and Silverstein (1976: 118) proposed that it might be more accurate to put 1st and 2nd person pronouns together on the one hand, third person pronouns, deictics, and proper nouns on the other, and finally, common nouns at the end.<sup>13</sup>

In another work, Silverstein (1981: 235) indicated that inherent properties of entities are just one of the multiple factors that can affect case marking and assumed that the hierarchy may be based on the probability of an entity being presupposed in the speech act. The speaker and hearer are, obviously, the most expectable (Blake 2004 [1994]: 137).

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<sup>11</sup> In a 1994 work, Dixon employs a more neutral term than 'Scale of Agentivity', which is 'Nominal Hierarchy'. It is also the term chosen by Song (2001: 169), among other reasons, because of the difficulty to match the hierarchy of persons and that of animacy.

<sup>12</sup> The term 'I first,' by means of which the prototypical speaker tends to be oneself, here and now, was already mentioned, at least, in two works about word order, by Cooper & Ross (1975: 67) and Ross (1982). This principle governs some interesting hierarchies from the point of view of animacy: proximal > distal, animates > inanimates, humans > animates, adults > children, men > women, agents > patients, tangible > intangible, positive > negative, singular > plural, solid > liquid, countable > mass, and so on, even if the same authors also provide some counterexamples (Cooper & Ross 1975: 65-66; Ross 1982: 282).

<sup>13</sup> However, it seems that Dixon (1994: 88-90) preferred to keep the preeminence of the 1st person above others.

### 2.3. Moravcsik

Edith Moravcsik published a paper in 1978 in which she reached some of the conclusions traced also by Silverstein, even if the author admits that she could not consult Silverstein's work first-hand (Moravcsik 1978: note 12).

Moravcsik explained certain phenomena related to split ergativity, by means of what she called 'Scale of Activity':

Since there appears to be at least a vague correlation between activity or humanness and pronouns, and between nonactivity or lifelessness and nouns, and also one between activity and first and second person pronouns, and nonactivity and third person pronouns (since a larger percentage of pronouns have necessarily human referents than of nouns and since all first and second person pronouns must have human referents but not all third person ones must), we may set up the following 'activity-scale' (where "activity" decreases to the right): first and second person pronouns > third person pronouns > nouns (Moravcsik 1978: 255-256).

Therefore, Moravcsik concluded that there is a correlation between person and animacy (or humanness), and established a person hierarchy in which first and second person go together, after the third person, and finally the remaining persons. She also established a relation between the scale of activity and that of 'volitionality', as the voluntary involvement in an event entails also a bigger degree of agentivity (Moravcsik 1978: 256). Moreover, she considered the most active entities also the most prominent pragmatically.

### 2.4. Smith-Stark

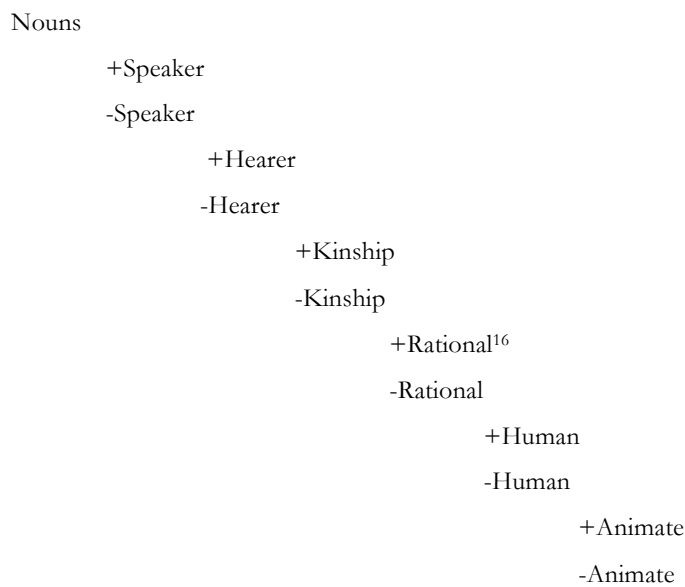
Smith Stark, who knew Silverstein's works, published in 1974 a paper in which he applied the notion of animacy to number.<sup>14</sup> He showed that the hierarchy employed by Silverstein for agentivity and split ergativity could explain some crosslinguistic phenomena related to number marking. He made a hierarchy of parameters such as [ $\pm$ human], [ $\pm$ animate], and [ $\pm$ kinship], and provided a scale similar to Silverstein's (cf. Figure 3, adapted from Smith-Stark (1974: 665)), which was called "of likelihood of participation in the speech

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<sup>14</sup> Actually, Silverstein's paper was sent to the Chicago Linguistic Society in January of 1973, and passed around among linguists; therefore, some works previous to its publication already cite it (cf. Smith-Stark 1974; Silverstein 1976: 164)

event” (Smith-Stark 1974: 664).<sup>15</sup> The speaker and hearer occupy, evidently, the higher positions. Concerning 3rd person, Smith-Stark argued that we usually address it to humans more than nonhumans, then to animals, and finally, to inanimate entities. To justify the position in the hierarchy of kin terms above others, he argued, with some problems, that it is possible that communication takes place first with family members more than with unknown people, but he admitted that, in this regard, although the hierarchy is claimed to be universal, there can be cultural differences that may force us to adapt it (Smith-Stark 1974: 665).

**Figure 3.** Hierarchy of Likelihood of Participation in the Speech Event.



## 2.5. Becker & Oka

Becker & Oka referred to the scale as ‘the cline of person’, and defined it as “an ordering of linguistic forms according to their distance from the speaker” (Becker & Oka 1974: 229). According to them, between the pronoun, canonically subjective and specific, and the common noun, objective, there is a universal gradation arranged according to the spatial, social, biological, or metaphoric distance from the speaker. Apart from the notion of universality, the inclusion of a person hierarchy headed by pronouns is interesting in this ap-

<sup>15</sup> Although the author admitted that he received inspiration from Silverstein’s work, some contributions by other authors related to number marking and animacy have named this hierarchy as “Smith-Stark’s” (cf. a couple of examples in Corbett (1996) and Brown *et al.* 2013).

<sup>16</sup> The parameter of rationality over that of humanness is included to explain some examples of Tamil, whose society, based on castes, considers only members of higher castes to be rational (Smith-Stark 1974: 662).

proach, as well as the notion of ‘egocentrism’ that allows for considering different types of distance from the ‘ego’, other than the purely Cartesian or biologically established one.

In Becker (1979: 251), different terminological varieties were collected for the scale in Figure 4, as well as some crosslinguistic examples of its realization in different phenomena.

**Figure 4.** Becker’s hierarchy.

Speaker > hearer > proper human noun > common human noun > animate > inanimate.

## 2.6. Timberlake

Timberlake, in two papers published in 1975 and 1977, tried to give an explanation to some instances of ‘actualization’. This author defined the term as the progressive extension of modifications as a consequence of a reanalysis (Timberlake 1977: 141), that is to say, the way in which the consequences of a reanalysis spread out. For Timberlake, this spreading is systematic, and controlled by a set of hierarchies governed by a principle according to which changes take place first in less marked contexts. Based on data from Russian and Finnish, he concluded that the hierarchies that govern some instances of actualization could be explained by a concept such as the degree of individuation of the participants. Moreover, he foresaw that such an individuation scale might be universal and, thus, applicable to crosslinguistic actualization phenomena.

Note that the different subhierarchies governed by individuation, which are important to explain the cases of actualization, are quite similar to those provided by other authors mentioned in this literature review. They have been signaled in Figure 5 (adapted from Timberlake (1975: 134; 1977: 162)).<sup>17</sup>

**Figure 5.** Subhierarchies of Individuation.

a. Individuated	>	non individuated	
b. Proper noun	>	common noun	
c. Human	>	animate	> inanimate
d. Concrete	>	abstract	
e. Singular	>	plural	
f. Definite	>	indefinite	
g. Countable	>	mass	
h. Neutral	>	emphatic negation	

<sup>17</sup> There are other hierarchies governing actualization; however, they are not related to the properties of the participants, but to the type of sentence, verbal tense, and other factors.

- |    |          |   |                          |
|----|----------|---|--------------------------|
| i. | Topic    | > | non topic                |
| j. | Modified | > | unmodified <sup>18</sup> |

Individuation is nothing but the ability of an entity to be perceived as more exclusive or individual than others.<sup>19</sup> It is important to note that these hierarchies in Figure 5 cannot be explained as a whole by the pure distinction between marked and unmarked, as some of them are contradictory (Timberlake 1977: 163).

## 2.7. Comrie

Comrie addressed the topic of animacy in several works (1975; 1979b; 1981 [1978]; 1989 [1981]). In these, he employed the term ‘Animacy Hierarchy’, even if he was aware that it is not accurate, as animacy cannot explain, as is well known, the precedence of 1st and 2nd persons in relation to the 3rd one, but he admitted that he used the term by force of habit. He said that it would be better to set up the hierarchy in terms of the degree of distance toward the speech act participants. Such a distance may manifest itself due to the inherent differences between the human features of the speaker and those of the referent, or due to the degree of individuation and prominence given by the speaker circumstantially (Comrie 1979b: 322-323).

Comrie dedicated a full chapter to animacy in his famous book about typology and universals (1989 [1981]), becoming the first person that studied the category in a monographic way. He claimed its universality by providing an animacy-based explanation to crosslinguistic phenomena.<sup>20</sup> As I have already pointed, for Comrie the linguistic phenomena explicable by means of animacy go beyond a gradation between humans, animates, and inanimates (Comrie 1989 [1981]: 264-265, 281-282) and, thus, concepts such as definiteness, individua-

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<sup>18</sup> By a pronominal or possessive, a genitive, or a prepositional phrase (Timberlake 1975: 126).

<sup>19</sup> In an interesting paper, Chafe (1976) explained that, with the aim of making the information arrive easier to the hearer, the speaker may treat an entity in a different way, depending on what the speaker thinks the hearer knows about that entity in the moment of the speech. These different statuses for an entity, “all have to do with the speaker’s assessment of how the addressee is able to process what he is saying against the background of a particular context. Not only do people’s minds contain a large store of knowledge, they are also at any one moment in certain temporary states with relation to that knowledge” (Chafe 1976: 27). Thus, leaving aside this “cumulated” knowledge, and based on the isolated and contextual knowledge of the hearer, the speaker can categorize and mark an entity as a) new/known, b) focus/not focus, c) definite/indefinite, d) subject/not subject, e) topic/not topic, or f) close to the hearer’s viewpoint/far.

<sup>20</sup> As we have seen, the universality of animacy, based on and crosslinguistic studies, had been already argued by authors like Smith-Stark, but they were reduced to just a feature or phenomenon.



tion, and topicalization arise again. In summary, he presents a set of apparently related subhierarchies, whose mixture explains the Animacy Hierarchy, as shown in Figure 6 (Comrie 1989 [1981]: 278-280).

**Figure 6.** Comrie's Animacy Hierarchy.

- a. 1st and 2nd person (SAP) > 3rd person
- b. Pronoun > non-pronoun
- c. Human vs. nonhuman
- d. Kin and proper nouns > those remaining
- e. Masculine vs. feminine (among humans)
- f. Size: big animals and humans > small animals and inanimates
- g. Inanimates: arbitrary distinctions in this group

On the other hand, it must be noted that for Comrie, the hierarchy, being universal, is not an absolute universal, since other grammatical phenomena may have an influence, and cause counterexamples (Comrie 1989 [1981]: 266). Moreover, the internal divisions in the hierarchy are not universal either, and must be adapted to the object under study. For this author, introducing a link in the hierarchy requires demonstrating that such a distinction is significant in at least one language. Finally, Comrie states that from a cognitive viewpoint, the hierarchy implies both distinctions based on the inherent properties of the entities, and circumstantial or referential ones.

## 2.8. Givón

Talmy Givón can be considered the father of the concept of topicality and hence one of the most often cited authors when talking about the Topicality Hierarchy. This scale hierarchizes the elements that are more probably topic. As shown in Figure 7, pure animacy is just one of the constitutive elements. For Givón (1976: 152), this hierarchy, which is often represented in a linear way, is actually a combination of different subhierarchies.

**Figure 7.** Givón's Topicality Hierarchy.

- a. Human > nonhuman
- b. Definite > indefinite
- c. More implicated participant > less implicated participant
- d. 1st person > 2nd person > 3rd person

## 2.9. Hawkinson & Hyman, Hyman & Zimmer

Hawkinson & Hyman (1974) stated that just an “animacy” scale was not enough to explain all the data they studied about Shona,<sup>21</sup> especially those related to the hierarchy of persons, and suggested the use of the term ‘Natural topic’ (Hawkinson & Hyman 1974: § 5), which was defined in this way:

The topic of a sentence is that thing or person which is being talked about. In that sense of the word it consists of “old information”. What people usually talk about are other people, and the phenomena which have been described in this paper are understandable in terms of some notion of the kind of things or types of events which people usually discuss with another (Hawkinson & Hyman 1974: 161).

Other work by Hyman & Zimmer (1976) about the strategies of French to mark the topic in subordinate clauses, especially in causatives, developed the definition and application of the scale of topicality to different phenomena. This scale, which establishes in which order some NPs are more prone to be topics, is related to the Animacy Hierarchy, above all in its extended version, since in some cases topicality is based on inherent features of the entities. As described in the introduction, the definition of the topic follows four general strategies, included in Figure 8 (Hyman & Zimmer 1976: 191).

**Figure 8.** Strategies for topic marking.

- a. Word order: the topic tends to be located before in the sentence.
- b. Case: the topic tends to be associated with the most animate cases.
- c. Person: 1st and 2nd persons are keener on being topics than the 3rd one.
- d. Definiteness: the topic tends to be more definite than indefinite.

And these strategies are instantiated, in the case of French, in the following Hierarchy of Person and Topicality, in which humanness is also present (Hyman & Zimmer 1976: 203):

**Figure 9.** Hyman & Zimmer’s Person and Topicality Hierarchy.

Nonhuman 3rd person < human indefinite 3rd person < human definite 3rd person < 1st and 2nd reflexive persons

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<sup>21</sup> Cf. something similar for other Bantu languages in Duranti (1979).

## 2.10. Trithart

Apart from the abovementioned contributions, one of the first works to explain the Animacy Hierarchy as a topicality hierarchy was by Lee Trithart (1979). He defended the idea that the possibility of passivization in Bantu languages is related to the notion of topic, and he differentiated three types of topics (Trithart 1979: 24):

- a. General level: from an anthropocentric viewpoint, humans show more interest in some subjects than in others.
- b. Discourse level: a sentence is related to its context.
- c. Sentence level: the subject and topic tend to match, and this topic precedes the rest of the information.

At the general level, he established an Animacy Hierarchy, as shown in Figure 10.

**Figure 10.** Trithart's Animacy Hierarchy.

- a. 1st/2nd person > 3rd person
- b. Humans > nonhumans
- c. Animates > inanimates
- d. Agents > non-agents

At the discourse level, the topic was defined by means of other hierarchies, such as background > foreground, > known information > new information, definite > indefinite, presupposed > stated, and so forth. Thus, according to Trithart, passivization in Bantu languages is blocked in the lower positions of these hierarchies.

## 2.11. Kuno & Kaburaki

In a work published in 1977 (as well as in some previous ones, cf., for instance, Kuno & Kaburaki (1975) and Kuno (1976)), these authors baptized a term whose connection to the Animacy Hierarchy would be ignored until the 1990s. In this paper the authors introduce the term 'Empathy Hierarchy' to explain some syntactic phenomena in English and Japanese. For them, empathy is a linguistic term that accounts for the degree of identification of the speaker with the participant(s) in the event the speaker is describing (Kuno & Kaburaki 1977: 628).<sup>22</sup> At the higher level of empathy, the speaker and the participant in

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<sup>22</sup> *Empathy* is a linguistic term different from that of *sympathy*, which is more emotional. Although they often go together, it is not always in that way (Kuno & Kaburaki 1977: 629). In a sentence like *John is insulting his friend*, we are empathizing with John, since we cite him by his proper noun, although we may have more sympathy with his friend, who is suffering John's insults.

the action that is being described are the same person, as in (1a). In its lower degree, however, the speaker describes the action of participants from a distance equal for all the participants, as in (1b). There are intermediate degrees in which the speaker is closer to one participant than the other, as shown in (1c). The element to which we feel more empathy will always be more prominent.

- (1) a. I insult Maria.  
 b. John insults Maria.  
 c. John insults his wife.

The degree of empathy follows these principles (Kuno & Kaburaki 1977: 631-632), whose violations have been exemplified in (2):

- It is not possible to empathize more with others than with oneself.
  - A sentence cannot have logical conflicts in its empathy relations.
- (2) a. \*Maria is insulted by me.  
 b. \*Maria's<sub>x</sub> husband<sub>y</sub> insults his<sub>y</sub> wife<sub>x</sub>.

Moreover, empathy governs different scales, as shown in Figure 11 (Kuno & Kaburaki 1977: 647-654).

**Figure 11.** Scales governed by empathy.

- a. Subject > object  
 b. Speaker > hearer > 3rd person  
 c. Human > animate > thing  
 d. Topic > not anaphoric discourse

As we can see, the hierarchies included in Figure 11 are not far from those cited in extended versions of animacy hierarchies provided by other authors, though not under the label of empathy.

## 2.12. Zubin

Discourse analysis is a field in which animacy is often cited, though not as much as in the study of case and ergativity. In a work about case selection in German depending on the focus, David Zubin mentions the egocentric nature of language. He contends that we process earlier and we pay more attention to the information about ourselves than to that about other humans, and even more to that about inanimates, especially if we do it in an unconscious way (Zubin 1979: 471). Moreover, he adds that pronouns follow the same

hierarchy, and that concrete nouns are more susceptible to becoming subjects (Zubin 1979: 472).

Zubin states that, from an egocentric viewpoint, the speaker focuses his interest on entities more similar to himself, regardless of the prominence of other entities due to the context.<sup>23</sup> In his study, he provides the hierarchy in Figure 12, which I have adapted from Zubin (1979: 478, 495).

**Figure 12.** Zubin's Hierarchy of Egocentrism.

Speaker (ego) > hearer > other central human > other peripheral human > inanimate concrete >  
human abstract > abstract

Notice how inanimate concrete elements are, in this case, in a higher position than abstract elements related to humans, such as thinking or knowledge.

### 2.13. DeLancey

In a famous paper published in 1981, Scott DeLancey argued that Silverstein's hierarchy was not a hierarchy of animacy or agentivity, but of topicality, or rather, of viewpoint. Thus, he wanted to give a unified explanation to all the examples of split ergativity, including those that seemed not to be explainable by the inherent properties of entities, such as the person hierarchy, or splits based on the aspect of the verb, among others (cf. Song 2001: 172).

He employed two concepts: the *attention flow* and the *point of view*. The first is associated with the discourse production, and affects the linear order the speaker wants the hearer to receive the entities present in the discourse. It tends to be iconic and natural. For instance, a chronological order can be employed, in which what happens first goes earlier or, in relation to case marking, an agent can precede a patient (DeLancey 1981: 632-634). On the other hand, following Fillmore, DeLancey explains that the point of view represents the way in which the speaker provides the information; from where he is looking to what is

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<sup>23</sup> Recall that Jespersen saw already in 1924 that “[i]t is, however, impossible to draw a hard and fast line of demarcation in English between an animate gender, represented by *he* or *she*, and an inanimate gender, represented by *it*. For *it* may be used in speaking of a small child or an animal if its sex is unknown to the speaker **or if his interest in the child or animal is not great**: the greater personal interest one takes in the child or animal, the less inclined one will be to use *it*. (...) On the other hand, things may, in more or less jocular style, be mentioned as *he* or *she*, by way of indicating a kind of personal interest” (Jespersen 1924: 235. Emphasis added).

happening. The splits take place when the attention flow and the viewpoint are opposed (DeLancey 1981: 639-640), that is to say, when one of these is no longer the most natural option, according to an anthropocentric empathy scale, in the sense of Kuno & Kaburaki (cf. § 2.11). DeLancey departs from an anthropocentric view, since according to him, the entities that more often make up the viewpoint of an action are the hearer and the speaker, and the empathy toward other entities decreases the farther we get away from them (DeLancey 1981: 645).

#### **2.14. Wierzbicka (and Silverstein)**

The year 1981 was especially prolific in relation to discussions about the nature of the Animacy Hierarchy. Besides the already mentioned book by Comrie (1989 [1981]), and DeLancey's (1981) paper, there were other discussions.

Wierzbicka's (1981) paper about case marking is, in my opinion, an interesting critique to Silverstein's, Dixon's, and Comrie's conceptualization of the hierarchy as an agentivity or animacy scale. Apart from reporting Comrie's terminological laxity, she proposed, providing examples from several languages, that the hierarchy is actually a scale of topicality or conceptual proximity, in which 1st and 2nd persons are always more topical than the 3rd one (Wierzbicka 1981: 61 ff.).

However, she agreed with Silverstein, Dixon, Comrie, and others in considering language as egocentric, putting the speaker over other entities. However, in her paper she demonstrated with empirical data that agentivity is not the most canonical property of the 1st person, but just the opposite: it is an experiencer. The speaker gets interested, not in what he does to other entities, but in what other entities do to him, or how other's actions have an influence on him. He is especially sensitive to what he feels and affects him, and whereas it is easy for him to determine if actions carried out by himself are voluntary or not, it is irrelevant for him whether other's actions are volitional or not, since this does not change what he experiences from these actions (Wierzbicka 1981: 49-50). To be sure, the ability of an entity to be a topic puts it in a particular level in the scale. For example, a pronoun would not take an ergative marker in a case of split ergativity, not because of its prototypical agentivity, but due to its condition of canonical topic, which is unmarked (cf. a good summary of this discussion in Blake (2004 [1994]: 136 ff.)).

I will not expand on the discussion, but Silverstein (1981) replied to Wierzbicka arguing that the hierarchy was actually a hierarchy of entities whose reference is presupposed to a greater or lesser extent in the speech act. Thus, the speech act needs a speaker and a hearer.

At the same time, pronouns presuppose the existence of an anaphoric element, proper nouns, and kin terms presuppose the knowledge by the speech act participants of the entities they refer to, and so on. Wierzbicka (1982) replied by considering Silverstein's new proposal too intricate and hard to understand, even if, in my opinion, Silverstein was admitting, at least partially, that Wierzbicka was right.

### 2.15. Mallinson & Blake

This same year, 1981, Mallinson & Blake, who knew and expanded on Wierzbicka's work, published a book in which they made constant references to Silverstein's hierarchy, and provided crosslinguistic evidence of different phenomena related to it (Mallinson & Blake 1981). However, they also criticized his definition as an agentivity hierarchy. They based the critique, on the one hand, on the assumption that pronouns, higher in the scale, cannot be patients. On the other hand, in their opinion, although the hierarchy explains examples of case marking, the variety of phenomena in which case is involved is not always related to agentivity (Mallinson & Blake 1981: 82 ff.). After a corpus-based analysis, they concluded that, concerning agentivity, the only possible and evident distinction is that of human/nonhuman. From their point of view, departing from an egocentric viewpoint, the hierarchy more likely gathers the interest that different entities can awaken in the speech act participants, and not agentivity. They employed the term 'Topicality Hierarchy' (Mallinson & Blake 1981: § 2.8.1.2) that, according to them, justifies the variety of phenomena in which the hierarchy manifests itself, including those related to case marking, which are difficult to be explained by means of the notion of agentivity.

For Mallinson & Blake the Topicality Hierarchy includes both that of person and animacy, which materializes, more or less, as in Figure 13, but also elements such as definiteness or specificity (Mallinson & Blake 1981: 158).

**Figure 13.** Mallinson & Blake's Topicality Hierarchy.

1 > 2 > 3 > human > animate > inanimate

Moreover, Mallinson & Blake (1981: § 2.5.3) introduced a concept that is, in my opinion, extremely important for the application and theoretical interpretation of the hierarchy: the 'relative hierarchical marking'. By means of this concept, they showed that there are actually two types of hierarchies. In the first case, an entity occupies in the hierarchy a position that is determined by the inherent properties of this entity. In this case, the hierarchy only surfaces in a theoretical way, by means of the inter- or intralinguistic comparison, as I will explain now.

Consider the examples in (3) (own knowledge). In these, the employment of the preposition *a* depends exclusively on the inherent properties (animate vs. inanimate) of *amiga* and *mesa*, but not on the relation between them. Thus, a hierarchy in which *amiga* is higher than *mesa* can only be established from a theoretical viewpoint, by comparing an element such as *amiga* with another like *mesa* in Spanish, or by comparing similar phenomena with other languages that establish the cut-off point at other level of the hierarchy. However, when the hierarchical position of an entity is determined by the relative position of another entity in the hierarchy, that is to say, when the position is defined in a relative way, this hierarchy is completely operative inside the language itself, and belongs to the grammar of this language. That is the case for Cree, for instance, as in this language the inversion marking depends on the relative position the agent and the object occupy in the hierarchy.<sup>24</sup>

Spanish. Indo-European.

- (3) a. he visto a la amiga  
 have seen PREP the friend  
 'I have seen the friend.'
- a'. \*he visto la amiga  
 have seen the friend  
 'I have seen the friend.'

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<sup>24</sup> A critique to this approach was made by Minkoff (2000). This author argues that the Animacy Hierarchy does not operate directly upon the relative animacy of the agent and the object, but that it is part of the way in which human beings process the language. On the one hand, a) the processor prefers to analyze the structures according to an unmarked pattern and, on the other, b) it predicts that the more animate a potential agent is, the better the processor will value this structure. It is in b) that Animacy Hierarchy is applied universally. In English, an SVO language with fixed word order, the prediction says that the agent will be the first NP and thus, the only potential agent. Consequently b) only operates with this NP, and not with the postverbal one. Conversely, in a language such as Mam, with a V(S)O order, in which dropping the S is possible and O cannot be more animate than S, a) cannot predict which function the postverbal NP will have (it can be either S or O), until a following NP is identified: only then it can be stated that the first one is the S. Therefore, there is a moment in which both NPs can be potential agents: then, it is b) that shows its preference for the most animate to be the S. If the most animate is the second NP, a) is violated and if a) determines that S is the NP closer to the verb, b) is violated.



b. he visto la mesa  
 have seen the table  
 ‘I have seen the table.’

b’. \*he visto a la mesa  
 have seen PREP the table  
 ‘I have seen the table.’

## 2.16. Foley & Van Valin

Both together and separately, these authors have addressed the Animacy Hierarchy in several works. In a shared paper about the notion of subject (Foley & Van Valin 1977), the authors explain that the information in a sentence is arranged according to two factors: a) the role of each NP, fixed by the semantics of the verb, and b) the internal arrangements of the NPs, based on their *referentiality*. This referentiality may be determined, on the one hand, by external factors such as definiteness or what it is known (givenness) and, on the other, by the inherent ability of these NPs of being topics. This ability is hierarchized as in Figure 14 (Foley & Van Valin 1977: 294).<sup>25</sup>

**Figure 14.** Foley & Van Valin’s Referentiality Hierarchy.

Speaker > hearer > human proper noun > common proper noun > animate > inanimate

Therefore, an NP will be considered a referentiality peak when it is most prominent in a sentence, either due to its external features (a), the inherent ones (b), or both.

In other work (Foley & Van Valin 1985), they made a binary distinction between the factors that determine the status of an NP in the discourse, which may show up by means of different morphosyntactic structures in a clause. Some factors are contextual and vary depending on the discourse context, and others are based on the inherent properties of NPs, and are unchanging and constant.<sup>26</sup> Among the former set, we can find a) referentiality, which is the extent to which an NP makes reference just to one single entity in the uni-

<sup>25</sup> The authors employ the term ‘Referentiality Hierarchy’, but they admit that it has several names.

<sup>26</sup> The difference between both, although with a different terminology, was clearly explained in a work by Schmid (2007: 119-120). He gave the term ‘cognitive salience’ to that which implies that an entity becomes the hearer’s center of attention in a particular moment. Conversely, the ‘ontological salience’ is not temporal, but has to do with the properties that entities have permanently: some entities have the quality of being more prominent than others intrinsically. Schmid cites a clear example: we pay attention to a dog before we do to the floor, since the former runs.

verse, as well as b) definiteness, or the extent to which a hearer can identify an entity as unique, and thirdly, c) the extent to which an NP makes reference to new or already known information (Foley & Van Valin 1985: 283-286). We can change the way of making reference to an entity depending on the context: *a boy*, *John*, or *my neighbor* can be co-referential, and it is the discourse that, transitorily, determines the best option.

The Animacy Hierarchy operates, according to the authors, only in cases in which the discursive status of an NP is determined by its inherent properties, apart from any contextual condition (Foley & Van Valin 1985: 287). Even if they employ the term ‘animacy’, they actually define the hierarchy as a ‘Prominence Hierarchy’, similar to Dixon’s hierarchy, which has been provided in Figure 15 (Foley & Van Valin 1985: 228).<sup>27</sup> As explained by the authors, in a discourse, the speaker and the hearer whose positions are exchanged occupy the higher levels of the hierarchy because of their presence in the speech act, against the 3rd person, which may be present or not. Moreover, inside the third person, some languages add further distinctions in which humans are situated above animates, and both over the inanimates. In some languages, even these groups can be subdivided, creating distinctions, for instance, between proper and common nouns, and so on.<sup>28</sup>

**Figure 15.** Inherent Prominence Hierarchy.

Speaker/hearer > 3rd person pronoun > human proper noun > human common noun > animate > inanimate

### 2.17. Allan

Keith Allan (1987) hierarchized the different scales, which establish the precedence of the different NPs in a sentence in English. In this language, the hierarchical arrangement of the different scales is that in Figure 16 (Allan 1987: 51).

**Figure 16.** Allan’s Precedence Hierarchy.

- a. Familiarity hierarchy
- b. Topic < comment, and given < new
- c. Universal sequencing conventions

<sup>27</sup> This term was already employed by Fillmore (1977) to explain that when a verb projects a scene, some entities stand out more than others, depending on a hierarchy in which, from a generativist approach, the higher element assumes the subject function in the inner structure. For Fillmore, concepts such as humanity, movement, definiteness, and total/partial affectedness determine this hierarchy.

<sup>28</sup> In my opinion, not all the elements in the hierarchy are inherent. Employing a pronoun, a common noun or a proper noun has to do with circumstantial factors, governed by the discourse.

- d. Definicity and referentiality hierarchies
- e. Personal, social status, and role hierarchies
- f. Dominant descriptor hierarchies
- g. Formal hierarchies

The first hierarchy (a) establishes that the most proximal entities and those to which we have more empathy are located before. In b), Allan includes two related hierarchies, which are at the same level. The third scale (c) includes the arbitrary agreement of the community to put one element before another, like the letters in the alphabet. The definite precedes the indefinite and the referential what it is not so (d). In e) Allan includes scales in which one entity dominates others, in some cases, though not always, due to cultural factors (Allan 1987: 57). It includes the Person Hierarchy, which locates 1st person over the second, and these over the third, followed by higher animals, other organisms, inorganic matter, and abstracts. Moreover, this hierarchy may be modified by two other hierarchies related to the social status: man > woman > child, and entities with more authority (gods, kings, and so on) over these with less authority. The scales in f) establish that, due to diverse reasons, the denotation of an expression can be more significant, better, or more receptive (Allan 1987: 69). That includes scales such as positive > negative, big > small, inside > outside, and so on. Finally, the formal hierarchies in g) base the precedence in formal features such as the grammatical category, and not in semantic properties: pronouns > nouns > descriptions, complex > simple, and so forth. Thus, for Allan, Silverstein's hierarchy is a combination of the person hierarchy, and other more formal hierarchies.

Although animacy is not overtly stated, the relevance of this work lies in the hierarchical organization of different scales, which also explains counterexamples. Scales higher in the hierarchy must explain finding a counterexample in a hierarchy.

### 2.18. Deane

Paul D. Deane (1987) applied Silverstein's hierarchy to the employment of possessives, the Saxon genitive, and the preposition *of* in English. He also defended topicality and prominence as the basis for this hierarchy. The same author treated this issue more extensively in a book addressed to topic and focus (Deane 1992), in which he considered Silverstein's hierarchy a hierarchy of entrenchment (Deane 1992: 194).

The 'entrenchment' is a concept introduced by Langacker (1987: 59), and measures the familiarity a concept has in our cognitive organization (cf. equally, Schmid (2007: 118-119)). According to Langacker, the abundant employment of a structure enhances its entrench-

ment. Therefore, new structures become more familiar as their use increases, and are easier to activate and employ; less hard to process and to identify (Deane 1992: 35). The most entrenched concepts tend to be more prominent, and they occupy a position of topic more often, against the focalized elements, which are not that entrenched, and are more difficult to be predicted by the hearer (Deane 1992: 191-193).

Thus, entities can be hierarchized according to their degree of entrenchment, as shown in Figure 17 (Deane 1992: 194-195).

**Figure 17.** Entrenchment Hierarchy.

- a. Frequency of use: more used > less used
- b. Accessibility: concrete elements > abstract elements
- c. Acquisition: before > later
- d. Way of knowledge: sensomotor > abstract
- e. Egocentrism: closer to oneself > further from oneself
- f. Agentivity: agent > patient

Moreover, entrenchment is related to topicality, viewpoint, and empathy. Entrenched entities tend to be topic, the speaker empathizes more with them (cf. Kuno & Kaburaki 1977), and their viewpoint is often taken (DeLancey 1981; Song 2001). Obviously, the most entrenched entity is always oneself (Deane 1992: 196-197).

Thus, for Deane, Silverstein's hierarchy is an entrenchment hierarchy, which is represented in Figure 18 (Deane 1992: 199). It extends from the most concrete to the most abstract; from the most tangible to the intangible, and from the most proximate and imminent, to what is not, and thus, from definite to indefinite. It is egocentric, as it situates at the bottom the entities that are less manipulable and perceptible by oneself, then he puts physical objects, which can be more perceivable and upon which human beings can have influence, thereafter he situates the animate entities, which are able to act like humans, and finally, the higher level is for humans. Each step is closer to what is a person, and its ability to interact imminently with another (Deane 1992: 201).

**Figure 18.** Deane's Entrenchment Hierarchy.

- Inclusive 1st person personal pronouns > 1st person singular and exclusive personal pronouns > 2nd person pronouns > 3rd person anaphoric pronouns > 3rd person demonstrative pronouns > proper nouns > kin terms > status human nouns > animates > perceptible discrete objects > containers > spaces > concrete sensual entities > essences.

### 2.19. Lakoff

Lakoff (1987), who does not talk explicitly about the Animacy Hierarchy, made, in my opinion, an interesting contribution in favor of the importance and universality of this category from a cognitive viewpoint, regardless of crosslinguistic differences. He tried to explain the way in which human beings categorize the entities around them.

There is not a unique, absolute, and universal way of categorizing entities; for this purpose, human beings depart from their own experience and imagination. Thus, the information a human being receives from his senses, the ability of movement of the entity, and cultural background on the one hand, and metaphors, metonymies, and mental imaginery on the other, condition the way in which an entity is categorized (Lakoff 1987: 8).

In the 6th chapter of his book, Lakoff studied the four-gender system of Dyrbal from a cognitive perspective, and concluded that animacy was a significant factor for gender classification, as he considered that in that system there is a clear division between humans and animates, against the remaining entities (Lakoff 1987: 102). However, the consideration of what is animate or not is neither biological nor universal, but language-specific, and Lakoff explained how this is determined by the human mind.

There is a central category that defines gender. The remaining entities participate in this gender, as far as they share properties—which can be physical, but also influenced by mythology, beliefs, and encyclopedic knowledge—with this central category, or with other categories already belonging to this gender. The categorization is made by means of links between categories that share one or more than one property with at least one of the entities belonging to this gender. Thus, under the same gender, we can find entities that seem to be completely unrelated, but that actually share at least a property with other element in the same gender, which, at the same time, shares a property with another one. Thus, two entities in the same gender may not share any property, but do have properties that tie them to other entities, as in a chain.

Because of this, in Dyrbal, a woman, the sun, and a caterpillar share the same gender, in a linked way: the woman is the central category, which defines the gender, because it is the most animate entity; the sun is considered feminine because of mythological reasons, and hence, it shares gender with women. Finally, the caterpillar pertains to the same gender, only because of its quality of being itchy, similar to the sensation of burning, which is a common property of sun.

In summary, the categorization of entities, even to determine whether they are animate or not, is based on a radial system in which there are some central categories, from which the categorization of the remaining is made. It is not surprising, moreover, that humans and, more concretely, the first person or ‘ego’, are the most common central categories.

## 2.20. Croft

The Animacy Hierarchy was also addressed by Croft (1990) in a subchapter of his book. His contribution came from showing, although he was not the first to do so, that Silverstein’s (1976) and Dixon’s (1979) hierarchies can also explain other linguistic phenomena, such as splits in number distinction, case assignment, verbal indexation, and focalization.

Croft employed the term ‘extended animacy’ (Croft 1990: 112-113) to justify, once again, that in this hierarchy other hierarchies coexist apart from that of animacy. According to the author, in the extended Animacy Hierarchy we can find three already mentioned subhierarchies, as shown in Figure 19. These can be arranged linearly as in Figure 20. As can be seen, subhierarchies are also arranged hierarchically, since each of them operates in a level of the hierarchy (cf. something similar in Allan’s approach, in § 2.17). Apart from these subhierarchies, there is a further one, namely definite > specific > unspecific, which, for Croft, may be above the whole extended Animacy Hierarchy.

**Figure 19.** Subhierarchies in the extended Animacy Hierarchy.

- a. Person Hierarchy: 1/2 > 3
- b. Referentiality Hierarchy: pronoun > proper noun > common noun
- c. Animacy Hierarchy: human > animate > inanimate

**Figure 20.** Croft’s extended Animacy Hierarchy.

1st/2nd person pronouns > 3rd person pronouns > proper nouns > common human nouns > common animate nouns > common inanimate nouns.

Croft referred to the hierarchy as a prototype. From my point of view, this is extremely important for typological research, as it justifies its applicability to apparently unconnected crosslinguistic phenomena, and presupposes the existence of major crosslinguistic variation in the ways of solving the problems derived from non-prototypical instances, such as an inanimate pronoun, or the condition of agent for an entity low in the hierarchy, among others.

## 2.21. Langacker & Talmy

Langacker, in the second volume of his book (Langacker 1991), stated that for an entity to be characterized as a subject, we must know what its prominence is with respect to the other entities in the sentence (Langacker 1991: 306). Prominence is related to topicality: the more topicality, the more prominence and more options to become a subject (cf. Schmid 2007: 131 ff.).

Topicality is measured by means of four factors. *Figure/ground*: these concepts, inherited from Gestaltist philosophy, applied to linguistics, account for the most prominent element for the speaker (figure), against the remaining participants (ground), which can, in turn, be hierarchically arranged among them (Talmy 2000: 312; Schmid 2007: 128).<sup>29</sup> As pointed out by Talmy, who is one of the pioneers in the use of this terminology (cf. Talmy 1975; 1978), the possibilities of an entity to be figure depend on its inherent properties, its ability to be perceived against others, and of its status of activation in the discourse. The author summarized them in Figure 22 (Talmy 2000).

The second factor affecting the topicality of an entity is its semantic role, in which the condition of agent is predominant.

The third factor is related to the inherent properties of entities, lacking in the remaining participants. Langacker (1991: 307) hierarchized this inherent topicality in a scale that he termed ‘of empathy’, like Kuno & Kaburaki (1977), which can be seen in Figure 21.

**Figure 21.** Langacker’s Empathy Hierarchy.

Speaker > hearer > human > animal > physical object > abstract entity

Definiteness constitutes the fourth factor that affects the topicality of an entity. It follows the scale in Figure 23, which is completed by the hierarchies in Figure 24 (Langacker 1991: 308).

Moreover, for Langacker (1991: 171) the whole is more prominent than the parts that make it up, as well as a physical object is more than an abstract one, and a human being, above all.

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<sup>29</sup> In Talmy’s (2000: 312) words, “The Figure is a moving or conceptually movable entity whose path, site, or orientation is conceived as a variable, the particular value of which is the relevant issue. The Ground is a reference entity, one that has a stationary setting relative to a reference frame, with respect to which the Figure’s path, site, or orientation is characterized.”

**Figure 22.** Features of the Figure and Ground.

	Figure	Ground
Definitorial characteristics	has unknown spatial (or temporal) properties to be determined	acts as a reference entity, having known properties that can characterize the Figure's unknowns
	more movable	more permanently located
	smaller	larger
	geometrically simpler (often pointlike) in its treatment	geometrically more complex in its treatment
Associated characteristics	more recently on the scene/in awareness	more familiar/expected
	of greater concern/importance	of lesser concern/importance
	less immediately perceivable	more immediately perceivable
	more salient, once perceived	more backgrounded, once Figure is perceived
	More dependent	more independent

**Figure 23.** Langaker's Definiteness Hierarchy.

Definite > specific indefinite > unspecific indefinite

**Figure 24.** Additional hierarchies affecting topicality.

- a. Proper noun > common noun
- b. Countable > mass
- c. Singular > plural
- d. Concrete > abstract
- e. Pointlike > extended

## 2.22. Dahl & Fraurud

Dahl's & Fraurud's works treated animacy from the viewpoint of the analysis of discourse. Dahl & Fraurud (1996: 59), like other authors, argued that the Animacy Hierarchy and its effects can be explainable by the ability of topicalization of an entity, or what they call 'viewpoint'. They showed that topicalized entities are more often pronominalized, and that animate entities are most often topic.



The world is necessarily seen and described from the viewpoint of animate entities; thus, there is a relation between animacy and viewpoint (Dahl & Fraurud 1996: 60).<sup>30</sup>

Moreover, Dahl & Fraurud (1996: 62-63) and Dahl (2000: 100) explained, like Lakoff, that human beings do not hierarchize entities according to their animacy in a linear and definitive way, since some NPs can become animate metaphorically, metonymically, and so on, in some contexts.

Finally, they also criticized the inclusion of the person hierarchy in the Animacy Hierarchy, as this mixes inherent properties of entities with grammatical categories.

From an anthropocentric viewpoint, the individuation of an entity, that is to say, its ability to be more singular than others, is significant. The more information we have about an entity, the more individuated it is, and we choose a way to make reference to it depending on the degree of individuation: by means of a pronoun, a proper or common noun, determiners, and so forth (Fraurud 1996: 79 ff.).

From the point of view of ontology, or the way we know and individuate an entity, Fraurud distinguished individuals, functionals, and examples (cf. (4)). The former are intrinsically individuated (cf. (4a)), functionals are individuated because they are anchored to another element that individuates it (cf. (4b)), and the latter are just an example of a wide group, thus being the less individuated. In this same order, the most individuated entities are more determined, and keener on being referenced as a pronoun. That is why a sentence such as *a John's nose* is ungrammatical.

- (4) a. John  
       b. John's nose  
       c. a glass

### 2.23. Janda

Laura A. Janda (1996), in a paper on Slavic declension, offered a brief introduction about animacy in which some points were clarified. She set out the hierarchy as a continuum between oneself and the other, whose internal divisions changed from a language to other.

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<sup>30</sup> In Dahl's and Fraurud's works any citation to DeLancey's (1981) work is lacking, although he mentioned terms like empathy and viewpoint several years before.

She also defended the anthropocentric conceptualization of the world, and provided an interesting citation by Johnson:

The fact of our physical embodiment gives a very definite character to our perceptual experience. Our world radiates out from our bodies as perceptual centers from which we see, hear, touch, taste, and smell our world. (...) From our central vantage point we can focus our attention on one object or perceptual field after another as we scan our world (...). At a certain distance from this perceptual center our world “fades off” into a perceptual horizon which no longer presents us with discrete objects (Johnson *apud* Janda (1996: 325)).

Therefore, our perception of the world is egocentric and a higher level of precision in grammatical distinctions is found in ourselves and our environment, which is what we perceive more sharply and is more prominent (figure). The farther we move away, these distinctions fade out (ground). The remaining figures are located between the prototypical figure, which is oneself, and the ground, by following a hierarchy whose links must be adapted for each language or linguistic phenomenon. Pure animacy is just one of the elements that constitutes the scale, together with definiteness, individuation, and others. The hierarchy she arranged for the analysis of her data is that in Figure 25 (Janda 1996: 326).

**Figure 25.** Continuum between the oneself (figure) and the other (ground).

Humans like self > humans not like self > animals > small, countable, concrete and discrete objects > other countable objects > parts of objects > masses and collectives > landscape features > ambient, intangibles, and abstractions

## 2.24. Whaley

Whaley (1997: 172-174) summarized the previous works related to animacy. She considered that animacy is universal and based on cognitive aspects of the human beings, but she said that its realization might vary crosslinguistically, and affect different parts of grammar. Like other authors, she explained that the hierarchy includes more elements than pure animacy, such as definiteness, empathy, and egocentrism.

For Whaley (1997: 178-179), the universality of the hierarchy comes from various factors. Apart from its appearance in typologically, areally, and genetically unrelated languages all over the world, it works for explaining phenomena that otherwise would lack an explanation. However, the specific application of the hierarchy to a language may provide counterexamples, which must be statistically irrelevant. The abundance of these would lead us to a reconsideration of the universality of the hierarchy, or of the internal levels.

### 2.25. Yamamoto

Mutsumi Yamamoto's (1999) book, though not often cited, constitutes a step forward in the confirmation of animacy as an independent cognitive category for the explanation of diverse linguistic phenomena. Although the book focuses on referentiality in English and Japanese, the first part offers an interesting retrospective about animacy, apart from providing a precise definition of the concept and its hierarchy.

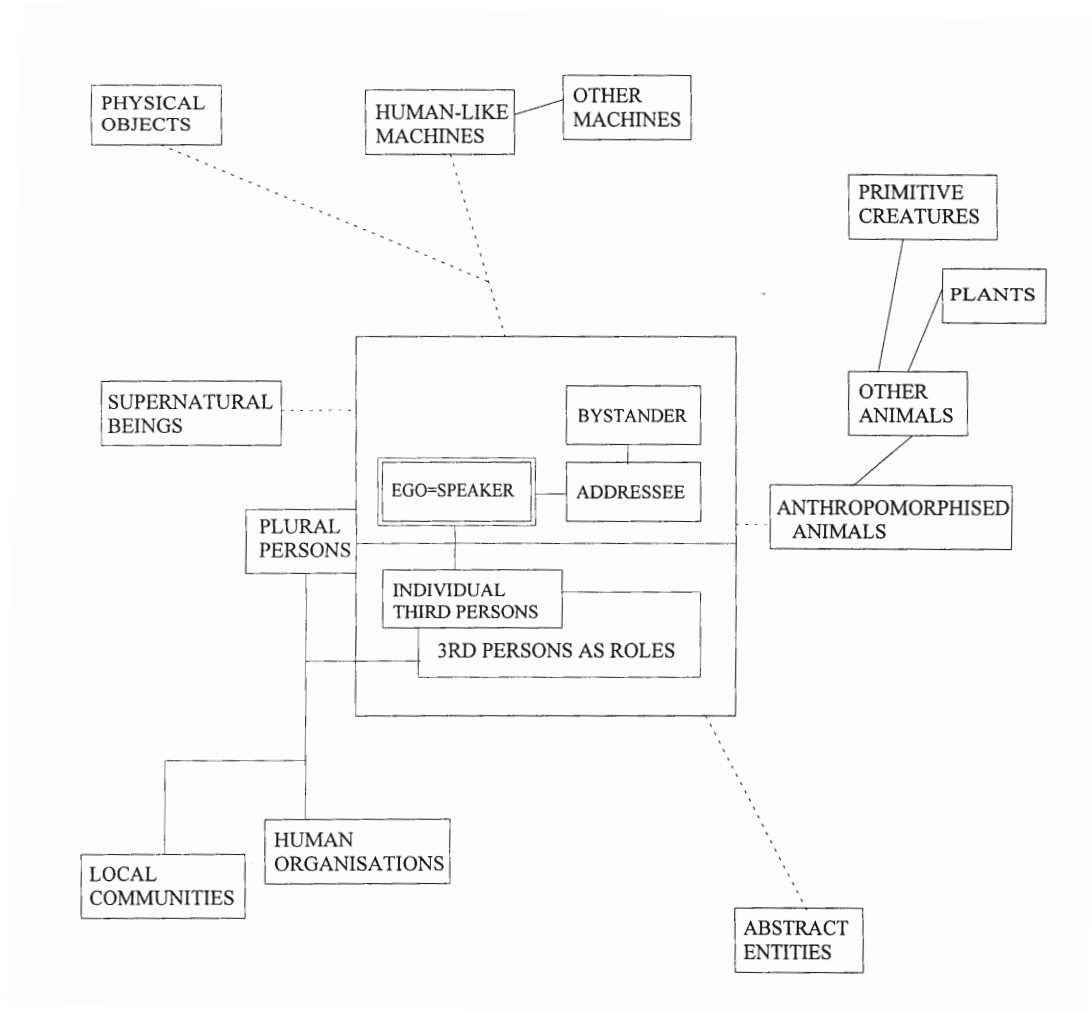
In Yamamoto's approach, the Animacy Hierarchy is a cognitive scale whose central axis is pure animacy, going from humans, through animals, to inanimates, with which other scales intertwine. It is without any doubt something progressive and hierarchized, but not linear, which departs from an anthropocentric view of language.

For the author, this humanness or personicity, that is to say, the consideration of human beings as the most important element from which the vision of the rest of the universe is projected, is universal (Yamamoto 1999: 9-10). Other categories such as empathy, sensibility, volitionality, ability of movement, intelligence, and control are associated with this anthropocentrism. Yamamoto (1999: 16) considered that the concept of empathy taken from Kuno & Kaburaki (1977), together with that of anthropocentrism, plays a central role, which can account for the remaining elements implied in animacy. Based on one's own experience, on the consciousness of one's own existence and that of other entities, one considers that as far as these entities share properties with him, they must experience the same as oneself, which is the basis of empathy. Even if the cognitive system is anthropocentric, it is not universal, and thus, the degree of empathy a human being feels for other may be culturally or contextually conditioned, as suggested by Lakoff (1987).

On the other hand, Yamamoto (1999: 25-27) considered that there is a person subhierarchy and a further individuation subhierarchy, which is based on the possibility of individuating an entity depending on the way we refer to it. Although in other words, Yamamoto certainly follows Croft (1990) and contends that the scale is based on the biological animacy, the Person Hierarchy, and the Individuation Hierarchy, which is similar to that of Referentiality in Croft's terms.

I consider it especially interesting to reproduce the cognitive radial schema of animacy proposed by Yamamoto (1999: 38) in the same vein as Lakoff, as it rejects linearity and accounts for the elements that can be important for a human being to consider some elements more animate than others (cf. Figure 26).

Figure 26. Yamamoto's radial behavior of animacy.



## 2.26. Corbett

Corbett's monographs about gender (1991), number (2000), agreement (2006), and features (2012) provided many of examples of the influence of animacy in grammar, which were employed to formulate some typological generalizations and to trace an Animacy Hierarchy.

From data affecting number, and departing from Smith-Stark's (1974) generalizations, Corbett provided the Animacy Hierarchy in Figure 27 (Corbett 2000: 56). He admitted that the hierarchy is a combination of the hierarchies of person (1 > 2 > 3), nominals (pronoun > common noun), and pure animacy (humans > animates > inanimates), and showed

some doubts about whether 1st and 2nd person should be separated, and whether there are enough data to consider that pronouns and common nouns show a different behavior.<sup>31</sup>

**Figure 27.** Corbett's Animacy Hierarchy.

Speaker (1st person pronoun) > hearer (2nd person pronoun) > 3rd person > kin terms > humans  
> animates > inanimates

Corbett (2000: 62-63) broached an important discussion about the semantic or formal nature of the hierarchy. He focused on finding out whether the position of 3rd person pronouns in the hierarchy depends on their quality of pronoun, or on the semantic features of its referent, which can be either animate or inanimate.<sup>32</sup> It seems that there are examples of both tendencies.

Moreover, this author talked about the nature of Animacy Hierarchy as a typological abstraction extracted from the functioning of a certain phenomenon in different languages. As an example, he said that it can be stated that animacy favors agreement and thus, from the typological comparison, an animate > inanimate hierarchy can be traced. However, data from specific languages such as German allow further distinctions, such as those between concrete and abstract inanimates, or between humans and animates (Corbett 2000: 184-185).

## 2.27. Siewierska

Anna Siewierska published a book in 2004 focusing on the typology of the category of person. There, she explained that person agreement can be conditioned by the inherent or discursive properties of the controllers (Siewierska 2004: 148 ff.). Agreement is more common with entities higher in the Hierarchy of Topicality, also called of 'Animacy', of 'Person', or 'Accessibility'. This hierarchy is made up of some subhierarchies, as can be seen in Figure 28 (Siewierska 2004: 149). However, this author also admitted that the hierarchical arrangement of 1st and 2nd person is problematic (Siewierska 2004: 150-151). Moreover, Siewierska showed that the subhierarchy of animacy is not independent from others such as that of person or nominals, since 1st and 2nd person must be animate, as well as the pronouns by which we refer to them (Siewierska 2004: 154). Besides, the Refer-

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<sup>31</sup> Pronouns, especially those of 3rd person, are problematic, because they can occupy a high position in the hierarchy either by the condition of being pronouns, or due to the animacy of their referent (Corbett 2000: 62).

<sup>32</sup> 1st and 2nd person personal pronouns are not testable, since they are always animate.

entaility and Focus Hierarchies do not pay attention to the inherent properties of entities, but to their situation of definiteness or topic/focus (known vs new information) in the sentence.

**Figure 28.** Siewierska's Topicality Hierarchy and subhierarchies.

- a. Person: 1 > 2 > 3
- b. Nominal: pronoun > common noun
- c. Animacy: human > animate > inanimate > abstract
- d. Referentiality: definite > indefinite specific > unspecific
- e. Focus: topic > focus

## 2.28. Baerman, Brown, & Corbett

These authors, in their study about syncretism (Baerman, Brown, & Corbett 2005: 44 ff.), referred to the Animacy Hierarchy operating in some Australian languages. They discussed the exclusivity of animacy as the instigator of the hierarchy, and included other names such as the 'Hierarchy of Inherent Referential Content' from Goddard (1982), or 'Topicality', from Timberlake (1975).<sup>33</sup> As an example, they provided Dench's (2001: 122) hierarchy, which explains the way split ergativity works in Pilbara languages from Western Australia, and concluded that it is formed by different subhierarchies, such as that of Literal Animacy, Person, Number, Definiteness, and Word Class.

**Figure 29.** Dench's hierarchy for Australian split ergativity.

- 1st person singular > 2nd person singular > 1st person inclusive dual > 1st person inclusive plural > 2nd person dual > 2nd person plural > *this* > *that* > indefinite > animate > meat, vegetable > other inanimate

## 2.29. De Swart, Lamers, & Lestrade

*Lingua* published a special issue about animacy in 2008. The first contribution was made by the invited editors de Swart, Lamers, & Lestrade (2008), and gives an overview of the notion of animacy and its applications.

They cited examples of animacy in gender systems, but also of case marking and agentivity, word order, tendencies, and probabilities of animate NPs to appear in some functions, psycholinguistic, and neurolinguistic consequences of animacy, the role of animacy in gender assignment, and the definition of thematic roles.

<sup>33</sup> Actually, neither of the terms was originally coined by these authors, as Goddard took it from Silverstein, and the concept of topicality is employed by more authors than Timberlake, even contemporaneously.

Moreover, even if they departed from a human > animate > inanimate hierarchy, they admitted that animacy in linguistics is not biological but gradient, and that empathy from the viewpoint of oneself seems to be important (de Swart, Lamers, & Lestrade 2008: 135).

Finally, they addressed the discussion about the nature of animacy, by stating that, for some authors, especially generativists, animacy is not primitive, and that animacy effects can be explained by other hierarchies (de Swart, Lamers, & Lestrade 2008: 135).

### 2.30. Kiparsky

Paul Kiparsky (2008) preferred to employ the term ‘D(efiniteness)-hierarchy’ since, as we have seen, besides pure animacy, other elements such as topicality or agentivity are also important in the definition of the hierarchy.

By means of the study of split ergativity, he concluded that the hierarchy is universal: it affects several languages, is inviolable, and also natural, since it also surfaces in language acquisition processes.

However, Kiparsky’s most interesting point is that, unlike other authors that try to give a cognitive explanation to animacy, often related to the way in which human beings categorize the surrounding entities depending on their inherent properties, he argued that the hierarchy, at least concerning split ergativity, has nothing to do with these inherent properties, but with the grammatical properties of the NPs that represent them.

I will illustrate this approach by means of an example. A 3rd person pronoun, irrespective of its referent, occupies a preferential place in the hierarchy, over proper nouns, kin terms, or other animate nouns. Thus, a pronoun such as *him* will be higher in the hierarchy than *Peter*, regardless of whether its referent is my father or a shoe. This would demonstrate, according to Kiparsky, that the hierarchy is based on morphosyntactic patterns, and not on semantic factors.

### 2.31. Kittilä, Västi, & Ylikoski

In the introduction to a monographic volume devoted to the relation between case and animacy, Kittilä, Västi, & Ylikoski (2011: 5-7) tried to clarify the definition of animacy. They made a distinction between a biological and a linguistic animacy. The former is related to the life of an entity as well as to its ability to feel and act, or instigate events volitionally. Humans lead this group. The linguistic animacy, however, is not inherent and may vary depending on the context or the way we use to address an entity.

As biological animacy cannot explain the person hierarchy, or referentiality among others, they consider the possibility of defining the hierarchy as an empathy hierarchy, following Yamamoto (cf. § 2.25).

### 2.32. Cristofaro

Cristofaro's (2013) interesting paper is a claim against the explanatory power of the extended Animacy Hierarchy such as that provided, for instance, by Corbett (cf. Figure 27). Cristofaro showed that different phenomena explained by means of this hierarchy — referred to as Referentiality Hierarchy in this paper—actually have a different diachronic origin in which hierarchy has no influence as a cause. The splits have their origin in the grammatical properties and restrictions of the source constructions, which remain even after the reinterpretation, and not in psychological properties like naturalness, likelihood of occurrence, individuation, or animacy, which are features captured by the hierarchy (Cristofaro 2013: 87).

Thus, she claimed that diachrony has to be considered for each specific datum, since in cases in which referentiality hierarchy seems to work as a suitable synchronic descriptive tool, diachronic data may provide quite a different scenario. In summary, even if synchronically two phenomena may look alike in two languages, diachronic data may show that referentiality may or may not be involved in both, or not in the same way: similar phenomena cannot be put together automatically (Cristofaro 2013: 87). In such a way, exceptions to the hierarchy need not be explained.

Cristofaro studied cases of split ergativity, hierarchical person alignment, and number marking. Concerning split ergativity, she explained that the pronoun vs. noun split takes place when the ergative marker comes from a pronoun or a demonstrative, which is, obviously, incompatible with a pronoun etymologically. When the split affects pronouns/animates vs. inanimates, she showed that the ergative might come from an instrumental case, which almost never appears with pronouns or animate nouns. When the marker is an accusative one, it may come from a topic marker, which is, therefore, more common with pronouns, humans, animates, and definites.

Hierarchical alignment puts 1st and 2nd person (speech act participants) upon the 3rd one, in two ways. By means of a direct/inverse marker, or by defining the agreement controller on the verb, whose target is a bound pronoun. In the first case, the inverse marker may be originally a cislocative meaning 'hither' or 'there', for instance, reinterpreted as a speech act participant pronoun such as 'me'. In the second case, the explanation comes



from the fact that bound pronouns come from free pronouns, and that often languages lack 3rd person forms; therefore, they cannot become bound forms to show agreement.

Overt plural marking affected by a pronoun vs. common noun split is caused by the fact that pronouns grammaticalize from nouns denoting humans such as ‘people’ or ‘servant’, which already have a lexical number, then inherited by the grammaticalized pronoun. This happens with the kin term vs. common noun split, as the latter tends to come from verbs with different singular and plural forms. Human/animate vs. everything else splits were explained by Cristofaro by arguing that plural markers can come from associatives, which are typical with pronouns and humans, or since they come from expressions meaning ‘people’ and hence, restricted to these. Another reason may be that in some languages the plural is employed to encode individuation against a generic reading and, animates being always individuate, must be always marked. Eventually, other languages grammaticalize the plural marker from a distributive and, as humans are always individuate, when they are plural, they always have a distributive reading.

Finally, Cristofaro showed that when the source of an ergative marker or a plural marker is, for instance, something other than those mentioned before, the restrictions imposed by these ergative or plural markers also disappear.

### **2.33. Conclusions drawn from the literature review**

After having made an overview of the notion of animacy and its hierarchy, some conclusions derived from the cited authors will be drawn in this section.

First of all, some general remarks can be made. On the one hand, it seems evident to me that, in general, recent researchers have not taken into account, or at least cited, the seminal works published before Silverstein’s and Dixon’s contributions, even if, in my opinion, they include very interesting intuitions, and already give clues and terminology that were ‘reinvented’ by more recent researchers. On the other hand, it should be noted that there is no agreement on the nature and scope of animacy, and even less, on the elements that make up the hierarchy, which are often dependent on the data or linguistic area under study.

In § 2.33.1 I have summarized the areas of grammar in which animacy has been applied to account for some linguistic phenomena. Then, in § 2.33.2 I have shown that animacy is more than the distinction between animates and inanimates, and that different types of subhierarchies may be included. Given that ‘animacy’ does not account for all the linguistic

effects derived from it, in § 2.33.3 I have summarized the discussions about the real nature of this hierarchy. Finally, some remarks about the universality of the hierarchy have been given (§ 2.33.4).

### 2.33.1. *Applications of the hierarchy*

Most works, from the beginning, employ the Animacy Hierarchy to explain phenomena related to agentivity, such as the identification of the subject, or cases of split ergativity, especially since Dixon's and Silverstein's studies, although Thompson had observed it several decades before. Related to these, case marking and thematic role assignment are also topics often addressed from the perspective of animacy, especially related to the above-mentioned notion of agentivity and the hierarchical arrangement of the speech act participants.

Apart from agentivity and case, the Animacy Hierarchy has been often mentioned in the area of analysis of discourse at least since Givón's works, above all, in the identification of the discursive topic against the focus, and also as an alternative explanation to the identification between animacy and agentivity. From the relation between discourse analysis and animacy or topicality, other works, such as those by Dahl, Fraurud, and Yamamoto have studied referentiality, and Allan addressed word order.

Cases related to number have been associated with animacy at least since de la Grasse-rie, Forchheimer, and especially Smith-Stark and Corbett, and with person since Siewierska. Other applications of animacy can be those of passivization, by Trithart, the distribution of the genitive in English, or the order in which reanalysis spread, by Timberlake.

But obviously, the notion of animacy has been identified with the definition of gender systems, its agreement conditions, and the classifier systems since the pioneer works in the 19th century, as typology and knowledge about languages far from Europe developed.

Finally, the works by Comrie, Croft, Corbett, Yamamoto, and de Swart, Lamers, & Lestrade among others, have been very important in showing that animacy effects are multifarious, by putting together examples of each of the abovementioned areas of grammar.

### 2.33.2. *The 'extended' animacy: a hierarchy of hierarchies*

Most of the authors are aware that animacy, that is to say, the distinction between animates and inanimates —or between humans and animates— from a biological point of view, is not enough to account for the data under study. Consequently, the authors expand this Animacy Hierarchy with further distinctions, or combine it with other hierarchies, ei-

ther by providing the links of all the hierarchies involved in a linear way (cf. Figure 29) or by providing each hierarchy independently (cf. Figure 28). Among the latter, there are authors that hierarchize the hierarchies among them, leading to a hierarchy of hierarchies, as in Figure 19.

The elements involved in this ‘extended’ hierarchy in Croft’s terminology, are not of the same nature (cf., for instance, Talmy (2000)). Thus, whereas biological animacy can be explained by means of inherent properties, Person Hierarchy (1 > 2 > 3), or that which places pronouns over common nouns has nothing to do with the inherent and natural properties, up to the point that the latter can change depending on the discourse (Comrie 1979b: 322-323). We can address an entity by means of a pronoun in a sentence and by means of a common noun in the next one. Equally, this same entity can be a second person, but also a third one. However, if it is a human, it cannot become a biologically inanimate entity circumstantially.<sup>34</sup>

Thus, and even if the hierarchies involved together with biological animacy are in some cases specific for the data studied by the authors, some of them appear regularly, though with different denominations. All these can be arranged under different labels, as I have done in Figure 30.

**Figure 30.** Hierarchies affecting extended animacy according to some authors.

- 1) Inherent hierarchies
  - a) Biological animacy: humans > animates > inanimates
  - b) Other inherent features (often related to humans, or exclusive for humans)
    - i) Countability: countable > uncountable
    - ii) Intelligence/sentience/conscience: intelligent > non-intelligent, sentient > non-sentient, conscious > unconscious
    - iii) Ability for self-movement: present > absent
    - iv) Ability for causation or activity: present > absent
    - v) State: solid > liquid, tangible > intangible, perceivable > abstract...
    - vi) Sex: male > female
    - vii) Age: older > younger
    - viii) Size: big > small
  - c) Culture/Beliefs/Mythology
    - i) Cultural personification: personified > non-personified
    - ii) Social status: king/chief > subject
    - iii) Deity: god > human

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<sup>34</sup> But it can happen in cases related to metaphors and beliefs, as I will address later.

- 2) Discursive hierarchies
  - a) Person/Speech act participants: 1 > 2 > 3
  - b) Type of nominal: pronouns > kin terms/proper nouns > common nouns
  - c) Referentiality/definiteness/specificity/individuation: referential > non-referential, definite > indefinite, specific > unspecific...
  - d) Topicality/prominence/type of information: topic > focus, prominent > non-prominent, known > unknown
  - e) Agentivity: agent > patient,<sup>35</sup> subject > object
  - f) Word order: topic > focus
  - g) Type of sentence: passive > active
  - h) Tense: past > present
- 3) Temporary hierarchies
  - a) Number: singular > plural
  - b) Treatment: respect/admiration > familiar
  - c) Pragmatic personification: personified > non-personified

First of all, I have created three main groups. The first one contains inherent hierarchies, the second includes discursive hierarchies, and temporary hierarchies form the third one. As I will explain later more extensively (§ 2.33.3), all these must be seen from the point of view of the speaker or the ‘ego’. Thus, the inherent features are those that, for the speaker, are constant in an entity, and cannot change. In this group we have biological animacy, which is the combination of two possible splits (human > animate or animate > inanimate),<sup>36</sup> but also other inherent features are included. These are often related to characteristics prototypically present in humans (Yamamoto 1999: 10) or, as in the case of the last three, namely age, sex, and size, which can categorize humans by their inherent properties. The last section among inherent features corresponds to that of culture/beliefs/mythology, and includes some features that may not be inherent to an entity, but are given by the speaker (and its community) due to his cultural, religious, and experience background, and become largely unchangeable (Creamer 1974: 40; Lakoff 1987). Those of social status and deity are easy to understand. I have called ‘cultural personification’ cases in which an entity is systematically promoted into the Animacy Hierarchy, by considering it human (or animate, if it is not so), or a deity, as in animist religions.

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<sup>35</sup> But cf. Siewierska’s arguments for the opposite path.

<sup>36</sup> Ortman calls the languages with a human/nonhuman split ‘hominists’, and those with an animate/inanimate one, ‘vitalists’ (Ortman 1998: 64 ff.).

The second big block includes discursive features. These are chosen by the speaker, but are highly influenced by the speech act and are not inherent features of entities, so they can change. The person employed to refer to an entity depends on its presence on the speech act, which can vary. The type of nominal can change depending on the knowledge the hearer has about that entity, or whether it has been already mentioned. Under the labels of referentiality/definiteness/specificity/individuation, I have included all these mechanisms to make the entity unique in the universe, and easy to identify regarding others (Yamamoto 1999: 3-4), which may depend again on the knowledge of the hearer about that entity, and the information already provided, as happens with the hierarchies under the labels of topicality/prominence/type of information. The last four hierarchies (agentivity, word order, type of sentence, and tense) are completely dependent on the way the speaker arranges the discourse, but in this case, the knowledge the hearer has about the entity is irrelevant.

Last but not least, the temporary features are those that are both discourse-dependent and inherent. Actually, they are inherent features that are adopted under some (discursive) circumstances, but not forever. Regarding number, an entity may be plural or singular depending on the context. Equally, the speaker may give a specific treatment to an entity and consider it animate under some circumstances, but also change this consideration in other contexts. Finally I have considered cases in which an entity is promoted in the Animacy Hierarchy by the speaker, but not permanently, as ‘pragmatic’ personification in opposition to the abovementioned ‘cultural’ one.<sup>37</sup>

I would like to close this section by commenting perfunctorily on Kiparsky’s (2008) and Cristofaro’s (2013) approaches to the Animacy Hierarchy. Against most of the authors cited in § 2, for them, the hierarchy has nothing to do with cognitive aspects, but with the grammatical properties of the NPs involved.

For Kiparsky (§ 2.30), the hierarchy is inviolable, since is not affected by cognitive bias. It must be noted, however, that in my opinion, Kiparsky does not consider enough examples, since he studies mostly cases of split ergativity, and especially those in which there are actually structural differences between NPs, such as definiteness or the type of nominal employed. I think that Kiparsky’s approach, even if it is interesting for some data, can

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<sup>37</sup> This ‘inferred’ animacy (Yamamoto 1999: 17), is common, for instance, with robots, or in cases of literary prosopopoeia, especially when objects have a human shape, as in the case of Lumière, the candle in *The Beast and the Beauty*.

hardly account for cases, for instance, related to gender, such as those in which an adjective has a form with an animate controller and a different form with an inanimate one, with the remaining morphosyntactic factors equal, as happens in some Chinantecan languages. Moreover, it should be noted that, as I have shown in § 1, this hierarchy transcends the scope of language, and thus, can hardly be dependent exclusively on grammatical categories.

Cristofaro (§ 2.32) claims that the grammaticalization and hence, the diachrony of every single phenomenon must be considered, since this may show that in a phenomenon explained synchronically by Animacy Hierarchy, this may have not be involved as a cause. This is problematic for this dissertation in which I depart from phenomena that have been explained by means of animacy and in which the amount of phenomena and languages studied do not allow for a specific diachronic study of each one. Let us discuss Cristofaro's approach more deeply.

The author shows that a lot of phenomena are actually related to the grammatical properties of the source construction from which the actual situation has evolved. I agree with her that the extended Animacy Hierarchy includes different subhierarchies whose relation is not clear, and that there are also counterexamples against the hierarchy. That is one of the reason why in this dissertation I have just considered the narrow Animacy Hierarchy (human > animate > inanimate), and not that of person (1 > 2 > 3) or that based on the type of nominal (cf. § 4.2). Therefore, I will focus just on the cases she provides to show that features such as human/animate and animate/inanimate are not explained by some splits, and I will leave aside those splits that involve the person hierarchy or the types of nominals (pronouns > kin terms > common nouns, and so on).

Cristofaro shows that, in cases in which ergativity is blocked for humans and pronouns, the source of the ergative marker may come from an instrumental, which cannot be added to an animate entity. When the marked entity is the patient, the accusative marker may come from a topic marker, which is more common with humans, as they tend to be topics. Plurals affecting only humans may come from associatives, which are typically for humans, or as they come from expressions meaning 'people', or by the spreading of the plural marking to encode individuation, which is typical in humans, or from a distributive marker, which is also employed mostly with humans, as the plural for them always has a distributive reading, since they are highly individuated.

However, in my opinion, all these explanations can be formulated in the opposite way. Why do these grammaticalization processes take place? Why do inanimate entities transform an instrumental into an ergative marker or create animates an accusative marker from a topic marker? Why do animates and humans develop plural markers? Animacy can be the explanation for the grammaticalization processes to be started. And obviously both the animate and inanimate entities will grammaticalize the structures they already have. Instead of stating that an animate entity is not marked with the ergative since the ergative comes from an instrumental that was restricted to inanimates, we could ask why an instrumental with such a restriction has been chosen to be grammaticalized as an ergative, instead of another element with no restrictions, as happens in other languages. And from that viewpoint, we come back to the explanation by which in such a language, only the inanimates need to be marked.

Moreover, Cristofaro's crucial affirmation is that structures keep some restrictions after being grammaticalized, which is the reason it does not spread throughout the system. This may be true at some stage of the evolution, but the reason why some old features remain and constrain the new function, whereas others change due to grammaticalization, has to be explained. There must be examples in which grammaticalization has overridden any previously existing constraint.

### *2.33.3. The nature of the hierarchy: the egocentric viewpoint and empathy*

As we have seen in the previous section, authors agree that biological animacy does not give a full explanation of the data and linguistic phenomena studied by each one, and in that further hierarchies must be overlapped.

Even accepting that 'animacy' is not an accurate term, linguists are still far from coming to an agreement about a better denomination and, therefore, a better definition of the nature of animacy. In general, they choose the elements forming the hierarchy and its name, depending on the linguistic area they are working on. These are some of the names that have been employed by the authors: Probability in the speech act, activity, topicality, agentivity, empathy, familiarity, interest, referentiality, entrenchment, accessibility, definiteness, relative power, and so on.

The term employed is not crucial for this dissertation, but the large variation in the subhierarchies involved, often too attached to the data studied, as well as the discussion about the universality of these hierarchies are problematic for this dissertation that, unlike in most of the previous studies, is not based on some specific data or linguistic areas from

which some generalizations about the hierarchy have been made, but which, conversely, is trying to determine a definition of animacy (hierarchy), to look for linguistic phenomena related to it all over the world. Thus, I will now deal with these features that seem to be common for all the authors above the differences, and I will talk about the pretended universality in the next section.

It is crucial to talk about a concept mentioned under different labels by many of the authors as, in my opinion, it links all the hierarchies in Figure 30. It is the concept of anthropocentrism, and, more specifically, egocentrism, or the notion of ‘ego’. It must be clarified that every speech act is made from the viewpoint of oneself and thus, the conceptualization of the entities in the universe of this speech act depends on the way oneself perceives this universe, which is, therefore, cognitively determined by the speaker. The prototypical speaker situates himself always at the top of all the hierarchies (Cooper & Ross 1975; Ross 1982; Dahl & Fraurud 1996), and categorizes the remaining entities in the speech act, depending on the information he obtains from his senses, his knowledge, and his cultural background (cf. Becker & Oka 1974: 229; Lakoff 1987). Thus, all the hierarchies in Figure 30 have in common that they are applied by a speaker, which, from his point of view, has most of the features higher in each of the hierarchies. To be sure, the most perceivable entity for oneself is oneself.

Then, the notion of empathy arises (Kuno & Kaburaki 1975). After determining that oneself is the center of the speech act, the remaining entities will be closer or farther from the ‘ego’, depending on the features they share with it. The more features they share, the more empathy this speaker will have with such an entity. The empathy is the ability of extrapolating the capacity of sentience and consciousness that oneself has, to other entities similar to oneself: thinking that entities like oneself must feel what oneself feels (Yamamoto 1999: 10).<sup>38</sup> Obviously, the ‘ego’ has more empathy and interest toward humans like himself, and then toward entities with which he shares the greater number of inherent properties, but has the ability to promote or demote humans and other entities, due to beliefs or cultural factors, or by using certain discursive or temporary resources; therefore, empathy depends on the extent the speaker *considers* an entity similar to himself.

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<sup>38</sup> Several factors can operate so that the ‘ego’ considers an entity like himself: edibility and empathy, for instance, are inversely proportional, On the contrary, sharing physical features, like having eyes, favors empathy.



In summary, all the properties, inherent or not, an entity may have, are given transitorily or permanently by the speaker, which is the center of the speech act.

#### *2.33.4. The universality of animacy*

Some authors such as Jespersen, Whaley, Dahl & Fraurud and others have claimed that the Animacy Hierarchy is universal. This seems to be true, if we consider that the hierarchy is necessarily based, from a cognitive point of view, on the way the human speaker conceptualizes the word, and that all human beings, the potential speakers, share similar physical properties. Moreover, from an empirical viewpoint, it has been shown that phenomena related to animacy can be found worldwide, and in different areas of grammar (Whaley 1997: 178-179).

However, there are some problems that go against this claim of universality. It can be stated that especially cultural factors, mythology, and beliefs may condition the cognitive ability of the 'ego' in a way that is not equal for all the human beings (Smith-Stark 1974: 665). Moreover, it has been shown that the realization of the hierarchy and the elements making it up are far from being homogeneous —and thus, universal— among linguists (Comrie 1989 [1981]: 266). Furthermore, there are counterexamples that go against the hierarchy. These, according to Whaley, do not ruin the hierarchy unless they are widespread, and for Allan (1987), these counterexamples can be explained by hierarchies operating at a higher level than that of animacy in each specific language.

Consequently, it seems that the egocentric viewpoint of language is a universal, as well as its realization by means of a hierarchy or set of hierarchies. These are not universal, and depend on different factors but, as all of them depart from the viewpoint of this 'ego', the way in which this 'ego' conceptualizes the word, not being an absolute universal, has some recursive and easily crosslinguistically recognizable patterns common to all human beings.

### 3. FURTHER THEORETICAL REMARKS ON THE BEHAVIOR OF ANIMACY (HIERARCHY)

In this section I will provide some additional data that have not been (deeply) treated by the abovementioned authors but that are, in my opinion, significant for the theoretical

conceptualization of animacy.<sup>39</sup> In § 3.1 I will show which are the basic formal splits we can find in a languages, triggered by animacy. Then, I will discuss whether animacy must appear always as a hierarchy (§ 3.2). In the next section (§ 3.3) I will show that some realizations of animacy as a hierarchy are not part of the grammar of a language, but theoretical conclusions of linguistics. Section § 3.4 is crucial, as it shows that two types of animacy, as a condition and as a semantic feature, have to be separated, because they operate in a different—although related—way in language. Section § 3.5 is important from the point of view of Animacy Hierarchy and animacy-based splits as a part of the grammar of a language, since it deals with the possibility of animacy behaving in different ways within the same language. Finally, some counterexamples to the Animacy Hierarchy have been provided (§ 3.6).

### 3.1. Number of formal splits

Animacy is often represented as a tripartite distinction, namely human/animate/inanimate.<sup>40</sup> However, looking at formal linguistic data, this distinction is seldom instantiated in a tripartite way. In most of the cases it is bipartite, namely human/nonhuman, or animate/inanimate. In this section I will show that most of the splits that can be instantiated formally are bipartite (§ 3.1.1). Then I will show the scarce data in which the tripartite split is formally instantiated (§ 3.1.2). Finally, I will provide examples in which the tripartite split cannot be inferred but by the combination of two bipartite animacy splits (§ 3.1.3)

#### 3.1.1. *Bipartite*

The cases in which we have formally just a human/nonhuman or animate/inanimate bipartite split are the most common.

Consider, for instance, the case of Persian pronouns, in Table 2 (Ortmann 1998: 77). There is a form for humans and another form for nonhumans. Therefore, the only animacy split we can formally trace is that of human/nonhuman. Examples like this do not allow tracing either a human > animate > inanimate hierarchy, or a human > nonhuman one, since there is no formal reason either to trace a tripartite split, or to determine the reason why humans should be put above nonhumans. To be sure, in such a case, the only state-

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<sup>39</sup> Some of them have now been addressed in a special issue of *Theoretical Linguistics* 42(1-2). Cf. de Swart & de Hoop (2018).

<sup>40</sup> There must be additional subdivisions inside these main slots, like dividing animates into higher and lower, or humans according to sex, but these have been omitted here.

ment that can be made is that of the existence of a human/nonhuman split, without any hierarchy between them. At most, we could accept that the hierarchy exists from a cognitive viewpoint (cf. § 3.2), if they are uncertain cases in which it is not clear whether an animate entity must be marked like humans or like inanimates, but this does not leave any formal trait.

**Table 2.** 3rd person personal pronoun in Persian.

	Human	Nonhuman
Sg	<i>u</i>	<i>an</i>
Pl	<i>ifan</i>	<i>anba</i>

### 3.1.2. *Tripartite*

Examples of tripartite splits formally instantiated are not as common as bipartite ones, but there are some.

Note in the examples of Swedish (Ortmann 1998: 77) and Sinhala (Gair 2003: 783) pronouns that there are alternative forms for humans, animates, and inanimates (although there may be further distinctions, such as number or sex).

**Table 3.** Bound pronouns in Swedish.

Human		Nonhuman	
Masculine	Feminine	Animate	Inanimate
<i>han</i>	<i>hon</i>	<i>den</i>	<i>det</i>

**Table 4.** 3rd person personal pronouns in Sinhala.

	Animate						Inanimate	
	Human			Nonhuman			Sg	Pl
	Sg		Pl	Sg		Pl		
	Defl	Fem		Defl	Fem			
1 Prox	<i>meyaa</i>	<i>mææ</i>	<i>meyaaala</i>	<i>meeka/muu</i>	<i>meekei</i>	<i>meekeuŋ/muŋ</i>	<i>meekeə</i>	<i>meewa</i>
2 Prox	<i>oyaa</i>	-	<i>oyaaala</i>	<i>ooka</i>	<i>ooki</i>	<i>ookuŋ</i>	<i>ookə</i>	<i>oowa</i>
Distal	<i>areya</i>	-	<i>areyala</i>	<i>arəka/aruu</i>	<i>arəki</i>	<i>arəkeuŋ/aruuŋ</i>	<i>arəkeə</i>	<i>arəwa</i>
Anaph	<i>eyaa</i>	<i>ææ</i>	<i>eyaaala</i>	<i>eeka/uu</i>	<i>eeki</i>	<i>eekuŋ/uuŋ</i>	<i>eekə</i>	<i>eewa</i>

### 3.1.3. *Nonautonomous tripartite*

There are some tripartite splits that are special, as they cannot be traced by anything except a paradigmatic viewpoint. The human/animate/inanimate distinction is only identifiable by combining a human/nonhuman split affecting a paradigm, with an animate/inanimate one from another paradigm within the same language, usually being animates the entities that share features both with humans and inanimates, like an intermediate level in the hierarchy (cf. de Swart & de Hoop 2018: 6). Thus, these cases of nonautonomous tripartite splits show just two formal splits and the intermediate stage, that of animates, is nothing but a combination of these, without any exclusive formal feature.

If we look at the negativizer adverb in the Papuan Language Sentani in Table 5 (Hartzler 1994: 60-63), we can see that the only way to have a human/animate/inanimate tripartite split is by combining existent and nonexistent forms, which, independently, have just a human/nonhuman and an animate/inanimate bipartite split respectively.

**Table 5.** Negativizer adverb in Sentani.

	Existent	Nonexistent
Human	<i>olo</i>	<i>ban</i>
Animate	<i>an</i>	<i>ban</i>
Inanimate	<i>an</i>	<i>u</i>

In K'iche' (Croft 1990: 112), overt plural marking in the NP shows a human/nonhuman split, but number agreement in the verb follows an animate/inanimate pattern. Consequently, human entities have both marking and agreement, inanimates lack both, and animates lack marking but show agreement. Thus, the split can only be traced by combining both data from number marking and agreement.

Kalam (Pawley 2006: 87) is another example of a special tripartite system. Figure 32 includes the rules for number marking in this language. From a formal point of view, number (singular, dual, or plural) is always marked. However, human entities are always marked with their corresponding semantic number, and inanimates, in the default singular one. That would lead us to a human/inanimate split. However, there is an intermediate option for animates, which can be defined only since they behave like humans in some cases, and like inanimates in other cases: animates do not have exclusive formal differences.

**Figure 31.** Rules for semantic number marking in Kalam.

	Animates		
Humans	Higher	Lower	Inanimates
compulsory	common	seldom	forbidden

### 3.2. Hierarchical organization

That the animacy splits were not so clear and that a gradation could be made was already seen by Thomson (1909), and has been repeated to death by many linguists. However, even if the basic realization of animacy is that of human > animate, animate > inanimate, or human > animate > inanimate, I will show that this is not always instantiated in that way inside a language. In my opinion, and following Mallinson & Blake (1981: § 2.5.3), in most of the cases such a hierarchy is not visible in the grammar of a language, and can only be traceable as a linguistic abstraction, since animacy pops up in languages in a discrete binary (human/nonhuman or animate/inanimate) way (see now de Swart & de Hoop 2018: 4-7).

If we come back, for instance, to the examples of Persian in § 3.1.1 or Swedish in § 3.1.2, in which each slot in the paradigm has its own form, we can easily conclude that there is no reason to put humans above animates, or these above inanimates.

Even in cases such as that of K'iche', mentioned in § 3.1.3, in which humans have both number marking and agreement, animates just have agreement and inanimates lack both,

the speaker does not need the notion of hierarchy to employ either number marking or agreement. The speaker must just know whether the controller is human, animate, or inanimate, but once again, there is no reason to consider that one is above the other. Considering that there is a gradation such as human > animate > inanimate is a conclusion that can only be reached by a metalinguistic analysis, by studying phenomena like that inter- and intralinguistically, so that we can make a statistical statement in terms of markedness such as “animate entities mark number more than inanimates.” But this is far from being a part of the grammar the speaker needs to control.

Likewise in cases of optionality, that is to say, in cases in which the speaker has two options, such as that of Kalam in Figure 31, the speaker does not need the notion of hierarchy to apply the rules for number marking. Humans always do it, inanimates never mark number, and animates show optionality. Considering humans to be over animates and those over inanimates is the consequence of a crosslinguistic comparison.

In my opinion, the only case in which the notion of hierarchy is necessary in the grammar of a language, that is to say, the only situation in which the speaker must know whether an entity is more animate than another, is that in which the relative animacy of two NPs plays a role. That is the case in Lango, for instance. In ditransitive sentences, the verbal agreement is controlled by the indirect object, unless the direct object is at least as animate as the indirect object, as shown in (5) (Kittilä 2008: 262-263). This implies that the speaker must know what the relatively most animate entity is, and therefore, apply an animate > inanimate hierarchy.

Lango. Nilo-Saharan.

- (5) a. *lócə òmÿá búk*  
 man 3.SG.give.PFV.1.SG book  
 ‘The man gave me the book.’
- b. *lócə òmÿe bətə*  
 man 3.SG.give.PFV.3.SG to.1.SG  
 ‘The man gave him to me.’

Consequently, the only animacy hierarchies operating in the grammar of a language are bipartite: human > nonhuman, or animate > inanimate. There cannot be a human > animate > inanimate hierarchy, since the hierarchy operates for the relative animacy of just

two entities. A tripartite hierarchy can only be traced as a linguistic abstraction based on a collection of data.<sup>41</sup>

### 3.3. Interlinguistic/intralinguistic animacy

I have already contended, on the one hand, that the number of formal splits a language may show is almost always bipartite (§ 3.1.1), only seldom tripartite (§ 3.1.2), and that some tripartite splits are nonautonomous, and inferred by linguists (§ 3.1.3). Moreover, we have seen that establishing a hierarchy that operates in the grammar of a language is reduced just to a type of phenomena and that often the hierarchies are the result of abstractions made by linguistics (§ 3.2).

I would like to go deeper into the notion of this Animacy Hierarchy as an abstraction of linguistics, by providing an example in which a tripartite hierarchical split can only be traced as a comparison of crosslinguistic data. This is important from a cognitive point of view, since it implies that the speaker of each language does not have such a tripartite hierarchy in his grammar.

In the following examples, both the human/animate/inanimate tripartite split and its hierarchical arrangement as human > animate > inanimate are the result of the comparison of different languages, but cannot be seen in each language separately. Consider these three examples of case marking in Australian languages in Figure 32 (adapted from Kiparsky (2008: 34)). In Dhargari, animate nouns (including humans) follow a nominative-accusative case marking, and inanimates, an ergative-absolutive one. In Arabana there is a human/nonhuman split and in Kunbainggar no split is attested.

**Figure 32.** Patterns of split ergativity in some Australian languages.

	Human	Animate	Inanimate
Dhargari	NOM-ACC		ERG-ABS
Arabana	NOM-ACC	ERG-ABS	
Kunbainggar	ERG-ABS		

<sup>41</sup> At this point, I should admit that in this dissertation I will often employ the term ‘Animacy Hierarchy’ as a convention based on the linguistic tradition, even if the specific data do not support the hierarchical arrangement.

Animacy does not operate in Kunbainggar, but seems to be important for case marking both in Dhargari and Arabana, as they have an animate/inanimate and a human/nonhuman split respectively. However, none of these languages shows formal evidence of a human/animate/inanimate split on their own. The tripartite split is neither formally distinguishable, nor part of the grammar of any of the languages. The same holds for the hierarchical arrangement. A speaker of Dhargari, for instance, knows that animate entities follow a nominative-accusative pattern, and inanimates an ergative-absolutive one, but has no reason to infer from these data, that animates are above inanimates, hierarchically. This can be concluded from comparing different languages (or with diachronic evidence), by seeing that the ergative spreads following a hierarchical pattern.

Thus, in these cases, neither the tripartite split or the hierarchical arrangement of animacy are part of the grammars of these languages individually. They are theoretical conclusions achieved by linguists, after studying several languages, and arranging them in a particular order (cf. de Swart & de Hoop 2018: 6).

### 3.4. The double nature of animacy: condition and semantic feature

This is a central point in this dissertation. In this section I will contend that animacy has two different natures or, to put it another way, can operate as a condition (AnimC) or as a semantic feature (AnimF), even within the same languages (Corbett 1991: § 2; Corbett 2006: 116 ff.).<sup>42</sup>

#### 3.4.1. *Examples of some of the affected features*

Almost all features (cf. § V) can be affected by animacy, but not in the same way. Consider the following triads of examples related, respectively, to person, number, case, and gender.

##### 3.4.1.1. Person

Person is affected in Bunak (Holton & Robinson 2014: 162), as it comes from not being marked to being overtly marked in the verb, in Yagaria (Siewierska 2004: 154-155) since the direct objects do not allow semantic third person marking and must agree in the 1st

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<sup>42</sup> That animacy is more than a semantic split has been shown by Ritter (2014) for Blackfoot, from a different framework.



person if they are not human, and in Southern Dagaare (Siewierska 2004: 109), since the third person suffers an animacy split.

Bunak. Trans-New Guinean.

- (6) a. Markus zo poi  
 Marcus mango choose  
 ‘Marcus chose a mango.’
- b. Markus zap go-poi  
 Marcus dog 3-choose  
 ‘Marcus chose a dog.’

Yagaria. Trans-New Guinean.

- (7) a. vedemo p-go-e  
 men 2/3.PL-see-1.SG  
 ‘I saw the men.’
- b. mna-vrza-mo ko-e/\*p-go-e  
 bird-COLL-PL see-1.SG/\*2/3.PL-see-1.SG  
 ‘I saw the birds.’

**Table 6.** Free personal pronouns in Southern Dagaare.

	Sg	Pl
1	<i>maa</i>	<i>tenee</i>
2	<i>foo</i>	<i>yenee</i>
3 Human	<i>ono</i>	<i>bana</i>
3 Nonhuman		<i>ana</i>

#### 3.4.1.2. Number

Now, let us pay attention to the following triad of phenomena related to number. Number can only be overtly marked in animate entities in Tepehua from Tlachichilco (Watters 1988: 460-461). In Afar, the more inanimate a plural entity is, the more it would agree in the singular (feminine) (Corbett 2000: 203-5). In Breton the plural number markers have different forms depending on the element to which they are attached (Ortmann 1998: 76).

Tepehua, Tlachichilco. Totonacan.

- (8) a. capul  
 snake  
 ‘snake(s)’
- a’. capul-in  
 snake-PL  
 ‘snakes’
- b. ma:ti:  
 door  
 ‘door(s)’
- b’. \*ma:ti:-n  
 door-PL  
 ‘doors’

Afar. Afro-Asiatic.

- (9) woò baacoytaa-kee kày toobokoyta temeete/yemeeten  
 that poor.man-and his brother came.FEM.SG/came.PL  
 ‘That poor man and his brother came.’

Breton. Indo-European.

- (10) a. bag-où  
 boat-PL  
 ‘boats’
- b. paotr-ed  
 boy-PL  
 ‘boys’

### 3.4.1.3. Case

In the relation between animacy and case, in Badaga the accusative case marker is always overtly attached to the NP if it is inanimate; otherwise, it is optional and little used (Kittilä 2008: 145-146). The example of Russian shows that animate entities show a syncretism pattern in case marking, and inanimates, elsewhere (Comrie 1979a: 14). Finally, in

Basque, local cases take a morpheme *-ga(n)-* when attached to an animate entity (Santazilia 2013: 227).<sup>43</sup>

Badaga. Dravidian.

- (11) a. ama ondu manusa-na nooDida  
 he a man-ACC see.PST.3.SG  
 ‘He saw a man.’
- b. ama ondu kaTTe baNDi(-ya) nooDida  
 he a wood vehicle(-ACC) see.PST.3.SG  
 ‘He saw a waggon.’

Russian. Indo-European.

- (12) a. begemot ljubit nosorog-a  
 hippopotamus loves rhinoceros-ACC/GEN  
 ‘The hippopotamus loves the rhinoceros.’
- b. begemot ljubit il-Ø  
 hippopotamus loves slime-NOM/ACC  
 ‘The hippopotamus loves (the) slime.’

Basque. Language isolate.

- (13) a. Iran-dik  
 Iran-ABL  
 ‘from Iran’
- b. lagun-a(-ren)-gan-dik  
 friend-ART-GEN-ANIM-ABL  
 ‘from a/the friend’

#### 3.4.1.4. Gender

The latter triad of examples affects gender. In the case of Bhojpuri, gender (masculine/feminine) can appear overtly by derivation, only in animate entities (Verma 2003: 525). The example of Bemba shows that when entities belonging to different genders must agree in a verb, animacy can decide which gender value must be used: in this case, 2 for animates

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<sup>43</sup> And optionally, also the genitive marker.

and 8 for inanimates (Corbett 1991: 275). In Pirahã, 3rd person singular pronouns distinguish different genders for humans, animates, and inanimates, with further distinctions based on sex and the quality of being aquatic animals (Aikhenvald & Dixon 1999: 355).

Bhojpuri. Indo-European.

- (14) a. *dādā*  
 grandparent.MASC  
 ‘grandfather’
- b. *dādi*  
 grandparent.FEM  
 ‘grandmother’

Bemba. Niger-Congo

- (15) a. *im-fumu na i-shilu ba-aliile*  
 9-chief and 5-lunatic 2-left  
 ‘The chief and the lunatic left.’
- b. *ici-tabo, ubu-sanshi na ulu-balala fi-li kuno*  
 7-book 14-bed and 11-peanut 8-be here  
 ‘The book, the bed, and the peanut are here.’

**Table 7.** 3rd person singular pronouns in Pirahã.

Human		Animate		Inanimate
General	Feminine	Nonaquatic	Aquatic	
<i>hi³</i>	<i>ʔi³</i>	<i>ʔi³k</i>	<i>si³</i>	<i>ʔa³</i>

### 3.4.2. *Condition vs. semantic feature*

Now I will argue that each abovementioned example in the triad of the features of person, number, gender, and case cannot be put together in the same way, due to the following reasons:

1. In all the first examples of each triad, the feature goes from not being marked to being overtly marked, due to animacy (the value it takes is not important).
2. In all the second examples of each triad, the feature was already present, but animacy changes the value this feature formerly had.

3. In all the third examples of each triad, neither the feature nor the value it has is affected. Simply, an animate/inanimate distinction is added.

Thus, in cases 1 and 2, animacy conditions respectively the overt marking of a feature, or the value this category must have, that is to say, animacy is a *condition* (AnimC). In case number 3, the feature and its value are in no way affected by animacy. Simply, a grammatical category—whether a pronoun, a pluralizer, a case-marker, or a gender marker respectively—makes a semantic distinction based on animacy, by changing its shape or by adding further morphological material. Therefore, in that case animacy is just a *semantic feature* (AnimF), affecting semantically a grammatical category employed to encode a person, number, case, or gender value.

Thus, from a theoretical point of view, animacy may operate as a *condition* or as a *semantic feature*. See Figure 33.

The first example of each example triad is determined by animacy as a condition (AnimC). In these, animacy controls the overt marking of the feature. Remember that in Bunak the feature of person is only overtly expressed with animate entities, as well as the feature of number in Tepehua Tlachichilco, case in Badaga, or gender (masculine/feminine) in Bhojpuri. All these examples would be located in the slot called ‘Overt marking’, within each feature in Figure 33.

AnimC determines the second example of each triad as well, which conditions which value each feature will have. The first person is imposed in Yagaria, while it is the singular number in Afar, the syncretism pattern of case markers in Russian, and gender value 2 for animates and 8 for inanimates in Bemba. Remember that in this case, AnimC does not condition the overt realization of the feature, but just its value. All these examples would be in their respective ‘value definition’ slot of Figure 33.<sup>44</sup>

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<sup>44</sup> There are actually more ways in which animacy operates as a condition, which should be added at the same level as overt marking and value definition, but as I have not been able to find examples for each category, although they may exist, I have not included them in the figure. One can be called ‘Controller definition’, and happens when animacy determines what the agreement controller of a given feature must be (cf. an example affecting person and number in § V.3.3). Another can be labeled ‘Morphological structure’ and includes cases in which animacy determines incorporation, or the relative order of morphemes in the clause (cf. examples in § IV.6.3). In these, the way the features appear is affected by animacy, but not their overt marking or their values.

Finally, in all the third examples of each triad, animacy operates as a semantic feature (AnimF in Figure 33), since neither the overt realization of a feature (person, number, and so on) nor the value it must take is directly affected by animacy. In Southern Dagaare the third person value in the pronoun is overtly expressed irrespective of animacy, as well as plurality in the pluralizer of Breton, and the locative value in the case marker in Basque. In the case of the gender-marker in Usila Chinantec, gender is always instantiated (therefore, AnimC does not condition its overt appearance). Moreover, it should be noted that the value this gender must take is not conditioned by animacy directly: animacy as a semantic feature (AnimF) plays a previous role in the configuration of the gender system and its values in this language, in the case of Pirahã, together with other features like sex, or the property of being an aquatic animal.<sup>45</sup> The point is that all these categories, whose function is that of encoding the values of each feature, also have the animacy-based semantic distinction, by changing the shape of the morpheme, or by adding further material as in Basque.

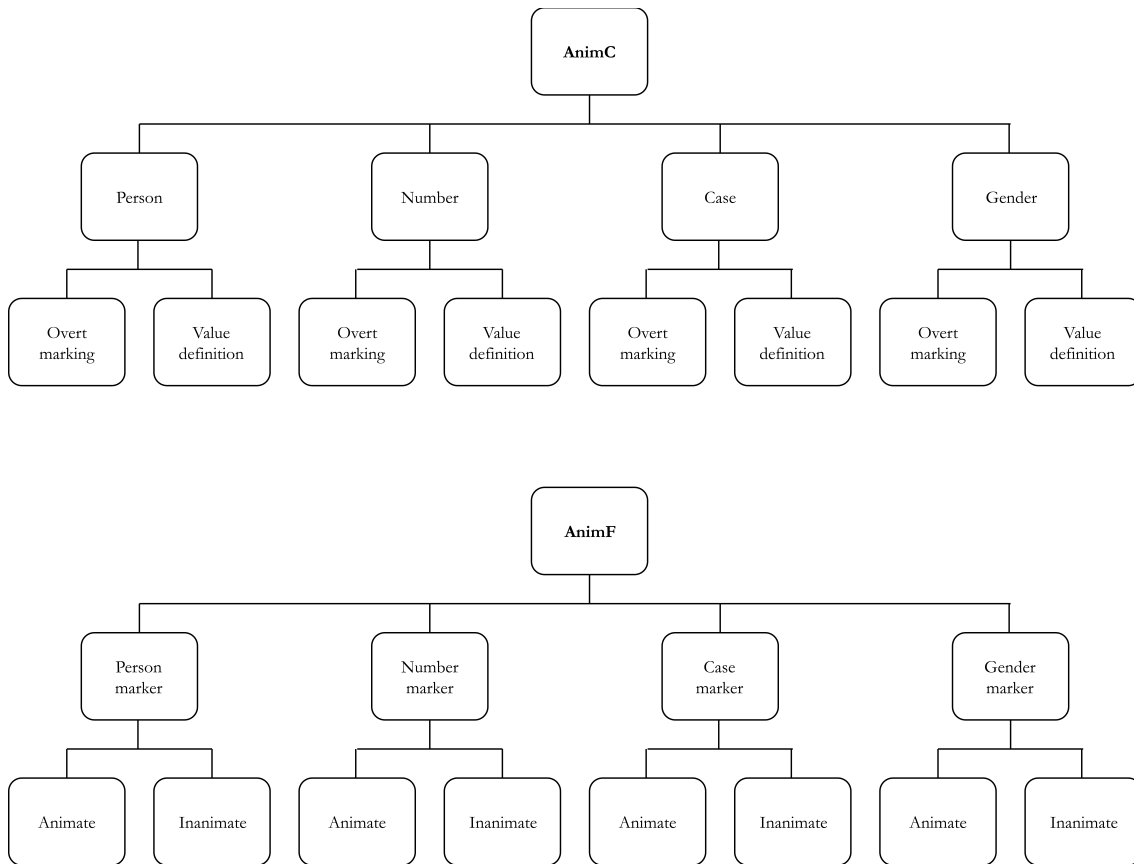
### 3.5. Same language, different animacy

Provided the notion of animacy is somehow universal and even part of the grammar of a language, a question that can be addressed is whether animacy may manifest itself in a different way within the same language or not. This is important to explain whether the manifestation of animacy as a semantic feature or as a condition (cf. § 3.4), or a specific cut-off point in the hierarchy (that between humans and nonhuman or animates and inanimates), for instance, affects the grammar of the whole language or whether it is rather specific to each phenomenon, which would allow different manifestations of animacy within the same language. As I will show, the latter is the correct option.

In § 3.5.1 I will provide examples in which animacy operates either as a feature or as a condition inside the same language, and in § 3.5.2, we will see that the same languages may establish the cut-off point between humans/nonhumans and/or animates/inanimates, following different criteria, depending on the linguistic area.

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<sup>45</sup> This is an important point to show that AnimF operates as a first step in the configuration of gender systems (together with other features and factors or not), and not directly as a condition (AnimC) determining the values (that might be those of animate/inanimate or not), since, as I will show (§ V.1.2), AnimC can in some cases override the configuration of gender systems whatever they may be (even affected by AnimF) and impose its own gender agreement.

**Figure 33.** Two types of animacy: as a condition (AnimC) and as a semantic feature (AnimF).

### 3.5.1. Animacy as a feature and as a condition

The following examples show how a language may show phenomena in which animacy operates as a feature and as a condition.

Let us consider two cases in Basque. On the one hand, locative cases distinguish animacy by means of a morpheme, as shown in (16) (data from my own knowledge). Thus, animacy operates as a semantic feature (animate/inanimate) in this case. Examples in (17), adapted from Igartua & Santazilia (2018b), show a different phenomenon, in which animacy operates as a condition. In Basque transitive sentences, the subject is marked with the ergative case, and the direct object, in the absolutive case. Both arguments agree in the verb in person, number, and case, as can be seen in (17a). However, if the direct object is animate, it can be (dialectally) marked with the dative and show dative agreement, which provokes the verb to have ditransitive morphology, even if there is no absolutive argument, as shown in (17b). Therefore, animacy operates as a condition for case agreement, determining whether the direct object must be in the absolutive case, or can be either absolutive or dative.

Basque. Language isolate

(16) a. *sukalde-a-n*

kitchen-DET.SG-INES

‘In the kitchen’

b. *lagun-a-ga-n*

friend-DET.SG-ANIM-INES

‘In the friend’

(17) a. *nik zu ikusi z-a-it-u-t*

I.ERG you.ABS seen 2.ABS-vowel-PL-root-1.SG.ERG

‘I have seen you.’

b. *nik zuri ikusi d-i-zu-t*

I.ERG you.DAT seen PRES-root -2.DAT-1.SG.ERG

‘I have seen you.’

Moreover, surprisingly, there are cases in which animacy both as a condition and as a feature may coexist not in the same language, but just in the same phenomenon.

In the Gudandji dialect of Wambaya (Smith-Stark 1974: 659-660), number is only marked with animate entities, as can be seen in Table 8. Therefore, animacy operates as a condition for the feature of number. However, once number is marked, the number marker makes a human/nonhuman distinction. Therefore, we can see how animacy operates first as a condition for number marking, and then as a feature among animates.

**Table 8.** Plural markers in the Gudandji dialect of Wambaya.

Animate		Inanimate
Human	Nonhuman	
<i>-man</i>	<i>-ma</i>	$\emptyset$

Another example is provided by bound pronouns in Abui. As summarized in the 3rd person singular bound pronouns table below (cf. Table 9), only verbs that can have either animate or inanimate objects are overtly marked with an agreeing prefixed pronoun. Furthermore, among these bound pronouns, three alternative forms are available, depending on affectedness and animacy again (Klamer & Kratochvíl 2006: 63-4). Thus, animacy operates as a condition for overt agreement of the bound pronoun. Once the pronoun is pre-



sent, the pronoun agrees in affectedness, but also in animacy as a feature (*ho-* vs. *ha-*). We can establish an ordering of operating rules such as the following: AnimC > Affectedness > AnimF.

**Table 9.** Singular bound pronouns in Abui.

Inanimate objects only	Animate and inanimate objects		
	Affected	Unaffected	
		Animate	Inanimate
$\emptyset$	<i>ha-</i>	<i>ho-</i>	<i>he-</i>

### 3.5.2. *Different animacy splits*

Another question that can be addressed is whether a language can show different splits in the hierarchy, namely human/nonhuman in some cases, and animate/inanimate in others, and also whether an entity can be considered, for instance, animate in some linguistic phenomena, and inanimate in others.

I have shown an example of Wambaya in the previous section (§ 3.5.1), in which animacy as a condition followed an animate/inanimate pattern, and animacy as a feature, a human/nonhuman one. Equally, the negativizers in Sentani, provided in Table 5 in section § 3.1.3, have a human/nonhuman split in the paradigm for existent forms, and an animate/inanimate one for the nonexistent ones (Hartzler 1994: 60-63).

By means of the example of Akan, I will illustrate two facts: First, that the split may be either animate/inanimate or human/nonhuman, depending on the part of the grammar, and second, that the animacy-based gender assignment to an entity may also change depending on the linguistic phenomenon.

In this language, classifiers in class 4 are restricted to inanimate entities, and class 1, which is typically animate, includes some inanimate nouns such as rock, country, house, hatred, death, poverty, and ghost (Osam 1993/1996: 154). Therefore, in the classifiers we have an animate/inanimate system, but with some deviations that consider some biologically inanimate entities in the same group of animates. However, these classifiers in class 1 and 4 are the etymological source of the 3rd person singular subject bound pronouns, and these distinguish animate and inanimate controllers respectively, in a clearly defined way, without any deviation. Therefore, the abovementioned nouns (rock, country, house, hatred,

death, poverty, and ghost) are considered inanimate when they are controllers of the 3rd person singular subject bound pronouns. Besides, numerals follow a pure human/nonhuman gender distinction (Osam 1993/1996: 156-157). In summary, in the classifiers we have an animate/inanimate distinction that is not clearly defined, the animate/inanimate split is clear in bound pronouns, which come from these classifiers, and numerals follow a human/nonhuman pattern.

### 3.6. The inviolability of the Animacy Hierarchy: counterexamples

To conclude this subchapter about the behavior of animacy, I will provide just a couple of examples that show that systems in which animacy is important may not follow the hierarchy, which reinforces the idea of the absence of a gradation in the grammar of these languages, at least in relation to the specific phenomenon under study.

In the Maipurean language Guarequena two plural markers are available: *-ne* and *-pe*. The first one is used with nouns denoting animate nonhumans and a few others, and *-pe* with humans and the remaining inanimates (and pigs) (Corbett 2000: 37). As a consequence, the hierarchy for the use of one or other form is that of humans and inanimates vs. animates.

The paradigm of declarative evidentials in Tuyuca, adapted from Barnes (1994: 326), shows the forms for the third person animate, which agrees in sex and number. Under the label ‘others’ are included 1st and 2nd person evidentiality markers, but also 3rd person inanimates. That means that number and person agreement breaks the Animacy Hierarchy, as it is lacking for 1st and 2nd persons, which are animate, as well as for inanimates, but present for 3rd person animates.

**Table 10.** Declarative evidentials in Tuyuca.

		Visual	Non-visual	Apparent	Second-hand	Assumed
Past	other	<i>-ni</i>	<i>-ti</i>	<i>-yu</i>	<i>-yiro</i>	<i>-h̃iyu</i>
	3.MASC.SG	<i>-wi</i>	<i>-ti</i>	<i>-yi</i>	<i>-yig̃i</i>	<i>-h̃iyi</i>
	3.FEM.SG	<i>-no</i>	<i>-to</i>	<i>-yo</i>	<i>-yigo</i>	<i>-h̃yo</i>
	3.PL	<i>-wa</i>	<i>-ta</i>	<i>-ya</i>	<i>-yira</i>	<i>-h̃ya</i>
Present	other	<i>-a/-ã</i>	<i>-ga</i>	-	-	<i>-ku</i>
	3.MASC.SG	<i>-i/-ĩ</i>	<i>-gi</i>	<i>-h̃ĩ</i>	-	<i>-ki</i>
	3.FEM.SG	<i>-yo</i>	<i>-go</i>	<i>-h̃õ</i>	-	<i>-ko</i>
	3.PL	<i>-ya</i>	<i>-ga</i>	<i>-h̃rã</i>	-	<i>-kua</i>

#### 4. THE DEFINITION OF ‘ANIMACY IN INFLECTIONAL MORPHOLOGY’ IN THIS DISSERTATION

##### 4.1. Theoretical basis for the definition of the concept

Stassen (2011: 90) states that the goal of a typologist is to collect the crosslinguistic formal variation, according to a given parameter. In other words, the typologist wants to investigate the ways in which a linguistic parameter manifests itself in different languages. In order to achieve this objective, first, an accurate definition of this parameter must be provided, so that language comparison can be properly made.

Languages can differ vastly in the ways they structurally encode a given domain, and this calls for a principled way to identify in each language the structural data which are relevant to the project at hand [...]. The solution to this problem presupposes a language-independent definition of the domain of the enquiry, that is, a demarcation of the relevant body of facts, which can be applied to any language, regardless of its structural characteristics (Stassen 2011: 90).

However, as we have seen (§ 2.33), animacy is a concept pervasively employed and accepted by linguists even as a universal, but its definition and scope are far from being homogeneous and well defined. In general, linguists depart from a set of data about a linguistic domain, whose internal differences can be explained as a whole by the Animacy Hierarchy, which can be adapted to their specific requirements.

In this dissertation, however, the path is just the opposite. Departing from a definition of animacy, I have tried to find the data that match that definition in a deductive way. Therefore, this requires determining an appropriate and precise definition of animacy to be adopted in this work, since it has a profound influence on the type of data collected, and its classification.

As pointed by Stassen, the definition of animacy cannot be inferred exclusively from the collection of concrete examples of its formal manifestation, since we run the risk of being circular, by getting to a partial definition of the concept that only includes the phenomenon that has already been employed to build the definition, thus leaving aside other instantiations of animacy. In summary, I do not want to define the concept of animacy, based on the analysis of some data in which it appears, which would be too restrictive, but rather to record the typological variety of these data by means of an already fixed definition based, as far as possible, on external aspects (semantic, pragmatic, functional, and so on), beyond purely formal ones, which may be specific for each language. Thus, it is important to divide the definition of the concept from its realization.

To illustrate this with an example, in Basque, as I have already pointed out, there is a morphological distinction in the locative cases (cf. the example from my own knowledge repeated in (18)). Animate referents add the morpheme *-ga(n)-*, which is absent for inanimates. However, in the declension of Slovak, as in many other Slavic languages, animacy is not marked in a given morpheme, but surfaces in a system of syncretisms by means of which animate masculine referents have the same form for the accusative and genitive, whereas inanimates syncretize the nominative and accusative, against the genitive, as shown in (19), adapted from Igartua (2005: 482). If I were to establish the definition of animacy under a purely formal criterion, in the case of Basque, animacy would be “a category that is marked morphologically between the determiner and the postposition in locative cases,” leaving out of our corpus many other important instantiations such as that of Slovak, but also inside the Basque language itself.

Basque. Language isolate.

- (18) a. *sukalde-a-n*  
       kitchen-DET.SG-INES  
       ‘in the kitchen’

- b. lagun-a-ga-n  
 friend-DET.SG-ANIM-INES  
 ‘in the friend’

Slovak. Indo-European.

- (19) a. chlap-Ø  
 person-NOM.SG  
 ‘the person’
- a’. chlap-a  
 person-ACC/GEN.SG  
 ‘the person/of the person’
- b. dub-Ø  
 oak-NOM/ACC.SG  
 ‘the oak’
- b’. dub-a  
 oak-GEN.SG  
 ‘of the oak’

However, if I employ purely external criteria in the definition of the object under study, I will have to cope with a vague and excessively broad concept, whose research is impossible to enclose and deal with. Stassen (2011: 96) cites a Haspelmath’s example in which the definition of *time* from a purely external view would include so vast a variety of aspects of grammar and so huge a corpus of affected formal structures, that it would make its cross-linguistic research almost infinite and unfeasible.

Consequently, even though the definition of animacy must be done following external criteria, the introduction of formal elements in the definition is helpful to delimit the scope of the research. Thus, I have reduced the scope of this dissertation to the morphological level, by paying attention just to the consequences of animacy in inflectional morphology in a formal way. Moreover, only inflectional morphology has been considered, not including examples of derivation. Therefore, functional analysis dealing with the reasons for animacy to cause this split and discussions about the nature of animacy itself (cf. § 2.33.3) have been avoided in general.

This work is certainly, in Song's (2001: § 1.6) words, a 'partial typology' of the influence of animacy in inflectional morphology, which does not include languages either without any animacy-based split, or with animacy-based splits not affecting inflectional morphology. In the next section I will specify the 'external' definition of animacy, as well as the limits of morphology from a formal approach.

#### 4.2. Narrowing the scope

As pointed out in the previous section, all the data included in this dissertation imply an animacy-based split that can be detected by a formal difference in the inflectional morphology of a category. That is to say, I have included examples in which due to animacy, either as a feature or as a condition (cf. § 3.4), a category has changed its morphophonological shape, due to the overt realization of an inflectional morpheme, a change of an inflectional morpheme or its shape, or cases in which animacy conditions the morpheme-order. Cases affecting just phonological, syntactic, or semantic aspects have only been included in exceptional circumstances. For instance, when a case marker has a comitative semantics with animates but an instrumental one with inanimates but it has the same morphophonological shape, it has not been included, since the approach is just semantic.

As we have seen (§ 2.33.2), it seems that the extended version of the Animacy Hierarchy, which is formed by different scales, works for the analysis of some data and is often adapted to these specific data. Thus, as I have pointed, animacy may be a universal phenomenon, but its specific realization and internal splits may change from one language to another. This sets out a problem for our approach, which is deductive, and requires a concrete definition of animacy and its hierarchy before starting the compilation of data.

Thus, I have decided to focus just on inherent hierarchies (cf. Figure 30), namely on biological animacy above all, but also including cases of inferred animacy due to culture, beliefs, mythology, and personification. Therefore, I have tried to avoid other inherent features, even if they are typically human, although it is not always easy to discern whether a language considers an entity animate due to its biological animacy, or due to some of these inherent factors such as the ability of movement, for instance. The discursive hierarchies have not been considered, since they are external, contextual, and non-inherent. Thus, in this dissertation I have focused on a narrow definition of animacy, by collecting just splits based on the inherent and inalienable properties of the individual referents of being human or animate, as seen from the point of view of a human being, and assuming that this restriction may entail leaving aside interesting data that could give a richer and

more precise explanation to a given phenomenon. The narrow view of animacy includes either that of human/nonhuman splits or animate/inanimate ones,<sup>46</sup> but also that of other entities such as deities, differences between higher and lower animates, and the possibility of considering an inanimate entity as animate due to different reasons, such as personification, beliefs, having some human-like properties, and so on.

In conclusion, non-inherent hierarchies such as that of person, referentiality, or type of nominal, among others, have not been taken into account, since only 3rd person referents can be either animate or inanimate, since splits based on referentiality are context-dependent, and because that related to the type of nominal implies that the same entity shows a split depending on whether it is mentioned as a common noun or a pronoun, for instance, which is not a semantic property, but a grammatical one. However, recall once again that even purely semantic animacy, based on inherent features, has not been interpreted as being completely biological, since as we have seen, other factors may promote and demote an entity along the Animacy Hierarchy in the speaker's eyes.

Let us show some consequences of these requirements more precisely. A split based on the type of NP such as that between proper nouns and common nouns, kin terms vs. common nouns, count vs. mass nouns, and so on, has not been analyzed. Thus the case of Kosraean (Siewierska 2004: 155), in which only proper nouns show agreement, has not been included, since, although often the referents of these proper nouns are animate, not all animate entities trigger this agreement.

Similarly, I have pointed that additional splits inside the pure Animacy Hierarchy, such as differences between higher and lower animates, have been considered. This is like that, because, even if the split in this case separates animate entities, the split is based on inherent features and one part of them goes together with human entities, and the other one with inanimates. However, splits that affect inanimate entities, such as being a mass or a countable noun, have not been included, since animate nouns can also be occasionally considered mass nouns. But if there is any difference between animate and inanimate mass nouns, it has been considered, since in this case animacy is the key of the split. Moreover, splits affecting only a subset of human, animate, or inanimate nouns have not been included, if one of the resulting split group does not go together with the nouns in other slot of

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<sup>46</sup> Thus, in some cases I have employed the term *animacy* as a generic, including cases just of humanness (humans/nonhumans).

the Animacy Hierarchy. Consequently, the case of Sursurunga (Corbett 2000: 26-9), for instance, which employs a greater paucal number with the people of a village called Himaul as a whole has not been taken into account, because, even if the greater paucal is restricted to human beings, it affects just a part of them.

Gender systems in languages are not always purely semantic and may be based also on formal criteria. Even in those systems that have a semantic basis (which is the most common according to Corbett (1991: 63)), animacy is not always easy to be traced. Whatever the system may be, as far as there is at least an animacy-based split, the data have been gathered, even if is not predictable in a straightforward way which gender an animate entity must belong to, or whether a certain gender marker will have animate or inanimate controllers.

Some elements such as case, or agreement in general, transcend the scope of morphology. The former is a syntactic feature with influence on the morphology of phrases, and verbal agreement. Actually, every type of agreement exceeds the limits of the word, and hence, of morphology, but agreement is often instantiated thanks to its consequences in the morphology of targets. Animacy examples related to case or any type of agreement have been studied from the point of view of their consequences in morphology. Phenomena related to free word order have been omitted, unless they do not go together with any morphological change.

Our classification is based on data referring to languages (and also dialects) as a whole system. That means that I have recorded instances of animacy-based morphological splits within a linguistic system, in a synchronic way. Thus, animacy effects that can be traced by comparing different stages of a language from diachronic perspective, by comparing synchronically some varieties of the same language or family (cf. § 3.3), different generations of speakers, or sociolects, are not the core of this dissertation, although some cases can be found. To be sure, in general, the instances included imply animacy effects that can be traced by analyzing the grammar of a single speaker.

Finally, it should be emphasized that, even if we depart from a human > animate > inanimate hierarchy that may have further subdivisions, and not always a solid biological basis, animacy-based splits that constitute a counterexample to the generalizations derived from this hierarchy by other linguists have been especially considered; for instance, those cases that go against the general rule by which animate entities are more marked than inanimate ones.



In summary, two general questions must be addressed to determine whether a split should be included in the database:

1. Is there any morphological alternation related to inflection?
2. In the face of a morphological alternation, would that be different if the inherent property of the animacy of the noun governing that alternation were different?



### III. TECHNIQUES

This chapter analyses which techniques are employed crosslinguistically for animacy distinction.<sup>47</sup> In this case, effects of animacy both as a condition and as feature have been treated together.

As I will show, two fundamental morphological techniques have been identified: affixation (§ 1) and alternation (§ 2). The main difference between them is that whereas as long as affixation adds new morphological (and phonological) material, alternation does not, that is to say, affixation is an additive technique, whereas alternation is a non-additive one (cf. Trommer & Zimmermann 2015). In turn, affixation has been divided in two sections: prefixation (§ 1.1) and suffixation (§ 1.2), both distinguishing free elements, clitics, and affixes. Alternation includes five subsections (§§ 2.1-2.5), depending on whether the animacy distinction also entails further changes in the features or values expressed, and whether syncretisms are avoided or instigated. Besides these main blocks of affixation and alternation, other typologically less common phenomena have been studied in this chapter. Free elements whose overt realization in a sentence depends on animacy have been treated in section § 3. Sections § 4 and § 5 involve examples of reduplication or subtraction of morphological material respectively. Instances of animacy controlling morpheme order have been addressed in section § 6. Section § 7 includes animacy effects that are over the scope of a morpheme, since they imply more than one morphological technique, and more than one morpheme affected. Next, section (§ 8) includes morphophonemic techniques (Spencer 1998: § 3) that are beyond the scope of this dissertation since they do not have any impact on morphology, but have been included due to their typological interest, and

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<sup>47</sup> Choosing an adequate term to name the phenomena included in this chapter is not an easy task. I have chosen the term ‘technique’ instead of ‘process’, since in my opinion the latter implies a notion of diachronic change.

their frequent relation to techniques that do have a pure morphological base. Finally, the last section (§ 9) considers mixed strategies, in which more than one technique in the previous sections act together. Therein, mixed morphological techniques form a section (§ 9.1), another (§ 9.2) has been dedicated to phenomena including more than one morphophonemic technique, and phenomena mixing morphological and morphophonemic techniques are in § 9.3. In the last section I will show some conclusions and I will contend that all these techniques can be organized into three main groups, namely those that change the morphophonological material, led by alternation, those that add or remove morphophonological material, whose main representative is addition, and a further group that includes techniques that do not fit exactly into the first two groups.

Considering that the human or animate feature tends to be more marked (with a few exceptions), the classification has been carried out according to the techniques triggered to mark the [+animate] or [+human] feature, that is to say, following the inanimate/nonhuman > animate/human path with a few exceptions for phenomena that are more widespread with [-animate] or [-human] entities, like reduplication or subtraction. As a result, for instance, if an animate entity has an overt suffix lacking in the inanimate counterpart, the phenomenon has been classified as an affixation technique, not as a case of subtraction; that is to say, I have considered the technique in this way [ $\emptyset > A$ ], instead of [ $A > \emptyset$ ].

It should be noted, furthermore, that sometimes it is hard determining either which category the alternate element belongs to, or the morphological technique triggered therein, since morphological segmentation is not straightforward or data sources do not explain it accurately. Let us illustrate this problem with an example taken from numbers in Sinhala. Looking at Table 11, which includes numbers from 1 to 10 in this language (Gair 2003: 784), it is not easy defining whether it is the full number that shows the alternance, or whether I should instead state that there is a kind of definite determiner (*-ə/-denaa*) and an indefinite one (*-ak/-denek*) that distinguish animacy through alternation, or more accurately, if we have a pure animacy marker *-den* suffixed to a root. In these dubious cases I have followed grammars in their descriptions and judgments.

**Table 11.** Numbers in Sinhala.

	Inanimate		Animate	
	Definite	Indefinite	Definite	Indefinite
1	<i>ekə</i>	<i>ekək</i>	<i>ekəkenna</i>	<i>ekəkene</i>
2	<i>dekə</i>	<i>dekək</i>	<i>denna</i>	<i>dennek</i>
3	<i>tunə</i>	<i>tunək</i>	<i>tundenaa</i>	<i>tundenek</i>
4	<i>hatərə</i>	<i>hatərak</i>	<i>hatərədenaa</i>	<i>hatərədenek</i>
5	<i>paba</i>	<i>pabək</i>	<i>pasdenaa</i>	<i>pasdenek</i>
6	<i>hayə</i>	<i>hayək</i>	<i>hayədenaa</i>	<i>hayədenek</i>
7	<i>hatə</i>	<i>hatak</i>	<i>hatdenaa</i>	<i>hatdenek</i>
8	<i>aṭə</i>	<i>aṭək</i>	<i>aṭədenaa</i>	<i>aṭədenek</i>
9	<i>namee</i>	<i>naməyak</i>	<i>namədenaa</i>	<i>namədenek</i>
10	<i>dabayə</i>	<i>dabayək</i>	<i>dabadenaa</i>	<i>dabadenek</i>

## 1. AFFIXATION

In affixation techniques, as I have already stated, new features are expressed by the addition of new morphological material. The main affixation techniques are prefixation and suffixation (Spencer 1998: 129-132).<sup>48</sup>

This added material might have different degrees of fusion with the element to which it is attached. Therefore, even if the term ‘affixation’ has been employed in a broad sense, there is a path from free words to affixes through clitics, depending on their morpho-

<sup>48</sup> Infixation is typologically a rather more unusual phenomenon (cf. Yu 2007: 1), and hence, finding examples in which animacy plays a role is even more unusual. I have found a single example, which, moreover, is not clear. In Atayal, an Austronesian language, some verbs in the active voice and neutral mood must take an infix -*m*- marker: *sbil* ~ *smbil* ‘leave behind’, *bop* ~ *bmop* ‘stab’ (Egerod 1965: 263 ff.). These forms with -*m*-, which are active, imply the agent to be animate or an atmospheric phenomenon. Other forms without this -*m*-, however, may also be animate or inanimate (Egerod 1965: 270). Thus, the absence of -*m*- does not entail that the agent will not be animate.

phonological independence, which has been taken into account to form subsections inside the sections both on prefixation and affixation.

### 1.1. Prefixation

This section shows how animacy can be distinguished by adding an affix that precedes the root or the stem. This affix can show different degrees of morphophonological independence, as I have already explained. Thus, three subsections have been made, namely free prepositions, clitics, and prefixes, although bibliographical sources do not always allow discerning clearly these distinctions or, even, different sources offer contradictory information in this regard.

#### 1.1.1. *Free elements*

Some languages use a free preposition to make an animacy differentiation in an NP that fits a given role in the sentence. Among many others, languages like Spanish (Blake 2004 [1994]: 120, 171; Ortmann 1998: 72-3; Siewierska 2004: 61) (cf. (20)), Romanian (Mallinson & Blake 1981: 200; Siewierska 2004: 155, 158), and Bhojpuri (Verma 2003: 526, 533-4), mark the animate direct object of a sentence by the prepositions *a*, *pe*, and *ke* respectively, which are, in these cases, also employed for the indirect object in ditransitive sentences. Specificity is also important for overt marking in all these languages.

Spanish. Indo-European

(20) a. veo mi coche

I.see my car

'I see my car.'

b. veo a mi amigo

I.see PREP my friend

'I see my friend.'

Some data in Gikuyu differ from Spanish and Bhojpuri in that the preposition *gwi*, which marks the animacy of the direct object, is not prefixed to it, but to the NP of the indirect object, as shown in (21) (Mallinson & Blake 1981: 163).

Gikuyu. Niger-Congo.

- (21) a. mūthuri ūriā mūkuru nīanengerire mūtumīa i hūa  
 man ʔ<sup>49</sup> old gave woman flower  
 ‘The old man gave the woman the flower.’
- b. mūtumīa nīanengerire mwarī wake **gwi** kahī  
 woman gave daughter her to boy  
 ‘The woman gave her daughter to the boy.’

In Guguyimidjir, a Pama-Nyungan language from Queensland, the prefixed element is a free pronoun. NPs referring to an animate entity normally include this pronoun in initial position, even if they are full nouns (Haviland 1979: 101-4), as I show in (22).

Guguyimidjir. Pama-Nyungan

- (22) nyulu bidha-al warrbi dumbi  
 3.SG child-ERG axe break.PST  
 ‘The child broke the axe.’

The Mba language, spoken in the Democratic Republic of Congo, has a pronoun that can only be co-referenced with animate entities. This free pronoun can be used optionally also as an overt marker of animacy preceding other personal pronouns, numerals, some interrogatives, and some demonstratives (Aikhenvald 2000: 75). Examples in (23) provided by Corbett (1991: 186) are especially interesting, because even though agreement in gender 5 does not show any semantic basis, the optional agreement through the personal pronoun before the numeral is purely animacy-based.

Mba. Niger-Congo.

- (23) a. kía (6i) k-íma  
 snake(5) 3.SG 5-one  
 ‘one snake’
- b. kásá \*6i k-íma  
 leaf(5) 3.SG 5-one  
 ‘one leaf’

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<sup>49</sup> This element has not been glossed in the source.

The Uto-Aztecan language Cora has a restriction to attach local cases to animate entities. The problem is resolved by adding a prefixed free pronoun in adposition (Kittilä, Västi, & Ylikoski 2011: 13).

Cora, El Nayar. Uto-Aztecan.

- (24) a. *haitiri-hap<sup>w</sup>a*  
 clouds-on  
 ‘above the clouds’
- b. *wa-hap<sup>w</sup>a    <sup>?</sup>u-huci-m<sup>w</sup>a*  
 them-on    their-younger.brother-PL  
 ‘on their younger brothers’

### 1.1.2. *Clitics*

Instances of overt prefixation of clitics due to animacy are not easily found, and often data sources do not indicate clearly their status of clitics in opposition to affixes. Tlingit, a language from Alaska and Canada, uses a clitic *has#* attached, among others, to a transitive verb, to mark the plural of either the subject, the object, or both, provided they are 3rd person pronouns, and humans (Corbett 2000: 135-6, footnote 4).

Hupdë has also a good example of prefixed clitization. This language from the Amazon has a sort of noun that must always be preceded by a nominal (Epps 2008: 158-9, 232). Typically, human denoting bond nouns (except, surprisingly, the words for ‘infant’ and ‘person/human’) are attached to the 3rd person singular pronoun or other nouns specifying the bound noun (Epps 2008: 238-9). In example (25), human body parts have a free possessive nominal, whereas animal body parts use a clitic nominal (Epps 2008: 252-255).

Hupdë. Puinavean.

- (25) a. *tĩnh nũh*  
 her head  
 ‘her head (human)’
- b. *tĩh=tõk*  
 its=belly  
 ‘its belly (animal)’



### 1.1.3. Prefixes

Prefixes marking just animacy are found only scarcely. Akan, a Niger-Congo language, prefixes the human marker *ba-* to numerals from 1 to 9, provided they modify a human entity (cf. (26)): It is never used with inanimates, and rarely with animates. Moreover, the use of the prefix is questionable when the number is a modifier, but not a pronoun (Osam 1993/1996: 156-7). In the related language Nkami (Asante & Akanlig-Pare 2015: 82-83), apart from numerals, the pronoun for ‘how many’ is also marked with a special prefix when it refers to humans (cf. (27)).

Akan. Niger-Congo

- (26) a. nyimpa ba-anan  
           people ANIM-four  
           ‘four people’
- b. n-dua           \*ba-anan  
           CLASS.PL-tree ANIM-four  
           ‘four trees’

Nkami. Niger-Congo.

- (27) mini    a-sa           ba-amini           ni    mini-ba?  
           2.PL.OBJ PL-person ANIM-how.many FOC 2.PL-come  
           ‘How many of you (people) did come?’

There are further examples of overt affixation of a gender marker determined by animacy also in systems with broader gender distinctions. The North Caucasian language Archi distinguishes four genders in the singular, but only two in the plural, namely animate and inanimate (Table 12). Thus, in the plural paradigm at least, overt gender marking by prefixation is restricted to animate entities (Corbett 2006: 120).

A similar pattern can be found in Khinalugh, an East Caucasian language for a subgroup of verbs that take a prefixed gender marker *b-* in the plural for humans, but no overt marking for nonhumans (Corbett 1991: 120).

**Table 12.** Gender-number verbal markers in Archi.

	Sg	Pl
I	<i>w-</i>	<i>b-</i>
II	<i>d- -r-</i>	
III	<i>b-</i>	$\emptyset$ -
IV	$\emptyset$ -	

Similarly, the Niger-Congo language Akan, which has a prefixing classifier system already in decay, usually keeps it in the plural, since the classifier is also a number marker. Some nouns have lost the classifier both in the singular and plural but, according to Osam (1993/1996: 155), animate nouns tend to keep it in the plural more than inanimate ones. Compare examples in (28a) and (28a') with those of (28b).

Akan. Niger-Congo.

(28) a. prako

pig

'pig'

a'. m-prako

CLASS.PL-pig

'pigs'

b. kuntu

blanket

'blanket/blankets'

The case of Akan resembles that of Makonde. In this Niger-Congo language a former syntactic gender agreement has been replaced by a semantic one; therefore all animate entities agree now in gender 1/2. Gender 1/2 nouns, and only these, take a prefixed overt gender marker, although only in the plural, which has also spread to animate nouns traditionally not belonging to that gender. Thus, animate nouns formerly in other genders take this overt prefixed gender marker in the plural. In example (29), the word for 'cow', which was before in gender 9/10 now takes the plural animate gender prefix *βa-* (Corbett 1991: 255).

Makonde. Niger-Congo.

- (29)  $\beta$ a-ng'ombe    a- $\beta$ a  
       2-cows            2-these  
       'these cows'

On different matters, arguments, apart from being overtly marked, may trigger agreement on different targets, depending on the animacy of the controller. In some data from languages like Nkami or Bunak, the target is a verb. In the latter (cf. (30)), a prefixed bound pronoun agreeing in person is overtly attached to the verb, but only when the controller, the direct object in this case, is animate (Holton & Robinson 2014: 162).

Bunak. Trans-New Guinean.

- (30) a. Markus zo            poi  
       Marcus mango choose  
       'Marcus chose a mango.'
- b. Markus zap go-poi  
       Marcus dog 3-choose  
       'Marcus chose a dog.'

In possessive constructions in Moskona, a language spoken in Papua, a bound pronoun is also prefixed, but in this case it is the possessed noun that bears it, showing agreement with the possessor, provided the latter is human (Gravelle 2013: 94). See examples in (31).

Moskona. East Bird's Head-Sentani.

- (31) a. i-osnok            **i-ebirorha**  
       3.PL-person    3.PL-skull  
       'people's skulls'
- b. mes **owoka** Masur    dokun    Masik  
       dog name sandfly    and    mosquito  
       'The dog's names were Sandfly and Mosquito.'

Prefixed bound pronouns in Abui are especially interesting, as animacy plays a role in two ways: both by affixation and alternation. Now only the first will be addressed. As summarized in the 3rd singular bound pronouns table below (cf. Table 13), only verbs that can have either animate or inanimate objects are overtly marked with an agreeing prefixed

pronoun. Furthermore, among these bound pronouns, three alternative forms are available, depending on affectedness and animacy again (Klamer & Kratochvíl 2006: 63-4).

**Table 13.** Singular bound pronouns in Abui.

Inanimate objects only	Animate and inanimate objects		
	Affected	Unaffected	
		Animate	Inanimate
$\emptyset$	<i>ha-</i>	<i>ho-</i>	<i>he-</i>

In Teiwa, a Trans-New Guinean language, animacy controls the prefixation of a bound pronoun in the verb. However, unlike in the previous examples (cf. that of Bunak in (30)), this pronoun is always overtly expressed, since it appears as a free pronoun when denoting an inanimate entity (Klamer & Kratochvíl 2006: 61).<sup>50</sup> Although not mentioned by Klamer and Kratochvíl, in my opinion the possibility that the objects in both examples may not have the same semantic role should not be ruled out.<sup>51</sup>

Teiwa. Trans-New Guinean.

(32) a. a      ga-regan.  
3.SG 3-ask  
'He asks him.'

b. a      ga'an regan.  
3.SG 3    ask  
'He asks it.'

In Southern Tiwa (cf. (33)), the direct object is always present, but it is incorporated by prefixation, depending on four factors: animacy, number, presence of a modifier, and person of the subject. In this case, an inanimate object, for instance, must always be incorporated (Allen, Gardiner, & Frantz 1984: 294-295).

<sup>50</sup> Some verbs change their meaning depending on whether the pronoun is bound or free (Klamer 2014: 22). As this is not a morphological but semantic phenomenon, I have not analyzed it.

<sup>51</sup> Actually, the issue is more complicated than that, since some verbs that have animate objects use the free pronoun, and the opposite is also attested (Fedden *et al.* 2013: 43).

Tiwa, Southern. Kiowa-Tanoan.

- (33) a. yede ti-shut-pe-ban  
 That 1.SG>SG.GENDER:II<sup>52</sup>-shirt-make-PST  
 ‘I made that shirt.’
- b. \*yede shut ti-pe-ban

## 1.2. Suffixation

In the previous section (§ 1.1) examples of morphological substance preceding an element have been analyzed. Now I will focus on morphological techniques that involve the addition of elements after a root or a stem, which is, actually, typologically more frequent. Similarly, I have explained separately free prepositions, clitics, and prefixes, in accord with their morphophonological independence.

### 1.2.1. Free elements

Some languages add a free postposition only when the controller is human or animate. Let us provide just a couple of examples to illustrate this technique; from Awa-Cuaiquer, a Barbacoan language from Ecuador and Colombia, and from Marathi, as a representative of a common phenomenon in some Indo-European languages in India. In Awa-Cuaiquer (cf. (34)), patients of ditransitive sentences are overtly marked by means of a free postposition *ta*, when they denote human nouns (Siewierska 2004: 47-8). In Marathi, (cf. (35)), it is *laa* that is introduced, provided the patient is both specific and animate (Blake 2004 [1994]: 128-129).

Awa-Cuaiquer. Barbacoan.

- (34) na=na Demetrio ta pyan-tu  
 I=TOP Demetrio ACC hit-IMPF  
 ‘I hit Demetrio.’

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<sup>52</sup> This gloss expresses the idea that this morpheme co-references a 1st person singular subject and a singular object in gender I. Gender I is used for animates and some inanimates, and genders II and III are for inanimates (Allen, Gardiner, & Frantz 1984: 293, footnote 5).

Marathi. Indo-European.

- (35) a. ti kee| khaa-t-e  
 she banana eat-PRES-3.SG.FEM  
 ‘She eats a banana.’
- b. ti Ravi laa cha|l-a  
 she Ravi ACC torture-pres-3.SG.FEM  
 ‘She tortures Ravi.’

Jamamadí (Corbett 2000: 273-274), a language spoken in the Amazon, postposes a free 3rd person plural pronoun to animate nouns exclusively, as can be seen in example (36). Kalam (Pawley 2006: 88), in Papua New Guinea, applies the same rule after an animate object.

Jamamadí. Arauan.

- (36) a. jomee tafa-ka  
 dog eat-DECL.MASC  
 ‘The dog is eating.’
- b. jomee mee tafa-ke  
 dog 3.PL eat-DECL.FEM  
 ‘The dogs are eating.’

Waorani, another Amazonian language, introduces an element after the object, which Peeke (1994: 269) terms an *object* marker, or more accurately, *affective* marker. It is etymologically the stative participle of the verb *to be*, inflected for the person and number of the object. This is always used with human objects, and seldom with domestic and big animals marking person and number or not. See *ĩdate* in example (37).

Waorani. Language isolate.

- (37) bitō tōdīya-da ĩ-da-te a pe-bi-i  
 your sibling-3.DU be-3.DU-ing shout call-2.SG-PST-IG  
 ‘Are you calling out to your two brothers?’

Bengali has a restriction that blocks local cases to appear with animate entities. In these circumstances, a free element meaning ‘body’ is introduced after the animate noun, and takes the local case. Examples in (38) show clearly the contrast, as *pātro* means both ‘bowl’ (inanimate) and ‘bridegroom’ (animate) (Dasgupta 2003: 364).

Bengali. Indo-European.

- (38) a. pātre          dhulā          lāgibe  
          bowl.LOC   dust.NOM   will.fall  
          ‘Dust will fall on the bowl.’
- b. pātrēr<sup>53</sup>                  gāye          dhulā          lāgibe  
          bridegroom.GEN   body.LOC   dust.NOM   will.fall  
          ‘Dust will fall on (= on the body of) the potential bridegroom.’

Another language from the Amazon, Hupdë, reveals an interesting example of free postposed elements whose appearance is controlled by animacy. In this language, an animate entity followed by an agent must take the particle *hũy*, which means ‘following’, to mark that the followed entity is animate (Epps 2008: 469-7).

Hupdë. Puinavean.

- (39) ?in   hũy   hám!  
          1.PL   FLW   go.IMP  
          ‘Follow us!’

In the case of Takia (Ross 2002: 228), spoken in Papua New Guinea, it is the free postposed coordinator that must appear overtly when the coordinated NPs are animate. Otherwise, NPs are just juxtaposed.

Takia. Austronesian.

- (40) a. Meit Kabun   da  
          Meit Kabun   COM  
          ‘Meit and Kabun’
- b. mau   dabel fud  
          taro   yam   banana  
          ‘Taro, yam and banana’

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<sup>53</sup> The meaning of this *-r* is not glossed in the source of data, but Thompson (2012: 63) shows that it is the genitive morpheme.

### 1.2.2. *Clitics*

As mentioned in § 1.1.2, examples of clitic elements whose presence is determined by animacy are found only scarcely, or descriptions and data concerning the nature of the morpheme are misleading. Awa-Cuaiquer, as inferred from data taken from Aikhenvald (2013: 12, 19-20), uses an overt enclitic genitive or possessor when this possessor is human; otherwise, possessor and possessed are simply juxtaposed, as shown in example (41).

Awa-Cuaiquer. Barbacoan.

- (41) a. Santos=pa    pimpul  
          Santos=GEN leg  
          ‘Santos’ leg’
- b. kwizha    pimpul  
          dog      leg  
          ‘dog’s leg’

Overt plural marking restricted to animate or human entities is a widespread phenomenon. These markers are often postposed clitics, as in example (42) from Hatam, or in East Makian in (43), both languages from New Guinea, although genetically unrelated. Animates are overtly marked, but inanimates cannot have an overt plural marker. Examples have been taken from Haspelmath (2013). There is a special plural marker in Guajajára that is worth mentioning. It is used when the subject, the direct object, or both are plural and animate, but, surprisingly, it is cliticized at the end of the clause (Jensen 1999: 151).

Hatam. Language isolate.

- (42) munggwom(=nya)  
          child/children(=PL)  
          ‘children’

East Makian. Austronesian.

- (43) wang=si  
          child/children(=PL)  
          ‘children’



Case markers can also be clitics controlled by animacy. Manangba, in Nepal, marks a direct object overtly with a clitic marker =*ri*, provided it is animate.<sup>54</sup> This marker has many functions. It is also employed for goals in ditransitives, as a general locative, as a marker for subjects being experiencers, as a topicalizer, and even as an indefinite determiner, which suggests that animacy might be only partially involved, together with other features inherent to different semantic roles (Hildebrandt s.d.: 112-121; Hildebrandt & Bond 2017 [2003]).

Manangba. Sino-Tibetan.

- (44) a. k<sup>h</sup>we<sup>42</sup> napraŋ<sup>22</sup> p<sup>h</sup>ute=ko=tse<sup>22</sup> njukju=ko=ri<sup>22</sup> pju-pɜ<sup>52</sup> ro<sup>22</sup>  
 honey fly swarm=DEF=ERG dog=DEF=PAT chase-NOM REP  
 ‘The swarm of honey bees chased/was chasing the dog.’
- b. mriŋ=ko=tse<sup>22</sup> ufu=ko<sup>22</sup> kola=ko=ri<sup>52</sup> pin-tsi<sup>22</sup>  
 woman=DEF=ERG apple=DEF child=DEF=LOC give-PFV  
 ‘The woman gave the apple to the boy.’

In example (44a), the direct object ‘dog’ is overtly marked with the clitic. In contrast, in example (44b), the direct object is unmarked, but it is the indirect one that takes the clitic marker.

### 1.2.3. *Suffixes*

There is a wide range of examples in which suffixes of many different categories are overtly attached to another element, depending on animacy.

Although it is not very usual, some languages have a suffix employed exclusively to denote animacy, and no further features. In Basque, for instance, an isolate language spoken around the Western Pyrenees, local postpositions (locative, ablative, allative, and others built upon these) attached to an NP denoting a human entity must include a morpheme -*ga(n)(-)* postposed to the NP and preceding the local postposition. The genitive case -*(r)en-* may be used optionally (Santazilia 2013: 227).<sup>55</sup> See example (45). Equally, in Yanomamö

<sup>54</sup> Oliver Bond (pers. comm.) suggests that presumably also inanimate objects could be marked with =*ri* for topicality purposes.

<sup>55</sup> It seems that historically this animacy-based distinction was not that straightforward, and it is not hard to find counterexamples in historical texts and even in some expressions nowadays, in which an animate entity takes the locative marker without the animate-gender morpheme (cf. Creissels & Mounole 2011).

the animacy-marker *-i-* is added between the noun and the oblique case marker when the controller is animate. See Table 14 (Aikhenvald & Dixon 1999: 347).

Basque. Language isolate.

- (45) a. Iran-dik  
Iran-ABL  
'From Iran'
- b. lagun-a(-ren)-gan-dik  
friend-ART-GEN-ANIM-ABL  
'From a/the friend'

**Table 14.** Oblique case in Yanomamö.

	Inanimate	Animate
Non-peripheral	<i>-ha</i>	<i>-i-ha</i>
Peripheral	<i>-ha-mi</i>	<i>-i-ha-mi</i>

The group of Chinantecan languages, which makes animate/inanimate distinctions in many categories within a sentence, is also rich in the techniques and devices employed for that purpose. Among others, there is an affixed morpheme spelled sometimes as *-i<sup>3</sup>* or *-y*, denoting the animate value. Some Chinantecan languages have blurred the morpheme boundaries due to phonological changes, but it is still clearly present and easily identifiable in others. Moreover, this morpheme commonly reflects further morphological, phonological, or suprasegmental changes, but there are some minimal pairs in which the animacy distinction is only made through this morpheme. The preposition meaning 'in front of' in Chinantec from Usila in (46), is one of these examples (Skinner & Skinner 2000: 548):

Chinantec, Usila. Otomanguan.

- (46) a. ta<sup>5</sup>nei<sup>2</sup>  
in.front.of  
'in front of (inanimate)'
- b. ta<sup>5</sup>nei<sup>2</sup>-i<sup>3</sup>  
in.front.of-ANIM  
'in front of (animate)'

Both areally and genetically far from the languages of the Americas, in the Caucasus, Abkhaz builds partial questions by using the relative form of the nonfinite verb. If the asked NP denotes a human, the suffix *-da* must be added after the verbal root and after most of the other post-radical markers (Hewitt 1979: 10 ff.).

Abkhaz. North Caucasian.

- (47) y-àa-da  
 REL-come-HUM  
 ‘Who came?’

In all the examples provided so far, the added suffix was a marker denoting animacy or humanness. Nevertheless, animacy allows or blocks overt appearance of suffixes that show features other than animacy.

There are many examples of overt case marking controlled by animacy. Regarding the agent, in the Papuan language Bauzi, for instance, an overt ergative morpheme is added to the agent when the object is animate and precedes it (Foley 2000: 374-375). In the Kope dialect of Kiwai (Kittilä 2005: 508-509), the agent is overtly case-marked with *-ro* when the patient is at least as animate as the agent itself (cf. (48)). Concerning the direct object, in Gujarati (Kittilä 2008: 255-256), as in many other languages, only animate direct objects take the postposed case-marker *-ne*, as is shown in (49). Chamling, a Sino-Tibetan language from Nepal, shows the opposite pattern, since patients referring to nonhuman participants are obligatorily zero marked, whereas human patients can optionally be marked with the same suffix employed for dative marking, as examples in (50) show (Kittilä 2005: 506; Kittilä 2008: 245-246). Definiteness seems to be important for humans to be overtly marked.

Kiwai. Trans-New Guinean.

- (48) a. nuu pei =o-maaka  
 3.SG canoe make-NRPST  
 ‘He made a canoe.’
- b. nu-ro tiramu ea=a-maaka  
 3.SG-SUBJ Tiramú see-NRPST  
 ‘He saw Tiramú.’

Gujarati. Indo-European.

- (49) *sikshak-e vidarthi-ne pustak mokl-y-un*  
 teacher-ERG student-DAT book.NEUT.SG send-PST.PFV-NEUT.SG  
 ‘The teacher sent a/the book to the student.’

Chamling. Sino-Tibetan.

- (50) a. *khu-wa lungto-wa pucho(\*-lai) set-yu*  
 he-ERG stone-INST snake(\*-DAT) kill-3  
 ‘He killed a snake with a stone.’
- b. *khana khut(-lai) ta-set-yu*  
 you<sup>56</sup> he(-DAT) 2-kill-3  
 ‘You killed him.’

On a different matter, it is common that overt number marking suffixes appear only with human or animate entities. To mention just a few examples from different families, Korku (Nagaraja 1999: 31) in (51) has overt plural marking by means of a suffix restricted to animate entities, and Tlachichilco Tepehua (Watters 1988: 460-461) shows the same pattern, but marking is compulsory for humans and higher animates, and optional for other animates. In Bengali (Dasgupta 2003: 365), only animate entities (without a quantifier or number) can be overtly marked with the plural suffix, as is shown in (53), and in Korean it is the morpheme *-tul* that marks plural number in animate entities, provided they are also definite. In this case it is optional, but humans and animates are more likely marked (Corbett 2000: 137-8). Mandarin Chinese (Niu 2015) has a plural/collective marker *-men* postposed to pronouns, proper names, and nouns. It is only used with animate (definite) entities (cf. (54)). In example (55), taken from Bayanati & Toivonen (2015), the overt suffix for number marking appears on the verb, since in traditional Persian only animate subjects trigger verbal number agreement (Sedighi 2005: 1).

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<sup>56</sup> Kittilä glosses this word as the 1st person singular personal pronoun, but it must be a mistake, since 1st person is not involved in the sentence. Moreover, I have checked in the paradigm of pronouns provided by Ebert (2003: 535) that *khana* is the form for the second person singular personal pronoun in Chamling.

Korku. Austro-Asiatic.

(51) a. *ʃita*  
 dog  
 ‘dog’

a'. *ʃita-ku*  
 dog-PL  
 ‘dogs’

b. *da*  
 water  
 ‘water’

b'. *\*da-ku*  
 water-PL  
 ‘waters’

Tepehua, Tlachichilco. Totonacan.

(52) a. *capul*  
 snake  
 ‘snake(s)’

a'. *capul-in*  
 snake-PL  
 ‘snakes’

b. *ma:ti:*  
 door  
 ‘door(s)’

b'. *\*ma:ti:-n*  
 door-PL  
 ‘doors’

Bengali. Indo-European.

(53) a. *mohilā*  
 woman  
 ‘woman’

- b. mohilā-rā  
 woman-PL  
 ‘women’

Chinese, Mandarin. Sino-Tibetan.

- (54) wo qu zhao haizi-men  
 I go find child-PL  
 ‘I will go and find the children.’

Persian. Indo-European.

- (55) a. marda umad-an xune  
 men come-PST.PL home  
 ‘The men came home.’
- b. ketaba bad forush raft  
 books bad sale go.PST.SG  
 ‘The books sold badly.’

Overt suffixation may affect also bound pronouns. Palauan (Ortmann 1998: 71) includes a bound pronoun in the verb agreeing with the object in number and person, when this object is specific and, secondarily, animate.

Palauan. Austronesian.

- (56) a. te-’illebed a bilis a rengalek  
 3.SUBJ-PFV.hit dog children  
 ‘The kids hit a dog/the dog/some dog(s).’
- b. mchelebede-**terir** a rengalek!  
 hit-3.PL.OBJ children  
 ‘Hit the children!’
- c. ak mils-**terir** a retede el sensei  
 I saw-3.PL.OBJ three teacher  
 ‘I saw three teachers.’

Finally, a rare example of suffixation controlled by animacy can be found in Plains Cree. The distinction between proximate and obviative marking is restricted to animates. As summarized in Table 15, this distinction is realized in the singular through the addition

of a suffix *-a*, which marks the obviative in the animate noun, whereas the inanimate remains always unmarked (Wolfart & Carroll 1981 [1973]: 37).

**Table 15.** Proximate/obviative distinction in the singular in Plains Cree.

	Animate	Inanimate
	‘duck’	‘berry’
Proximate	<i>sīsīp</i>	<i>mīnis</i>
Obviative	<i>sīsīp-a</i>	<i>mīnis</i>

## 2. ALTERNATION

Alternation techniques are those in which no new morphological material is added and already existing forms are completely or partially replaced by others. Here, no distinction has been done between a full alternation, i.e. when a morpheme or word is completely replaced by other, and a partial one, that is to say, when a word changes part of its form but it is not clearly segmentable, as in cases of inflection, for instance. However, I have treated separately, as will be explained, four different types of alternation: pure alternation, alternation with change in a feature, alternation causing syncretism, and alternation avoiding syncretism. Sometimes, more than one of these techniques may appear at the same time, as will be finally demonstrated.

When pure alternation (§ 2.1) acts, a morpheme is replaced by another having the same features except for the animacy distinction. In other cases the alternation entails a change in the features or values expressed, which are other than animate/inanimate (§ 2.2). Moreover, animacy marking can make syncretic features or values that were formerly different (§ 2.3), or can avoid these syncretisms (§ 2.4). Finally, in section § 2.5 mixtures of these alternation techniques have been analyzed.

### 2.1. Pure alternation

This is the simplest type of alternation from the point of view of animacy. Here, a morpheme having the [-animate/human] value is replaced by another with a [+animate/human] value. No paradigmatic technique such as syncretism is involved, and there is no change in the further features or values expressed. An example of this comes from the plural marker in the Indo-European languages Magahi and Bhojpuri, which has different forms depending on the animacy of the NP to which it is attached. In Bhojpuri,

*sab* is used with human entities (and pronouns), and *log* with the rest (Verma 2003: 525). Similarly, in Breton, there is a plural marker almost restricted to humans (Ortmann 1998: 76).

Breton. Indo-European.

- (57) a. bag-où  
           boat-PL  
           ‘boats’
- b. paotr-ed  
           boy-PL  
           ‘boys’

Pure alternation in pronouns is very common. In European languages it is not difficult to find instances, like the pairs *who/which* or *anybody/anything* in English. 3rd person plural personal pronouns in the Sauvias dialect of Biak have pure animacy-based alternative forms: *si* is the form for animates, and *na* that for inanimates (Siewierska 2004: 109; Corbett 2012: 171). Persian, in the same way (see Table 16), has a pure alternation pattern, in which no feature but animacy is involved in the formal opposition (Ortmann 1998: 77). The same paradigm of pure alternation is also present in 3rd person plural pronouns in Finnish (Comrie 1989 [1981]: 191) for instance.

**Table 16.** 3rd person personal pronoun in Persian.

	Human	Nonhuman
Sg	<i>u</i>	<i>an</i>
Pl	<i>ifan</i>	<i>anba</i>

**Table 17.** 3rd person personal/demonstrative pronoun in Finnish.

	Human	Nonhuman
Sg	<i>hän</i>	<i>se</i>
Pl	<i>he</i>	<i>ne</i>

Moreover, in Iranian Persian, as in Bhojpuri and Magahi, plural markers in the noun have different forms depending on the animacy of the noun (Sedighi 2005: 3): *-an* is used



with human nouns, and *-ba* with nonhuman ones. Sedighi provides no explanation, but nonhuman pronouns and plural markers might be etymologically related.

The Bali language, in Indonesia, has two different forms to encode the goal argument (Kittilä 2008: 256-7), as can be deduced from examples in (58).

Bali. Austronesian.

- (58) a. guru-ne          nto   ngirim      buku    **sig**      anak-e      nto  
          teacher-DEF    that   AV.send    book    to    person-DEF    that  
          ‘The teacher sent a book to the person.’
- b. guru-ne          nto   ngirim      buku    **ke**      Indonesia  
          teacher-DEF    that   AV.send    book    to    Indonesia  
          ‘The teacher sent a book to Indonesia.’

Let us come back to the paradigm of bound pronouns in Abui, given in Table 13. As already explained, animacy operates twice in this paradigm. First of all, only verbs that allow having both animate and inanimate objects take an overt prefixed bound pronoun (see § 1.1.3). Moreover, animacy operates in a second way, by means of pure alternation. Among these verbs that can have either animate or inanimate objects and take, thus, a prefixed bound pronoun, different forms are available. Affected objects take *ba-* irrespective of their animacy, but among unaffected ones there is an animacy distinction: *bo-* is used with animate controllers, and *be-* with inanimates (Klamer & Kratochvíl 2006: 64 ff.). The difference from *be-* to *bo-* must be analyzed as a pure alternation technique, since leaving aside affectedness, that overrides animacy, between the inanimate form *be-* to the animate *bo-* the only feature involved is animacy.

Plains Cree proves that pure alternation may reach even verbal stems, since a different stem is used depending on the animacy of the direct object. For instance, in the case of the verb ‘to see’, *wāpabī-* is used when the object is inanimate, whereas *wāpam-* is the stem employed when an animate object is seen. Furthermore, the stem *ohpiki-* denotes an animate entity growing, but *ohpikin-* is used for an animate entity growing up (Ortmann 1998: 79-80; Wolfart & Carroll 1981 [1973]: 62-63). Other instances of pure verbal alternation come from the related languages Kalasha and Khowar (Bashir 2003: 846, 854). In these Indo-European languages, the verb agrees with the subject in person, number, tense, and animacy, and most of the tense-aspect combinations are built upon a main verb + an auxiliary (commonly the verb ‘to be’). This auxiliary makes an animacy distinction in the 3rd person,

by alternation. Table 18 gives the paradigm of Kalasha, in which the form *á-/áy-* is employed with animate subjects and *ṣ̌-/aṣ̌-* with inanimate ones.

**Table 18.** Auxiliary verb ‘to be’ in Kalasha.

Person	Present		Past-actual	
	Sg	Pl	Sg	Pl
1	<i>á-am (ás-am)</i>	<i>á-ik (á-sik)</i>	<i>áy-is (ás-is)</i>	<i>áy-imi (ás-imi)</i>
2	<i>á-as (ás-as)</i>	<i>á-a (á-sa)</i>	<i>áy-i (ás-i)</i>	<i>áy-ili (ás-ili)</i>
3 Animate	<i>á-au (ás-au)</i>	<i>á-an (ásan)</i>	<i>áy-is (ás-is)</i>	<i>áy-ini (ás-imi)</i>
3 Inanimate	<i>ṣ̌-u</i>	<i>ṣ̌-an</i>	<i>aṣ̌-ís</i>	<i>aṣ̌-íni</i>

## 2.2. Alternation with change in a feature or value

In the cases studied here, as a consequence of an alternation triggered by animacy, the inanimate morpheme leaves a feature or value other than animacy it had, to take another.

This happens, for instance, when animacy controls gender agreement in systems in which gender is not (purely) animacy-based. These languages tend to have one or two genders for mainly human or animate entities, and further genders for inanimates, although they may also include some animates. Moreover, in some languages semantic gender assignment systems are mixed with other non-semantic assignment rules. This leads us to consider an alternation in a gender marker, not a pure inanimate/animate alternation, but an alternation that changes a gender value, since these genders are not just markers of animacy or humanness. Consequently, gender alternations with systems bigger or different from that of animate/inanimate and/or human/nonhuman have been included here. Let us see some examples.

In Bemba, gender assignment is not completely animacy-based. However, when nouns belonging to different genders are conjoined, verbal gender agreement is controlled by animacy. In (59a), animate nouns belonging to different genders agree in gender 2, which is the canonical one for animate entities. Conversely, in (59b), inanimate nouns with different genders agree in gender 8 (Corbett 1991: 275). One should interpret this as meaning that the gender marker *ba-* in the verb alternates with *f̣-* not causing or avoiding any paradigmatic syncretism, like those instances included in §§ 2.3 and 2.4. Moreover, this cannot be considered as an instance of pure alternation (§ 2.1), as *ba-* and *f̣-* cannot be considered

alternative forms of the same gender marker whose only difference is animacy; they are actually different gender markers.

Bemba. Niger-Congo

(59) a. im-fumu na i-shilu **ba**-aliile  
 9-chief and 5-lunatic 2-left  
 ‘The chief and the lunatic left.’

b. ici-tabo, ubu-sanshi na ulu-balala **fi**-li kuno  
 7-book 14-bed and 11-peanut 8-be here  
 ‘The book, the bed, and the peanut are here.’

From a paradigmatic approach (cf. Table 19), the gender agreement paradigm of Burmeso, an East Bird’s Head-Sentani language from Indonesia, shows a similar situation. There are two inflectional systems that use different markers, but syncretisms are the same for both. Most nouns belong to the first three genders, so the remaining are residual. Moreover, as statistics show (Donohue 2001: 100-102), a nonhuman entity will take a marker in genders III, IV, V, and VI, and a human one will do so in genders I or II, with some exceptions. Thus, animacy can, at most, force an alternation from a gender that it is not only animacy-based, to another that is not even restricted to animate entities, but these alternations are not necessarily determined by animacy in other instances.

Even in paradigms with no syncretisms, in not completely animacy based gender systems, there is an alternation with a change in gender value that is sometimes determined by animacy, but not a change in animacy itself. Here, animacy operates as a condition for gender; not as a semantic feature. Let us consider, as an instance of that, the classifier system of Dyirbal in

Table 20 (Plaster & Polinsky 2007: 2). Actually, in my opinion, these classifiers are formed by a morpheme *ba(la)*- that is common to all forms, plus some case-marking morphemes (*-ŋgu-*, *-gu-*, and *-ŋu-*) so that, strictly, only *-l-*, *-n-*, *-m-*, and *-∅* would be proper gender markers. But apart from that, what concerns us at this moment is that belonging to a gender is not always and necessarily based on animacy: these are not pure animacy markers (Corbett 1991: 15-16). As a result, it would be better considering that when an inanimate entity is marked, for instance, with *balam* and an animate one with *balan*, this is not an example of pure alternation (animate/inanimate), but an alternation of a broader gender feature (from III to II).

**Table 19.** Verbal gender system in Burmeso.

	Gender assignment	Inflectional class 1		Inflectional class 2	
		Sg	Pl	Sg	Pl
I	male, some animals, tools, plants and nature elements, some body parts.	<i>j-</i>	<i>s-</i>	<i>b-</i>	<i>t-</i>
II	female, some animals, some body parts, and tools.	<i>g-</i>	<i>s-</i>	<i>n-</i>	<i>t-</i>
III	miscellaneous, some animals, non-animate, tools, plants and nature elements, most body parts.	<i>g-</i>	<i>j-</i>	<i>n-</i>	<i>b-</i>
IV	mass nouns, some body parts and nature elements.	<i>j-</i>	<i>j-</i>	<i>b-</i>	<i>b-</i>
V	banana, sago tree	<i>j-</i>	<i>g-</i>	<i>b-</i>	<i>n-</i>
VI	arrows, coconuts	<i>g-</i>	<i>g-</i>	<i>n-</i>	<i>n-</i>

**Table 20.** Classifiers in Dyirbal.

	Abs	Erg	Dat	Gen
I	<i>bayi</i>	<i>bangul</i>	<i>bagul</i>	<i>banul</i>
II	<i>balan</i>	<i>bangun</i>	<i>bagun</i>	<i>banun</i>
III	<i>balam</i>	<i>bayum</i>	<i>bagum</i>	-
IV	<i>bala</i>	<i>banqu</i>	<i>bagu</i>	<i>banu</i>

Some gender or classifier systems have markers restricted to humans or animates, like the Mayan language Jakalteko, which has a classifier for humans and another one for animals (Aikhenvald 2000: 82). This does not automatically entail a pure alternation, as not all human or animate entities bear these classifiers, but others.

Jakalteko. Mayan.

- (60) xil naj xuwan no7 laba  
 saw CLASS:HUM John CLASS:ANIMAL snake  
 'John saw the snake.'

Apart from gender markers, this type of alternation is also common with case markers. In Basque, a goal participant is usually marked with the dative case, and an inanimate one in the allative, as can be seen by comparing instances I myself provide in (61).<sup>57</sup> In Finnish, for animate goals the allative case is used, whereas the illative appears with inanimates (Kittilä 2008: 256).

Basque. Language isolate.

- (61) a. bidali liburu-a Maria-ri!  
 send book-DEF Maria-DAT  
 ‘Send the book to Maria!’
- b. bidali liburu-a Italia-ra/\*-ri!  
 send book-DEF Italy-ALL/\*DAT  
 ‘Send the book to Italy!’

Finnish. Uralic.

- (62) a. lähetti lähetti-i lähetttime-n lähettäjä-ille  
 messenger.NOM send-3.SG.PST transmitter-ACC sender-ALL  
 ‘A/the messenger sent a transmitter to the sender.’
- b lähetti lähetti-i lähetttime-n lähetystö-ön  
 messenger.NOM send-3.SG.PST transmitter-ACC embassy-ILL  
 ‘A/the messenger sent a transmitter to the embassy.’

But in regard to case, syncretisms in the Slavic languages are especially rich. In many of these languages, the general rule states that animate patients are marked like the nominative case, and inanimate patients like the genitive, under some specific conditions that vary from one language to another.<sup>58</sup> Consequently, the accusative is a nonautonomous case in some cases (Corbett 2011). Here I will provide just one simple example from Serbo-

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<sup>57</sup> However, the animate goal would also allow an allative marker instead of the dative one, with a slight semantic difference: in the dative construction there is an idea of acceptance or reception that is lacking in the allative construction. Obviously, an inanimate goal cannot actively accept anything. This makes us wonder whether even if approaches like that of Kittilä (2008) would take both *Maria* and *Italia* as goal arguments, there are some differences in their semantic roles, like volitionality, that are related to animacy, which suggest that *Maria* and *Italia* could in fact be considered different arguments.

<sup>58</sup> See Igartua (2005: §§ 3.2, 3.3) for a description of the phenomenon across the whole language family and other geographically close languages.

Croatian taken from Corbett (1991: 162) to illustrate the phenomenon (cf. Table 21). In this language most of the masculine singular nouns, and only these, are affected by these syncretisms. In the same way, pronouns in Armenian have the same syncretic pattern, but with the dative case, instead of the genitive (Baerman, Brown, & Corbett 2005: 47, 224).

**Table 21.** Masculine singular noun declension in Serbo-Croatian.

	Animate 'this student'	Inanimate 'this law'
Nom	<i>ovaj student</i>	<i>ovaj zakon</i>
Acc	<i>ovog studenta</i>	<i>ovaj zakon</i>
Gen	<i>ovog studenta</i>	<i>ovog zakona</i>

Regarding number, Gunwinggu, in Australia, provides an example of alternation changing a value. Only humans and higher animates show verbal number agreement. In (63a), the pronoun *abanmani-*, prefixed to the verb, reflects that a 1st person acts upon a 3rd one. The 1st person is in the minimal number (MIN), i.e., in the singular, and the 3rd person, which represents the human object, in the unit augmented (UAUG), that is to say, in the dual. However, in (63b), the bound pronoun *ba-* makes a minimal number agreement with the object “dog,” even if it is clearly plural (Corbett 2000: 58).

Gunwinggu. Australian.

- (63) a. *abanmani-na-ng*                      *bininj*  
           1.MIN/3.UAUG-see-PST.PFV      man  
           ‘I saw the two men.’
- b. *duruk*    *ginga*            *ba-bayeng*                      *ba-ngune-ng*  
       dog      crocodile    3.MIN/3.MIN-bite.PST.PFV      3.MIN/3.MIN-eat-PST.PFV  
       *na-wern-gen*  
       MASC-many-GEN  
       ‘The crocodile has eaten all the dogs/the many dogs.’

Alternation that changes the feature of direct/inverse marking, for instance in the Athabaskan or Algonquian languages, may also be controlled by animacy. In Navajo, the most animate NP precedes the less animate one in the sentence, irrespective of its syntactic function (Comrie 1989 [1981]: 191, 197). When both the agent and the patient are 3rd person,

there is a verbal morpheme to disambiguate the agent from the patient. When the agent is more animate than the object the direct morpheme *yí-* appears; otherwise, the inverse *bi-* is used, as can be seen in example (64) taken from Frishberg (1972: 262).

Navajo. Eyak-Athabaskan.

(64) a. shinaai      líí'              yi-ztał  
           my.brother my.horse    DIR-kick  
           ‘My brother kicked my horse.’

          a. shinaai      líí'              bi-ztał  
           my.brother my.horse    INV-kick  
           ‘My horse kicked my brother.’

### 2.3. Alternation causing syncretism

Syncretism is a paradigmatic alternation. As in other alternation cases, a morpheme is removed and another is introduced, but in this case, the new animate form does not distinguish features or values present in the inanimate one.

Abkhaz has three different sets of bound personal pronouns that encode arguments on the verb. They distinguish three persons (1, 2, 3) as well as singular and plural number. Furthermore, the second person has a masculine/feminine distinction (Hewitt 1979: 101-103). 3rd person pronouns distinguish humanness (human/nonhuman), both in the singular and the plural, except for the 1st set, which does not have such an animacy distinction in the plural. Moreover, 3rd person pronouns also have a masculine/feminine sex-based distinction in the singular of the 2nd and 3rd sets, but not in the 1st one. The system is ergative, as the first set is used for intransitive subjects and direct objects, the second one is for indirect object markers, postpositions, and possessed NPs, and the latter for transitive subjects (agents). 2nd and 3rd set are equal, except for the nonhuman singular form (cf. Table 22 and Table 23) (Hewitt 1979: 102-103). Note how, whereas in the plural there is a clear singular/plural number distinction, among humans the distinction is neutralized, since *y(ə)-* might encode either singular or plural forms.

Chukchi shows a degree of optionality in the form for the ergative marker, which drifts toward a syncretic pattern. The ergative marker for animates and inanimates is *-(t)e*. Human-denoting nouns, apart from this *-(t)e*, have the option of taking two alternative forms: *-ne* in the singular and *-rək* in the plural, like proper names and some kin terms. However,

these forms are syncretic with some locative cases used by inanimates (Comrie 1989 [1981]: 190).

**Table 22.** 3rd person bound personal pronouns in Abkhaz (2nd set).

	Human		Nonhuman
	Masculine	Feminine	
Sg	<i>y(ə)-</i>	<i>l(ə)-</i>	<i>a-</i>
Pl	<i>y(ə)-</i>	<i>y(ə)-</i>	<i>r(ə)-/d(ə)-</i>

**Table 23.** 3rd person bound personal pronouns in Abkhaz (3rd set).

	Human		Nonhuman
	Masculine	Feminine	
Sg	<i>y(ə)-</i>	<i>l(ə)-</i>	<i>(n)a-</i>
Pl	<i>y(ə)-</i>	<i>y(ə)-</i>	<i>r(ə)-/d(ə)-</i>

German has a subclass of nouns in the masculine declension that includes only animate nouns. Moreover, inanimate nouns formerly belonging to this subclass have been reanalyzed and included in other classes (Ortmann 1998: 76-77). This group forms what is called “weak” declension, which has more syncretic forms than the “strong” one (cf. Table 24).

**Table 24.** Masculine strong and weak declension endings in German.

	Strong declension		Weak declension	
	Sg	Pl	Sg	Pl
Nom	<i>-Ø</i>	<i>-e</i>	<i>-Ø</i>	<i>-en</i>
Acc	<i>-Ø</i>	<i>-e</i>	<i>-en</i>	<i>-en</i>
Dat	<i>-(e)</i>	<i>-en</i>	<i>-en</i>	<i>-en</i>
Gen	<i>-es</i>	<i>-e</i>	<i>-en</i>	<i>-en</i>

#### 2.4. Alternation avoiding syncretism

Instead of animacy causing syncretisms, the opposite situation is more common, i.e., animates tend to express more features of values than their inanimate counterparts. Avoid-



ing syncretism always entails distinguishing further features or values that inanimate or nonhuman entities did not distinguish. In these cases, the animate form takes an alternative form, so that it can be distinguished from an inanimate form, which is syncretic from others.

Regarding number, in Manam, dual and paucal markers are restricted to humans and some higher animals, especially if they are domesticated (Corbett 2000: 93). Inanimates must always be marked with the plural (cf. (65)). Animates, therefore, distinguish further number values than inanimates (Croft 1990: 95).

Manam. Austronesian.

- (65) a. áine      ŋára-di-a-ru  
           woman   that-3.PL-BUFF-DU  
           ‘those (two) women’
- b. áine      ŋára-di-a-to  
           woman   that-3.PL-BUFF-PAUC  
           ‘those (few) women’

This is also the situation, shown in Table 25, for agent marking in the North Caucasian language Bats (DeLancey 1981: 652, footnote). The ergative marker has an alternative form to mark the animate agent, avoiding the syncretism with the instrumental case.

**Table 25.** Agent marking in Bats.

	Animate	Inanimate
Erg	<i>c</i>	<i>y</i>
Inst	-	<i>y</i>

We find quite a similar example in Telugu, a Dravidian language whose accusative form in the plural has a different ending, avoiding a nominative/accusative syncretism existing in inanimate entities. See the paradigm in Table 26 (Baerman, Brown, & Corbett 2005: 42). Similarly, former masculine nouns in *-os* in Cappadocian Greek have nowadays nominative/accusative syncretism for inanimates in the plural, but separate forms for animates (Janse 2004: 7-9).

**Table 26.** Plural noun declension in Telugu.

	Inanimate 'houses'	Animate 'dogs'
Nom	<i>illu</i>	<i>kukkalu</i>
Acc	<i>illu</i>	<i>kukkalani</i>
Gen	<i>illa</i>	<i>kukkala</i>
Dat	<i>illaki</i>	<i>kukkalaki</i>

It is also common for animates to have feature distinctions that are syncretic for inanimates, in personal pronouns. Akan 3rd person bound pronouns (Osam 1993/1996: 159), especially in Asante and Akuapem dialects, have a number distinction lacking for inanimates (cf. Table 27). Abkhaz has three different sets of bound personal pronouns that encode arguments on the verb, as I have already pointed in § 2.3 (Hewitt 1979: 101-103). Let us pay attention in Table 28 to the animacy distinction of the third person personal pronoun in the first set; that for intransitive subjects and direct objects. Note that animacy avoids number syncretism by means of an alternative form.

**Table 27.** 3rd person bound personal pronouns in Akan.

	Animate	Inanimate
Sg	<i>ɔ-</i>	<i>ɛ-</i>
Pl	<i>ɔɔ-</i>	<i>ɛ-</i>

**Table 28.** 3rd person bound personal pronouns in Abkhaz (1st set).

	Human	Nonhuman
Sg	<i>d(ə)-</i>	<i>y(ə)-</i>
Pl	<i>y(ə)-</i>	<i>y(ə)-</i>

Note that morpheme *d(ə)-* encodes a human singular form in the first set, but conversely, is nonhuman and plural in sets two and three (Table 22 and Table 23). Similarly, *y(ə)-*, which is employed for nonhumans in the 1st set, is human (and masculine) in the remain-

ing sets, leading us to an idea of morphological reversal caused by animacy (Baerman 2007) with the existence of inverse markers or, maybe, inverse paradigms in some way.<sup>59</sup>

In Me'phaa, it is common for number and person agreement to appear overtly in different categories only when the controller is animate. In examples in (66), an interrogative pronoun shows that kind of agreement, which is also common in demonstratives, and it is an indefinite pronoun that shows this agreement in (67). Agreement in the stative verb affects both examples. Note that the cut-off point between the root and the morpheme showing number and person features is not clear (Marlett 2012: 3-4). Thus, although a phenomenon of affixation might be in the origin of these two forms, these data must be treated as an alternation technique. The avoidance of syncretism would come from interpreting, for instance, that a form like *ngwátaá* in (66a) would imply both a singular/plural and a person syncretism, absent in (66b).

Me'phaa. Otomanguean.

- (66) a. *ngwátaá gūmā dígá náà méfa*  
 how.many omelette be.EST LOC table  
 'How many omelettes are on the table?'
- b. *ngwátí<sup>n</sup> jùwáá? kúwá gū?wáá*  
 how.many.3.PL dog be.EST.PL.3.PL house.LOC  
 'How many dogs are in the house?'
- (67) a. *dígá <sup>m</sup>bóó*  
 be.EST one  
 'There is one (e.g., omelette).'
- b. *ítáà <sup>m</sup>báwī*  
 live.EST.3.SG one.3.SG  
 'There is one (e.g., dog).'

Looking at a similar situation from a paradigmatic point of view (Table 29), in Bhojpuri (Verma 2003: 527), the indefinite pronoun 'some' makes an alternation to mark animacy, but it also adds a new feature of honorability. The paradigm for the possessive marker in the Hohôdene dialect of the Maipurean language Baniwa (Aikhenvald 2003: 131; 2013: 19)

<sup>59</sup> This has been more extensively treated in § IV.1.1.

has the same pattern, but in this case, it is the feature of proximity that is restricted to animates (cf. Table 30). In these cases, it should be considered that both the honorable and non-honorable forms of Bhojpuri and the proximate/non-proximate of Baniwa are syncretic for inanimates. Swedish, however, combines both alternation avoiding syncretism and pure alternation. Note in Table 31 that in the opposition between a nonhuman entity and a human one, sex is distinguished. However, there is a pure animacy-based alternation from neuters, which are inanimates, to non-neuters or animates (Ortmann 1998: 77).

**Table 29.** The indefinite pronoun ‘some’ in Bhojpuri.

Inanimate	Animate	
	Honorable	Non-honorable
<i>kucho</i>	<i>kauno</i>	<i>kebu</i> (also oblique)

**Table 30.** The possessive marker for alienable possessed nouns in Baniwa.

Inanimate	Animate	
	Proximate	Non-proximate
<i>-re</i>	<i>-te</i>	<i>-ni</i>

**Table 31.** Personal pronouns in Swedish.

Inanimate		Animate	
Neuter	Non-neuter	Masculine	Feminine
<i>det</i>	<i>den</i>	<i>han</i>	<i>hon</i>

In Lealao Chinantec, it is the feature of person that is distinguished only for animates in singular pronouns (Rupp 2009: 7). Table 32 summarizes the situation. 1st and 2nd person have different forms for transitive subjects, provided their direct object is animate.

There is a usual double number and sex syncretism avoidance in examples from many languages like Tuyuca (Barnes 1994: 326) or Mohawk (Corbett 2000: 114-116). As a representative of these, remote pronouns in the Dravidian language Kannada (cf. Table 33) show, first of all, that singular and plural number is not syncretic for humans. Moreover, these make a sex distinction in the singular, syncretic for nonhumans (Ortmann 1998: 65-66).

**Table 32.** Singular pronouns in Lealao Chinantec.

	Object		
		Animate	Inanimate
Subject	1	<i>á², áʰ</i>	<i>y</i>
	2	<i>u</i>	<i>y</i>

**Table 33.** 3rd person remote pronouns in Kannada.

	Human		Nonhuman
	Masculine	Feminine	Neuter
Sg	<i>avanu</i>	<i>avaLu</i>	<i>avu</i>
Pl	<i>avaru</i>	<i>avaru</i>	

The paradigm of Arawak bound pronouns in Table 34 is especially interesting (Aikhenvald 2000: 279). In the change from nonhuman entities to human ones, number syncretism is avoided, since human entities have a specific form for the plural. Concerning gender, there is a sex-based distinction in the singular that marks a masculine gender, but not a feminine one, as it is syncretic with the form for nonhumans. Thus, this gender distinction that avoids syncretism cannot be considered as controlled by animacy, but by sex, since it is restricted to males, and not to all human entities. We have the same situation, among others, in languages like the Pama-Nyungan Kala Lagaw Ya or in many Arawakan languages, whereas in the Jean language Kaingang from Brazil it is the feminine that has a special marker, being syncretic with that of masculines and nonhumans (Aikhenvald 2000: 22-23, 56).

**Table 34.** 3rd person pronouns in Arawak.

	Human		Nonhuman
	Masculine	Feminine	
Sg	<i>li</i>	<i>tbo</i>	<i>tbo</i>
Pl	<i>ne</i>	<i>ne</i>	<i>tbo</i>

Blackfoot, an Algonquian language, uses a kind of determiner in the NP. It has an obviation difference for animate singular nouns. See in Table 35 that human obviative singular and nonhuman singular are syncretic (Russell *et al.* 2012: 57).

**Table 35.** Determiner in Blackfoot.

Animate			Inanimate	
Pl	Sg		Sg	Pl
	Proximate	Obviative		
<i>-wa</i>	<i>-iksi</i>	<i>-yi</i>	<i>-yi</i>	<i>-istsi</i>

It is worth explaining a case of alternation avoiding syncretism in Cappadocian Greek. In the North and Central dialects, the use of the article is restricted to the accusative case, which follows the pattern in Table 36. The description provided by Janse (2004: 5-7) states that *o*-stem nouns, originally masculine, take the masculine article when animate, whereas inanimates use the neuter article. In the change from the inanimate article to the animate one, a further feature, which is syncretic for neuters or inanimates, namely sex, is overtly expressed, even if the feminine article will, evidently, never appear with *o*-stems.

**Table 36.** The article in Cappadocian Greek.

	Sg	Pl
Masculine (Animate)	<i>to(n)</i>	<i>tus</i>
Neuter (Inanimate)	<i>to</i>	<i>ta</i>

Dagbani (Siewierska 2004: 104) has an interesting example of alternation avoiding syncretism that is related to pure alternation. 3rd person personal pronouns have the paradigm included in Table 37. Inanimates have two forms in the plural. Considering *ɣa* for the inanimate plural, the paradigm shows pure alternation from inanimate to animate, both in the singular and plural. However, a syncretic *di* is also possible in the slot for inanimate plurals. Anyway, animates inevitably avoid this number syncretism.

**Table 37.** 3rd person pronouns in Dagbani.

	Animate	Inanimate
Sg	<i>o</i>	<i>di</i>
Pl	<i>bɛ</i>	<i>di/ɲa</i>

## 2.5. Mixed alternation techniques

Sometimes alternation implies more than one of the techniques described above, operating together. Afar provides an example of alternation causing syncretism, but also changing the value of a feature. In this language, when the subject is formed by two conjoined NPs the verb can agree in the plural with it, or it can take the default feminine singular form. When both conjoined NPs are human, either plural or default number agreement is allowed, when animate it is uncertain, and with inanimates default agreement is compulsory (Corbett 2000: 203-205).<sup>60</sup> As seen in example (68), inanimate entities would trigger feminine gender and singular number agreement, but animates change a value of the number feature to plural, and have a syncretic form for gender, which is not distinguished. In Egyptian Spoken Arabic the situation is similar, humans being more keen on using the plural instead of the feminine singular default form (Corbett 2000: 208). Nanti, in Peru, marks inalienably possessed nouns with a possessive pronoun agreeing with the possessor in person, sex, and number (Michael 2013: 155). When the possessor is unidentified, if it is non-human, the 3rd person pronoun, which does not distinguish either number or sex, is employed, but with humans 1st person plural agreement is used (cf. (69)). Thus, animates change the feature of person and number, and lack the sex distinction.

Afar. Afro-Asiatic.

- (68) woò baacoytaa-kee kày toobokoyta temeete/yemeeten  
 that poor.man-and his brother came.FEM.SG/came.PL  
 ‘That poor man and his brother came.’

<sup>60</sup> Individuation and other factors allow plural agreement with inanimate conjoined NPs as well.

Nanti. Maipurean.

- (69) a. a-gito  
 1.PL-head  
 ‘human head/our head’
- b. o-shi  
 3.FEM.SG-leaf  
 ‘a leaf (of a plant. Lit. its leaf)’

The example of Marind is interesting in this regard, because the alternative form distinguishing gender (genders I and II are restricted to animates) is an infix, as can be seen in (70) (Corbett 1991: 116). Note that apart from a change in a gender value, number syncretism is also avoided.

Marind. Trans-New Guinean.

- (70) a. e-pe    anem    e-pe    **akek**    ka  
 I-DEF    man    I-DEF    light.I    is  
 ‘That man is light.’
- b. u-pe    anum    u-pe    **akuk**    ka  
 II-DEF    woman    II-DEF    light.II    is  
 ‘That woman is light.’
- c. e-pe    de    e-pe    **akak**    ka  
 III-DEF    wood    III-DEF    light.III    is  
 ‘That wood is light./Those pieces of wood are light.’
- d. i-pe    behaw    i-pe    **akik**    ka  
 IV-DEF    pole    IV-DEF    light.IV    is  
 ‘That pole is light./Those poles are light.’

### 3. OVERT FREE ELEMENTS

In some cases, the use or overt realization of a free word in the sentence is controlled by animacy. It is not a technique of affixation since the element included is independent. Consequently, these techniques cannot be considered purely morphological, but also syntactic, and should be treated separately.



Free possessive pronouns in the Niger-Congo language Nkami, for instance, which have different uses, appear overtly in 3rd person, when their co-referencer is animate, following the pattern in Table 38 provided by Asante & Akanlig-Pare (2015: 70), as shown in example (71). The same happens with the possessive pronoun *kɛ*, whose co-referencer must be always animate so that it can be overtly used (Asante & Akanlig-Pare 2015: 84-85), as example (72) demonstrates.

**Table 38.** Possessive pronouns in Nkami.

	Sg	Pl
Animate	<i>m(o)</i>	<i>amɔ</i>
Inanimate	$\emptyset$	

Nkami. Niger-Congo.

- (71) a. Kofi bɛ-sɔ mɔ  
 Kofi FUT-buy 3.SG.ANIM.OBJ  
 ‘Kofi will buy it (e.g., a dog).’
- b. Kofi bɛ-sɔ  
 Kofi FUT-buy  
 ‘Kofi will buy it (e.g., a broom).’
- (72) a. mɪ obu/bi ni  
 1.POSS house/child is.this  
 ‘This is my house/child.’
- b. mɪ kɛ ni  
 1.POSS PRO.ANIM is.this  
 ‘This is mine (house/\*child).’

Specific human nouns in Romanian, apart from being preceded by a preposition *pe* (see § 1.1.1), trigger person, number, and gender agreement in the verb through a free pronoun (Mallinson & Blake 1981: 200; Siewierska 2004: 155, 158).

Romanian. Indo-European.

- (73) o            caut            pe            o secreteră  
 3.SG.FEM look.for.1.SG ACC/DAT a secretary(FEM)  
 ‘I look for a secretary.’

#### 4. REDUPLICATION

Although it is quite uncommon, in Southern Payute Ute and Lakota (Nichols 1992: 144-145), there is an animacy distinction in which reduplication is involved. In the former, only animate nouns have a suffixed plural marker: Inanimates have a distributive reduplication. In Lakota number is not overtly represented in the NP. With animate controllers, the plural marker is postposed in the verb, but inanimates use reduplication. See examples from Lakota in (74). This seems to be the situation also for Proto-Uto-Aztecan, as humans use a reduplicated form for plural marking, and animates have a suffix. Inanimates are not overtly marked for number (Corbett 2000: 77). However, in the Uto-Aztecan language Hopi, as in Lakota, inanimate nouns use reduplication of the first syllable for plural marking, whereas human and animate nouns have alternative suffixes (*-mē* and *-tē*) respectively (Leedom 2014: 128). Igala (Folorunso 2015: 67), a Niger-Congo language, uses full reduplication as a strategy for plural marking only with inanimates, and with animates only when plurality must be focused (cf. (75)).

Lakota. Siouan-Catauwan.

- (74) a. wičhaša kǐ hí-pi  
 man ART come-PL  
 ‘The men have come.’  
 b. čhąki háskaska  
 tree tall (reduplicated)  
 ‘The trees are tall.’

Igala. Niger-Congo

- (75) a. úwó-úwó  
 hill-hill  
 ‘hills’

- b. ónú-ónú  
king-king  
'kings/many kings'

## 5. SUBTRACTION

Although not very common, in some cases the animate entity is less marked than the inanimate one, that is to say, there has been a phenomenon of subtraction (Trommer & Zimmermann 2015: 53-54). These examples are especially significant, because in the vast majority of cases, it is the animate form that is at least as marked as the inanimate one, or even more marked. Therefore, examples studied here are exceptions to this rule.

An example comes from Jemez number marking (Corbett 2000: 159-160). This Kiowa/Tanoan language from New Mexico has neither a singulative nor plural marker, but an inverse one. As Table 39 shows, dual is always overtly marked with *-eš*. However, the same marker is employed in the singular and plural, in an inverse way. In the latter, as is common, the animate form must take the overt marker to show plurality. On the contrary, in the singular paradigm, there is less morphological material in the inanimate than in the animate form, since the animate needs no overt marking.

**Table 39.** Number marking in Jemez.

	Sg	Du	Pl	Gloss
Animate	<i>ve•la</i>	<i>ve•laš</i>	<i>ve•laš</i>	'man'
Inanimate	<i>ʔetibaš</i>	<i>ʔetibaš</i>	<i>ʔetiba</i>	'box'

In Ngalakan, it is the inanimate third person that may be overtly co-referenced in the verb (or not), whereas the animate one must be always zero-marked. Consequently, the inanimate form is sometimes more marked than the animate form. See examples in (76), adapted from Merlan (1983: 82, 84). In this language, the subject is marked in the intransitive verb. Third person singular animate (masculine or feminine) nouns are zero-marked in the verb. Third person singular inanimate nouns, which belong to the *mu-* or *gu-* gender,<sup>61</sup>

<sup>61</sup> It is not easy to characterize whether an inanimate entity must belong to the *gu-* or *mu-* class. In the *gu-* class we can find body parts, tree names, terms related to vegetation, physiological phenomena, and so on. The *mu-*



**Table 40.** Intransitive bound pronouns in Ngalakan.

Person	Number	Form	
1	Singular	<i>ŋu-</i>	
	Inclusive dual	<i>yí-</i>	
	Exclusive non-singular	<i>yiri-</i>	
	Inclusive plural	<i>ŋuru-</i>	
2	Singular	<i>ŋiñ-</i>	
	Non-singular	<i>nuru-</i>	
3	Singular	Animate (Masc/Fem)	<i>Ø-</i>
		Inanimate ( <i>gu-</i> )	<i>gu-/Ø-</i>
	Non-singular	Inanimate ( <i>mu-</i> )	<i>mu-/Ø-</i>
			<i>buru-</i>

## 6. MORPHEME ORDER

It is quite an unusual technique, but there are some examples in which animacy controls the relative order of morphemes. In two related languages from Tanzania called Shambala and Haya, the relative animacy (or better, humanness) of the direct and indirect objects affects the relative order of agreement in personal bound pronouns. In these languages, bound pronouns agreeing with the direct and indirect object, which are the same, are attached to the verbal root. Their precedence is determined by the hierarchy of hierarchies in Figure 34, in which the highest element on the hierarchy gets closer to the verbal root.

**Figure 34.** Hierarchies in Shambala and Haya.

- a. Person: 1 > 2 > 3
  - b. Number: Singular > plural
  - c. Animacy: Human > nonhuman
  - d. Function: Indirect object > direct object
- Person > number > animacy > function

Person is the most important feature, before number and animacy. Finally, the function is also significant. As a consequence, with two 3rd person bound pronouns marking the direct and the indirect object respectively, provided they have the same number, the ani-

mate will precede the inanimate one, so that it is closer to the stem.<sup>62</sup> See example (78), taken from Siewierska (2004: 170-171). There, both pronouns are 3rd person singular, so humanness determines which pronoun must precede the verbal root.<sup>63</sup>

Shambala. Niger-Congo.

- (78) na-i-mw-itang-i-a  
 1.SG-**it-him**-call-APPL-ASP  
 ‘I call it for him.’

Another example of morpheme order determined by animacy comes from a Bolivian language isolate called Movima (Haude 2014: 296). In this language, the verbal complex has the basic structure represented in Figure 35. Usually, after the verbal root a direct/inverse marker is attached, and then a bound pronoun agreeing with the proximate argument is cliticized. Optionally, another bound pronoun after the proximate shows obviative agreement.<sup>64</sup>

**Figure 35.** Structure of the verbal complex in Movima.

verb-direct/inverse=proximate(--obviative)

Which argument must be proximate and which one obviative is controlled, first of all, by a person hierarchy ( $1 > 2 > 3$ ), as in example (79), in which the first person takes up the position of the direct NP, outranking the 3rd person. However, when both arguments are 3rd person, animacy and discourse prominence resolve the problem of precedence. Thus, in some cases animacy may determine which bound pronoun is proximate and must be, therefore, marked closer to the verbal stem.

<sup>62</sup> This is called ‘Animate First Principle’ (Tomlin 1986).

<sup>63</sup> There are additional restrictions: When there are conflicts between the hierarchies, person wins, unless both number and role are high on the hierarchy, i.e. singular and indirect. Moreover, neither 1st and 2nd person markers nor identical markers can occur in the same verbal complex, and direct and indirect objects can only differ in one parameter (person, number, or humanness). If these restrictions are not respected, one of the objects must be expressed by an independent NP.

<sup>64</sup> The proximate argument is closer to the verb and appears compulsorily, as it is more ‘important’ than the obviative one for the speaker (Bybee 1985: 13 ff.).

Movima. Language isolate.

- (79) sal-na=Ø--us  
 look.for-DIR=1.SG--3.MASC.AB  
 ‘I look for him.’

## 7. COMPLEX TECHNIQUES

Animate and inanimate entities often use different morphosyntactic structures to express the same thing. In these cases animacy affects at the same time segments that are above the scope of morphology, as they imply elements bigger than one single morpheme, word, or NP. Let us provide some examples.

In Dyirbal (Dixon 2013: 292-293), the circumstances for the use of the comitative case in predicative possessions are related to animacy. The possessed NP takes the comitative case when the possessor is nonhuman. Otherwise, it is the possessor that must be declined in the possessive case, leaving the possessed NP in its bare form. Note in (80a) that the pronoun *ɲaygu* is in the possessive case as long as *baŋgay* remains unmarked; in (80b), the possessor *giñan* has no marking, but the possessed NP bears the comitative marker.

Dyirbal. Australian.

- (80) a. *ɲaygu*      *baŋgay*    *bulayi*  
 1.SG.POSS    spear      two  
 ‘I have two spears (lit. my spears are two).’
- b. *giñan*      *baŋgay*    *jambun-ba*  
 this.FEM    spear      grub-COM  
 ‘This spear has a grub impaled on its end (lit. is with grub).’

Vafsi (Stilo 2004: 279) provides an interesting example. In this language there is a direct/oblique system to encode arguments on the verb. Tense, syntactic function, specificity, and animacy are the factors that determine whether an argument must be encoded as a direct or oblique bound pronoun, agreeing in person and number. In the present tense, animate specific patients must be encoded in the oblique case, and inanimate and unspecific ones in the direct one. In the case of adjuncts, conversely, animates are marked with the oblique, and inanimates in the direct case (Stilo 2004: 279). From the point of view of morphological techniques, direct bound pronouns appear postposed to the verbal root, but

oblique morphemes, instead of being prefixed to the verbal root, can also be suffixed to the word preceding this root, as in example (81).

Vafsi. Indo-European.

- (81) bera=s            hæ-da        tini  
       brother-3.SG    PVB-gave    him  
       ‘He gave him a brother.’

Hopi and Lakota, as explained in § 4, have two different strategies to mark plural on nouns, depending on animacy. Inanimate nouns reduplicate the first syllable, and animates and humans attach a suffix (Leedom 2014: 128).

It is well known that in English, a free preposition *of* is used to make reference to an inanimate possessor. With some exceptions, when this possessor is animate, the preposition is lost and *'s* is cliticized after the NP that references the possessor (Deane 1987). Moreover, dative shift constructions (cf. (82)), those that allow a goal being treated as a patient in English and other languages, provided this goal is animate, imply the lacking of the preposition *to* (Blake 2004 [1994]: 139-140; Mallinson & Blake 1981: 161-162).

English. Indo-European.

- (82) a. he sent the refugees food.  
       b. \*he sent the station food vs. he sent food to the station.

The case of Hupdë is somehow different. To show plurality in demonstratives, a plural marker is postposed when the controller is inanimate. With animates, on the other hand, this morpheme gets lost and a nominalizer is suffixed. See the distal demonstrative in (83) given by Epps (2008: 297). This could be considered a phenomenon of pure alternation, from the point of view that one morpheme alternates with other. However, this is not an example of a morpheme agreeing in animacy, but of a different syntactic construction, since one morpheme is a plural marker and the other is a nominalizer.

Hupdë. Puinavean.

- (83) a. n'i-d'ǎh  
       DIST-PL  
       ‘those (animate)’



- b. nʔi-nʔhɪh  
 DIST-NOM  
 ‘those, about there (inanimate)’

The case of Akan is especially interesting (Osam 1993/1996: 155-156). This language has a prefixing classifier system that agrees in gender and number. Gender assignment has a semantic basis in which animacy, among other things, is involved. However, this classifier system is in decay. Consequently, nowadays some nouns are not marked, others keep the classifier only in the plural to show number marking, and others have a classifier both in the singular and plural apart from adding a specific suffix for plural marking. Animate entities tend to be more conservative, so that words that still have classifiers denote, in general, human or animate entities, and thus, entities that distinguish plural number tend to be animate. Concerning number marking, in this situation of change in the classifier system, It could be stated that this language is moving from a classifier system agreeing in number, toward the situation summarized in Figure 36, in which overt plural marking and animacy are directly proportional.

**Figure 36.** Plural marking in Akan.

- a. Inanimates: no marking  
 b. Animates: plural classifier  
 c. Humans: Plural classifier + plural suffix

Examples in (84) illustrate the situation in Figure 36, although, as I have already stated, many exceptions can be found, as a consequence of this ongoing situation of change. If we compare the situation of inanimates with that of humans, two combined morphological techniques apply together: prefixation and suffixation.

Akan. Niger-Congo.

- (84) a. kuntu  
 blanket  
 ‘blanket(s)’  
 b. m-prako  
 CLASS.PL-pig  
 ‘pigs’

c. a-hen-fo

CLASS.PL-chief-PL

‘chiefs’

In Sinhala only animate agents are marked with nominative. Inanimates, on the other hand, take on the instrumental case. However, the impossibility of inanimate entities to be proper agents also forces an alternation in the verb, which must be passive (Kittilä, Västi, & Ylikoski 2011: 15).

Sinhala. Indo-European.

(85) a. lameya wælikandak hæduwa  
 child.NOM sand.hill.INDF make.PST  
 ‘The child makes a sandpile.’

b. hulangeŋ wælikandak hæduna  
 wind.INST sand.hill.INDF make-PASS.PST  
 ‘A sandpile formed because of the wind.’

In Japanese (Becker 2014: 66-67), Basque, and Spanish (own knowledge), inanimate agents cannot be marked with the nominative and must take an oblique preposition, de-transitivizing the sentence. See example (86) in Japanese.

Japanese. Japonic.

(86) a. \*zidoosya-ziko ga teen-ager o korosita  
 traffic.accident NOM teenager ACC killed  
 ‘A traffic accident killed a teenager.’

b. zidoosya-ziko de, teen-ager ga sinda  
 traffic.accident in teenager NOM died  
 ‘A teenager died in a traffic accident.’

Jaru, in Australia, does not allow the instrumental to be used with inanimate entities. Thus, animate instruments must use an alternative construction with the verb ‘to have’ + the ergative marker (Tsunoda 1981: 57-58, 142, 180, 227).

Jaru. Australian.

- (87) jalu-ngu    mawun-du na-ji                    jiwa-gu                    man-n  
           that-ERG    man-ERG    CAT-1.SG.ACC    fear/fright-INST    get-PRES  
           gunar-dawu-lu  
           dog-HAVING-ERG  
           ‘That man frightens me with a dog.’

## 8. MORPHOPHONEMIC TECHNIQUES

The techniques included in this chapter are not purely morphological, but phonological or suprasegmental. However, they have been included here due to their typological rarity and interest. All the examples below show an animacy distinction based on one single morphophonemic technique. Combinations of these have been considered in §§ 9.2 and 9.3.

### 8.1. Vowel alternation

In examples included here, it is only the change of a vowel that makes the animacy distinction. Cases of pure vowel alternation and vowel addition or diphthongization have been studied together. However, vowel alternation and vocalic morphemes are two different elements that should be kept separately. In vowel alternation phenomena, it is a phonological process that triggers the alternation. Vocalic morphemes are just different morphemes whose difference amounts to a vocalic opposition that is not caused by a phonological technique. These have been treated as a simple alternation, and have been addressed in § 2.

The most interesting and richest examples of vowel alternation come from Chinantecan languages. That is the case, among others, in an example from Ozumacin Chinantec. As I have already pointed out (see § 1.2.3), in the Chinantecan languages spoken in Mexico, a morpheme spelled, depending on the data source, as *-y* or *-i<sup>3</sup>*, is extensively employed to mark animate value. In Ozumacin Chinantec, however, this morpheme is removed when the controller of animacy agreement is present in the sentence, although phonological changes triggered by it, like vowel alternation, remain as the only animacy markers. In example (88), taken from Rupp (2009: 5, 14), the vowel alternation in the word for ‘swollen’ is the unique animacy-marking difference, as *-y* has been deleted.

Chinantec, Ozumacín. Otomanguean.

- (88) a.  $g\ddot{o}o^{-}y$        $he^{-}$        $gy\ddot{o}o^{-}$   
 hand-3      rel.INAN      swollen.INAN  
 ‘The hand that is swollen.’
- b.  $chih^{-}$   $hi^{-}$        $gyaa^{-}$  (<  $gyaa^{-}y$ )  
 child REL.ANIM      swollen.ANIM  
 ‘The child that is swollen.’

In the Chinantecan language of Usila, we find an example of animacy distinction based on vowel alternation in the form for the verb ‘to burn’, which agrees in animacy with the patient by changing *-e-* to *-a-* (Skinner & Skinner 2000: 498).

Chinantec, Usila. Otomanguean.

- (89) a.  $jeng^{3}i^{3}$   
 ‘to burn (a thing)’
- b.  $jang^{3}i^{3}$   
 ‘to burn (an animal)’

In the African continent, the 3rd person (bound) pronoun of the Niger-Congo language Hõne provides an interesting paradigmatic example of animacy—or more accurately, humanness—distinction by means of vowel alternation. Notice in Table 41, taken from Storch (2013: 211), that all pronouns except those used for the indirect object and possessives change the vowel, keeping vowel length. Moreover, in absolute pronouns and the affirmative one even stress remains unchanged.

**Table 41.** 3rd person singular pronouns in Hõne.

	Subject				Object			Pos- sessive
	Free		Verbal prefixes		Direct		Indi- rect	
	Non- emphatic	Emphatic	Neuter	Subject	Affirma- tive	Nega- tive		
Hum	<i>kùù</i>	<i>ákùù</i>	<i>ku-</i>	<i>kú-</i>	<i>kù-</i>	<i>-kó</i>	<i>yáà</i>	<i>-a(a)</i>
Nonhum	<i>kàà</i>	<i>ákàà</i>	<i>kà-</i>	<i>kà-</i>	<i>-kà-</i>	<i>-ké</i>	-	<i>-ka(a)</i>

Usila Chinantec also has a vowel alternation example in some verbal forms. Table 42 (Skinner & Skinner 2000: 504) shows the paradigm for the verb  $tó^{3}i^{3}$  ‘to roast (inanimate)’.

Here, a root in *o* changes into *ie*, among other things, from first person singular in present vs. the same form for motion, or this same form in the plural. This phenomenon of diphthongization or vowel addition has nothing to do with animacy, but with marking differences between person, aspect, and time features. However, Skinner & Skinner (2000: 503-504) point out that these verbs with *-o-*, having inanimate agreement, tend to change *o* to *ie* (as in Table 42), whereas verbs in *o* with animate agreement do it to *io*. Thus, to be precise, this phenomenon cannot be considered a diphthongization or vowel addition technique, since this change depends on features other than animacy. Actually, it deals with a pure vowel alternation from *ie* to *io*, depending on the animacy of the controller, for *o* stem verbs.

**Table 42.** Verb *to<sup>3</sup>i<sup>3</sup>* ‘to roast (inanimate)’ in Usila Chinantec.

	Present	Motion	Preterite	Future	Imperative	Imperative-negative
1 Sg	<i>to<sup>34</sup></i>	<i>ni<sup>1</sup>tie<sup>34</sup></i>	<i>a<sup>4</sup>to<sup>34</sup></i>	<i>to<sup>1</sup></i>		
1 Pl	<i>tie<sup>4</sup></i>	<i>si<sup>2</sup>tie<sup>32</sup></i>	<i>a<sup>4</sup>tie<sup>2</sup></i>	<i>tie<sup>32</sup></i>		
2	<i>tob<sup>3</sup></i>	<i>ua<sup>2</sup>tieb<sup>4</sup></i>	<i>a<sup>4</sup>tie<sup>4</sup></i>	<i>tob<sup>2</sup></i>	<i>tie<sup>4</sup></i>	<i>a<sup>5</sup>to<sup>3</sup></i>
3	<i>to<sup>3</sup></i>	<i>si<sup>5</sup>tie<sup>4</sup></i>	<i>a<sup>4</sup>to<sup>4</sup></i>	<i>to<sup>34</sup></i>		

Nevertheless, Chinantec from Usila also has instances of vowel addition or diphthongization. The word to name the color red, which in example (90) appears as an attributive adjective, agrees in animacy with its controller. Thus, the inanimate form shows an *-ei-*, whereas the form for animate agreement has an *-i-* (Skinner & Skinner 2000: 478).

Chinantec, Usila. Otomanguean.

- (90) a. *o<sup>1</sup>ri<sup>3</sup>teun<sup>23</sup>*    *yein<sup>4</sup>*  
          strip                red.INAN  
          ‘red strip’
- b. *a<sup>2</sup>cua<sup>32</sup>jegh<sup>32</sup>*    *yin<sup>4</sup>*  
          horse                red.ANIM  
          ‘red horse’

## 8.2. Nasalization

Evidence of nasalization as a unique technique for animacy distinction is found in the Chinantecan languages, which are, together with other Otomanguean languages, especially rich in techniques employed to mark animacy. It is not always clear in all examples whether the animacy marker is nasalization or a full nasal consonant. Anyway, the nasal seems to come etymologically from an old animacy-marking morpheme *\*-ŋ* (Blevins 2004: 205).

Furthermore, in the Chinantecan language of Palantla two levels of nasalization have been historically distinguished (Blevins 2004: 58). Although minimal pairs can be found, the two-level distinction is disappearing, assimilating all the light nasals either to the oral or to the heavy nasals. Whatever the case may be, some light nasals come from the former morpheme *\*-ŋ*, employed to encode animacy, and precisely these light nasals whose function is that of marking animacy are the more reluctant to become oral or heavy nasals, since the assimilation would result in a neutralization of animacy-distinction as well (Blevins 2004: 204-205).

Some examples of animacy-based nasalization can be found in the Chinantec of Usila. In (91) it is an adjective that agrees in animacy with the controller by a technique of nasalization. In (92), the verb meaning ‘to buy’ shows this distinction in the root, to agree with its object (Skinner & Skinner 2000: 478, 496-497).

Chinantec, Usila. Otomanguean.

(91) a. *jau*<sup>23</sup>    *tsei*<sup>23</sup>  
       word    good.INAN  
       ‘good word’

b. *chie*<sup>3</sup>    *tsein*<sup>23</sup>  
       person good.ANIM  
       ‘good person’

(92) a. *la*<sup>23:3</sup>  
       buy.INAN  
       ‘to buy (inanimate)’

a. *lan*<sup>23:3</sup>  
       buy.ANIM  
       ‘to buy (animate)’

The Chinantec of Ozumacin, like other Chinantecan languages, can trigger several different techniques to mark animacy, but in this language nasalization is especially abundant. As I have already pointed out, this language tends to drop the animacy-marker *-j*, widespread in the Chinantecan languages, under some specific circumstances (see § 8.1); consequently, in example (93) the nasalization of the vowel, represented by a macron under the vowel, is enough to show animacy agreement.

Chinantec, Ozumacin. Otomanguean.

- (93) a. *hne<sup>4</sup> caah'*  
           house   big.PL.INAN  
           'big houses'
- b. *gyuu` caah' (< caah'-y)*  
           squirrel   big.PL.ANIM  
           'big squirrels'

### 8.3. Tone

Once again, the clearest data showing animacy contrast based only on tone distinctions come from the Otomanguean languages. In general, higher tones are related to animates, and lower ones, to inanimates.

Usila Chinantec demonstrates a good instance of this in the root for the verb 'to pull', which has tone 2 when the pulled NP is inanimate, and tone 3 when animate (Skinner & Skinner 2000: 497).

Chinantec, Usila. Otomanguean.

- (94) a. *cmh<sup>2</sup>i<sup>3</sup>*  
           pull.INAN  
           'to pull (inanimate)'
- b. *cmh<sup>3</sup>i<sup>3</sup>*  
           pull.ANIM  
           'to pull (animate)'

In the Chinantec of Lealao bound pronouns have number and person agreement with the subject. Moreover, these bound pronouns agree in animacy with the object, but only if the subject is singular. As a result, in example (95) animacy distinction cannot be inferred

from the bound pronoun, which is plural, with tonal difference in the verbal root as the only way to mark the animacy of the object.

Chinantec, Lealao. Otomanguean.

- (95) a.  $hi^2-jmee^2-a^2$   
 FUT-make.INAN-1.PL  
 ‘We will make it (inanimate).’
- b.  $hi^2-jme^{32}-a^2$   
 FUT-make.ANIM-1.PL  
 ‘We will create it (animate).’<sup>65</sup>

Our last example, which is slightly different, comes from another branch of the Otomanguean languages. The Zapotecan languages have a rich system in personal pronouns. The concrete paradigm of Lachixío Zapotec is given in Table 43 (Marlett 2010: 13, 17). Note that the only difference between animates and inanimates is a matter of tone, as happens with these and the human informal pronoun.

**Table 43.** Personal pronouns in Lachixío Zapotec.

Human				Nonhuman		
Baby	Female	Formal	Informal	Animate	Inanimate	Deity
?	$nz\mu^{66}$	$z\acute{a}^{67}$	$\grave{i}$	$i$	$\bar{i}$	$m\mu^{68}$

#### 8.4. Stress

Examples of stress as a unique device to make an animacy distinction seem to be quite uncommon. The instance below is also dubious, as it seems that, instead of animacy, other semantic factors may be involved.

<sup>65</sup> The verb ‘to make’, treated as if it had an animate object, takes a ‘create’ sense even if the object is in fact inanimate (for instance, a picture).

<sup>66</sup> Used only for females under 20, married or unmarried.

<sup>67</sup> For authorities and considerably older people.

<sup>68</sup> For deities and angels in San Vicente de Lachixio, and also for parents and newborn children in Santa Maria de Lachixio.



Kittilä (2008: 250-251), following a Patience Epps' personal communication, suggests that in Hupdë there is a differential goal marking based on stress, as can be seen in Table 44.

**Table 44.** Differential case marking in Hupdë.

	Object	Goal
Animate	-án	-án
Inanimate	Ø	-an

The stressed form is used, apart from direct objects, for goals when they are recipients, beneficiaries, maleficiaries, or sources, as well as animate actors in passive sentences, whereas inanimate actors are marked with an oblique case (Epps 2008: 167-168). The unstressed form marks allative and ablative meaning, and sometimes locative (together with the oblique/comitative/instrumental case) (Epps 2008: 181 ff.), which is never used with animates, pronouns, and demonstratives. As a result, it is not clear whether the stressed and unstressed forms encode animacy variation or, more likely, different semantic roles. Examples showing minimal pairs with the same verb would be clarifying, but those provided by Kittilä and reproduced in (96) to illustrate the contrast seem to support the existence of different semantic roles more than a pure animacy distinction.

Hupdë. Puinavean.

- (96) a. *tíyí? tih=tæh-án wan nɔʔ-ɔh*  
 man 3.SG=son-**OBJ** knife give-DECL  
 'The man gave the knife to his son.'
- b. *ʔameriku ʔawponso-án pij deh-an d=ɔʔ-ham-yæh-æh...*  
 Americo Alfonso-**OBJ** cabari villaje-**OBJ** take-go-order-DECL  
 'Americo sent Alfonso to Cabari village.'

There is an interesting example in Slovene (pers. comm. Iván Igartua, and Nahtigal (1961: 190)), in which tone is determined by animacy, which acts as a controller of case marking; not as a feature. As can be seen in Table 45, animates have syncretic forms for dative and locative cases in the singular. This syncretism is avoided, however, by an acute vs. circumflex tone difference in inanimates.

**Table 45.** Dative/Locative syncretism in Slovene.

	Animate 'son'	Inanimate 'light, world'
Dat Sg	<i>sínu</i>	<i>svétu</i>
Loc Sg	<i>sínu</i>	<i>svétu</i>

### 8.5. Glottalization

The only example I have found of an animacy distinction based on glottalization comes from Teiwa. This language has a subset of verbs that take a 3rd person bound pronoun that agrees with the object in animacy. The only difference between a pronoun whose co-referencer is animate and that whose co-referencer is inanimate lies in the glottalization of the former (*ga'* vs. *ga-*), as can be inferred from these examples given by Klammer & Kratochvíl (2006: 63).

Teiwa. Trans-New Guinean.

- (97) a. *ga'*-wulul  
'talk with/tell him/her'
- b. *ga*-wulul  
'talk about it, tell it'
- c. *ga'*-wultag  
'talk to/about him/her, tell him/her'
- d. *ga*-wultag (or *gultag*)  
'talk about it'

## 9. MIXED TECHNIQUES

Techniques seen in the previous sections often take part together for animacy distinction; however, not all the possible combinations are attested. Sometimes, more than one morphological technique participates at the same time (§ 9.1), although one finds only very few examples of this. Besides, having more than one morphophonemic technique together is common, especially in the Chinantecan languages (§ 9.2). Finally, the Chinantecan languages have good examples of the combination of morphological and morphophonemic techniques, which have been put together in § 9.3.

### 9.1. Mixed morphological techniques

I have found a few examples of more than one morphological technique (those of §§ 1 and 2) operating together although, as already pointed out, it is quite uncommon. The main difference between these and complex techniques (cf. § 7) lies in the fact that in this case both morphological techniques affect the same morpheme, whereas in combined ones morphological phenomena affect different structures in the phrase or clause.

Pronouns in the Zapotecan languages are especially interesting in this respect. Some of them are syntactically and semantically independent, prosodically dependent but syntactically dependent, or both semantically and syntactically dependent. Moreover, 3rd person pronouns have a large range of semantic distinctions, which can be distributed in two main groups: humans and nonhumans. In general, animacy does not control the prosodic and syntactic independence of these pronouns, except in one case: that of the Zapotec of Coatecas Altas.

In this language, exceptionally, pronouns whose semantic distinction is related to humans, apart from being different, are prosodically dependent but syntactically independent (that is to say, clitics) and the remaining are both prosodically and syntactically dependent. Table 46 has been adapted from Marlett (2010: 12-16).

**Table 46.** 3rd person pronouns in Zapotec of Coatecas Altas.

Human								Nonhuman			
adult	alternate	baby	child	female	formal	infor- mal	male	animate	inanimate	deity	depreca- tory
= <i>fa</i> <sup>2</sup> , <i>ʒa</i>							= <i>mbi</i>	<i>-ma</i>	<i>-i</i>	<i>-mi</i>	<i>-ni</i> <sup>2</sup>

It should be noted, however, that in Tilquiapan Zapotec, if we consider deities as non-human entities, the situation is just the opposite, having clitic morphemes with nonhuman denoting pronouns (Marlett 2010: 14-18).

**Table 47.** 3rd person pronouns in Zapotec of Tilquiapan.

Human						Nonhuman		
adult	alternate	baby	child	unmarried adolescent		animate	inanimate	deity
<i>-ba</i>	<i>-ni</i> <sup>2</sup>	<i>-bi</i>	<i>-nin</i>	<i>-ʒ</i>		= <i>ma</i>	= <i>n</i>	<i>-ni</i> <sup>2</sup>

## 9.2. Mixed morphophonemic techniques

In examples of morphophonemic techniques included in § 8, mainly with data from the Otomanguean languages, a single technique was solely responsible for the animacy distinction. However, these techniques tend to act mixed together, as I will show below. The following examples from the Otomanguean languages show interactions between nasalization, vowel alternation, and tone.

### 9.2.1. *Vowel alternation + nasalization*

The example in (98) from Comaltepec Chinantec shows how the word for ‘yellow’ takes a postnuclear nasal to mark animate agreement that triggers a change in the vowel (Palancar 2015: 34-35).

Chinantec, Comaltepec. Otomanguean.

- (98) a.  $\text{ʔe}^{\text{M}}$              $\text{hʔ}^{\text{L}}$              $\text{né}^{\text{M}}$              $\text{ké}^{\text{M}}$              $\text{dó}^{\text{M}}$   
           that.INAN      orange(INAN) yellow.INAN    of.1.SG    DEICT  
           ‘that yellow orange of mine’
- b.  $\text{ʔi}^{\text{M}}$              $\text{hʔ}^{\text{L}}$              $\text{ná:n}^{\text{M}}$              $\text{ké}^{\text{M}}$              $\text{dó}^{\text{M}}$   
           that.ANIM      wasp(ANIM)<sup>69</sup> yellow.ANIM    of.1.SG    DEICT  
           ‘that yellow wasp of mine’

To make numbers over fifty in Usila Chinantec, when decimals must be added, the verb *be over* is used. It distinguishes animacy through nasalization and vowel alternation. For the addition of decimals over a hundred another verb (a synonym of the former) is used, which distinguishes animacy in the same way (Skinner & Skinner 2000: 483).

**Table 48.** The verb ‘be over’ for numbers in Usila Chinantec.

	Over fifty	Over a hundred
Inanimate	$a^3 tsej^{23}$	$ni^2 tsej^1$
Animate	$ra^3 tsain^{23}$	$ni^2 tsain^1$

<sup>69</sup> There seems to be a mistake, as in the examples the words for ‘orange’ and ‘wasp’ are the same. However, the presumable mistake is present both in Palancar (2015: 34-35) and in his source (Anderson 1989: 56-57).

Chinantec, Usila. Otomanguean.

- (99) teun<sup>34</sup>    nia<sup>4</sup>-lon<sup>4</sup>    **ra<sup>3</sup>tsain<sup>23</sup>**    to<sup>4</sup>lo<sup>5</sup>quian<sup>4</sup>    **ni<sup>2</sup>tsain<sup>1</sup>**    quie<sup>4</sup>jñi<sup>4</sup>  
 two    five-twenty    be.over    two.twenty.ten    be.over    twenty.six  
 ‘two hundred and seventy six (animate)’

Finally, as a result of the deletion of the animacy marker *-y* due to the overt realization of the animacy controller, only nasalization, represented with a macron under the vowel, and vowel alternation mark animacy in these verbs of Ozumacin Chinantec (Rupp 2009: 5-6, 13-14).

Chinantec, Ozumacin.

- (100) a. dsa<sup>-</sup>-tøh<sup>+</sup>    wa'-le<sup>+</sup>  
 FUT-fall.INAN    PREF-flower  
 ‘The flower will fall.’
- b. dsa<sup>-</sup>-tāh<sup>+</sup> (<tāh<sup>+</sup>-y)    chih<sup>-</sup>  
 FUT-fall.ANIM    child  
 ‘The child will fall.’

### 9.2.2. *Nasalization + tone*

In examples (101) and (102) from Usila Chinantec, an adjective and a verb respectively undergo a change both in nasalization and tone, in order to mark animacy (Skinner & Skinner 2000: 478, 528).

Chinantec, Usila. Otomanguean.

- (101) a. a<sup>2</sup>ni<sup>2</sup>tag<sup>4</sup>    **hlagh<sup>32</sup>**  
 machete    bad  
 ‘bad machete’
- b. chie<sup>3</sup>    **hlangh<sup>2</sup>**  
 person    bad  
 ‘bad person’
- (102) a. to<sup>34</sup>    jnia<sup>4</sup>  
 roast.INAN    1.SG  
 ‘I roast it (animal).’

- b. **ton**<sup>4</sup>      jnia<sup>4</sup>  
 roast.ANIM 1.SG  
 ‘I roast it (thing).’

### 9.2.3. *Tone + vowel alternation*

It is again the Chinantec from Usila that provides us with evidence of the interaction between vowel alternation and tone in animate agreement. In this case a possessive pronoun is involved (Skinner & Skinner 2000: 472).

Chinantec, Usila. Otomanguean.

- (103) a. a<sup>2</sup>hnei<sup>43</sup> quien<sup>44</sup>  
 house my  
 ‘my house’
- b. a<sup>1</sup>ñi<sup>43</sup> quian<sup>344</sup>  
 pig my  
 ‘my pig’

### 9.2.4. *Tone + vowel alternation + nasalization*

Finally, considering (104) and (105), examples in which all the three morphophonemic techniques come together are possible as well (Skinner & Skinner 2000: 478).

Chinantec, Usila. Otomanguean.

- (104) a. tie<sup>3</sup>  
 white.INAN  
 ‘white (inanimate)’
- b. tion<sup>43</sup>  
 white.ANIM  
 ‘white (animate)’
- (105) a. to<sup>5</sup>chich<sup>32</sup>  
 a.half.of.ANIM  
 ‘a half of (animate)’
- b. to<sup>5</sup>chionh<sup>2</sup>  
 a.half.of.INAN  
 ‘a half of (inanimate)’

### 9.3. Mixed morphological and morphophonemic techniques

In the Chinantecan languages, morphological techniques like those included in §§ 1 and 2 usually act together with the morphophonemic techniques in § 8. Let us consider some of them.

#### 9.3.1. *Alternation + tone*

In this example of a 2nd person singular possessive pronoun in Lealao Chinantec, the difference between the form for inanimate and animate possessed NPs is marked by means of a different form and a tonal mark (Rupp 2009: 7).

**Table 49.** 2nd person singular possessive pronoun in Lealao Chinantec.

Inanimate	<i>y</i>
Animate	<i>u<sup>3</sup></i>

#### 9.3.2. *Alternation + stress + tone*

The instance of a morpheme alternation together with a change in stress and tone comes also from Lealao Chinantec possessive pronouns, and is also provided by Rupp (2009: 7).

**Table 50.** 1st person singular possessive pronoun in Lealao Chinantec.

Inanimate	<i>y</i>
Animate	<i>á<sup>2</sup>, á<sup>4</sup></i>

#### 9.3.3. *Affixation + vowel alternation*

In example (106) from Lealao Chinantec (Rupp 2009: 9), the numeral shows animacy agreement by taking the animacy marker *-y* and undergoing a vowel alternation. The Chinantec of Usila, similarly, provides us with an example in a verb, as can be seen in (107) (Skinner & Skinner 2000: 542).

Chinantec, Lealao. Otomanguean.

- (106) a. *dxíá<sup>4</sup>*      *mí<sup>1</sup>-lí<sup>1</sup>*  
           ten.INAN    CLASS:1-flower  
           ‘ten flowers’

- b. dxié<sup>4</sup>-y      dsii<sup>3</sup>  
 ten-ANIM    dog  
 ‘ten dogs’

Chinantec, Usila. Otomanguean.

- (107) a. quienh<sup>4</sup>  
 land  
 ‘to land/fall (somebody)’
- b. quienh<sup>4</sup>-i<sup>3</sup>  
 land-ANIM  
 ‘to land/fall (something)’

#### 9.3.4. *Affixation + nasalization*

Nasalization is a common device, together with others, in Ozumacin Chinantec (Rupp 2009: 3). In example (108), an adjective agreeing with an animate noun takes the affix *-y* apart from being nasalized (represented by means of the underlining). Example (109) of a verb from Usila Chinantec uses also affixation and nasalization in the animate form (Skinner & Skinner 2000: 541).

Chinantec, Ozumacin. Otomanguean.

- (108) a. llu<sup>4</sup>  
 good.INAN  
 ‘good (inanimate)’
- a. llu-y<sup>4</sup>  
 good-ANIM  
 ‘good (inanimate)’

Chinantec, Usila. Otomanguean.

- (109) a. haih<sup>1</sup>  
 fit.INAN  
 ‘to fit (something)’



- b. hainh<sup>1</sup>-i<sup>3</sup>  
 fit-ANIM  
 ‘to fit (somebody)’

### 9.3.5. *Affixation + stress*

These pairs from Lealao Chinantec show how affixation and stress change from the inanimate to the animate form (Palancar 2015: 48). Compare these with the same verb in the present tense in (111), in which no stress change applies, but there is a change in the tone employed.<sup>70</sup>

Chinantec, Lealao. Otomanguean.

- (110) a. ma<sup>3</sup>-tia<sup>3</sup>  
 PFV-fall.from.height  
 ‘It fell from a height.’
- b. ma<sup>3</sup>-tia<sup>3</sup>-y  
 PFV-fall.from.height-3.SG.ANIM  
 ‘He/She fell from a height.’

### 9.3.6. *Affixation + tone*

Example (111) shows how the affixation of -y comes together with a tone change (Palancar 2015: 48), in a verb in Lealao Chinantec.

Chinantec, Lealao. Otomanguean.

- (111) a. tia<sup>3</sup>  
 fall.from.height  
 ‘It falls from a height.’
- b. tia<sup>4</sup>-y  
 fall.from.height-3.SG.ANIM  
 ‘He/She falls from a height.’

<sup>70</sup> There is a metathesis between the animate marker -y and the glottal that has been omitted.

### 9.3.7. *Affixation + stress + tone*

Adjectives agree in person, number, and animacy with their controller in Lealao Chinantec, by means of a bound pronoun. The 3rd person bound pronoun does not distinguish number, but it is zero-marked when it denotes inanimate entities, and *-y*-marked when animates. Sometimes, the adjective attracts the stress and changes its tone apart from taking this *-y* bound pronoun, as in (112) (Rupp 2009: 10). Other example of this mixed system can be found in the future form of a verb, in (113) (Palancar 2015: 48). As can be seen in (111), this same verb in the present does not have any stress variation.

Chinantec, Lealao. Otomanguan.

- (112) a. ñú<sup>2</sup>      cah<sup>2</sup>  
           house    big.PL.INAN  
           ‘big houses’
- b. güüi<sup>42</sup>    cáh<sup>1</sup>-y  
           squirrel big.PL-ANIM  
           ‘big squirrels’
- (113) a. ʔ<sup>4</sup>-tia<sup>3</sup>  
           FUT-fall.from.height  
           ‘It will fall from a height.’
- b. ma<sup>3</sup>-tia<sup>3</sup>?<sup>4</sup>-y  
           FUT-fall.from.height-3.SG.ANIM  
           ‘He/She will fall from a height.’

### 9.3.8. *Affixation + nasalization + vowel alternation*

In these examples from Ozumacin and Usila Chinantec taken from Rupp (2009: 3) and Skinner & Skinner (2000: 535) respectively, apart from adding the affix *-y* and the nasalization, which are common devices to mark animacy in this language, the vowel has changed its quality.

Chinantec, Ozumacin. Otomanguan.

- (114) a. eeh<sup>-</sup>  
           green.INAN  
           ‘green (inanimate)’

- b. ääyh<sup>-</sup>  
 green.ANIM  
 ‘green (inanimate)’

Chinantec, Usila. Otomanguean.

- (115) a. leg<sup>43</sup>  
 be/have.INAN  
 ‘to be/have (something)’
- b. lang<sup>43</sup>-i<sup>3</sup>  
 be/have-ANIM  
 ‘to fit (somebody)’

### 9.3.9. *Affixation + nasalization + tone*

The preposition in (116) from Usila Chinantec combines affixation with nasalization and a tonal change, to mark animacy (Skinner & Skinner 2000: 547).

Chinantec, Usila. Otomanguean.

- (116) a. je<sup>1</sup>  
 between.INAN  
 ‘between (something)’
- b. jen<sup>2</sup>-i<sup>3</sup>  
 between-ANIM  
 ‘between (somebody)’

### 9.3.10. *Affixation + nasalization + tone + vowel alternation*

Even these four different devices can come together to make an animacy distinction. Here we have an example from Usila Chinantec (Skinner & Skinner 2000: 539).

Chinantec, Usila. Otomanguean.

- (117) a. si<sup>3</sup>hei<sup>4</sup>  
 enter.INAN  
 ‘to enter (something)’

- b. si<sup>3</sup>hain<sup>23</sup>-i<sup>3</sup>  
 enter-ANIM  
 ‘to enter (somebody)’

## 10. SUMMARY AND CONCLUSIONS TO CHAPTER III

In this chapter I have compiled the different morphophonological and suprasegmental techniques an element can undergo to be marked as [+animate] or [+human], since these tend to be more marked as [-animate] or [-human] ones, or at least as marked as them. Techniques like reduplication (§ 4) and subtraction (§ 5) constitute an exception to this procedure since they are employed to encode inanimates.

Two main morphological techniques have been identified, namely, affixation and alternation. In an affixation technique, further features are added together with new morphophonological material; that is to say, this new material carries inherently the overt marking of features lacking in the inanimate form.

This added features can be just that of [+human/animate], or other such as gender, number, or person among others. In the former animacy is just as a semantic feature (animate/inanimate), whereas in the rest it operates as a condition of the overt exponence of these other features.

In contrast to what it has been stated above, there are cases, however, in which affixation does not add any new feature. The cliticization technique of Coatecas Altas in Table 46 illustrates this statement. Human 3rd person pronouns are cliticized but, as their inanimate counterparts are likewise overtly affixed, from an affix to a clitic no feature marking has been added. Similarly, the affixation of the Saxon genitive in English does not add any new information, since inanimates would use a free preposition *to* for the same purpose. In the same way, the affixation of a bound pronoun in Teiwa (cf. (32)) does not entail further feature marking, as this pronoun would also appear with an inanimate controller, albeit in a free way. The same holds for the incorporation technique like that of Southern Tiwa (cf. (33)), in which an element incorporated through affixation would otherwise appear freely with an animate controller. As can be seen, whereas in examples of Coatecas Altas and Teiwa the animate form is morphologically freer than the inanimate one, the instances of English and Tiwa show the opposite pattern.

In affixation, three subsections have been made for both prefixation and suffixation: free elements, clitics, and affixes. Affixation, and especially suffixation, is typologically the

most common technique. However, the border between clitization and affixation is often misleading in the data sources, which may lead us to erroneous interpretations and classifications. Similarly, the border between affixation and alternation is not always clear when grammatical descriptions do not provide a well-defined distinction between morphemes, as I have illustrated with the example of numbers of Sinhala in Table 11.

Coming back to the three subsections within prefixation and affixation, among free elements whose overt realization is related to animacy, we find pronouns, but also more special categories like coordinators, an affective marker in Waorani (cf. (37)), a word allowing case markers to be referred to animate entities in Bengali (cf. (38)), and a special particle meaning ‘following’ in Hupdë (cf. (39)). Clitics are rarely found, and are often plural markers, pronouns, possessives, or case markers. Prefixes and, above all, affixes determined by animacy are rather more abundant and assorted; without going any further, proper animacy markers in my database can only be found as prefixes or suffixes. Other gender markers or classifiers, bound pronouns, case markers, and numerals constitute a significant part of this group, and also rarer instances like the obviative marker of Plains Cree (cf. Table 15).

Apart from affixation, the other main morphological technique is alternation. Unlike in affixation, in this case no morphophonological substance is added, but changed. In the most basic type of alternation, which I have called “pure” (§ 2.1), animacy operates as a semantic feature, i.e., a morpheme has two different forms just to agree in animacy. Number and case markers, verbal roots, and quite often pronouns are among these categories showing pure alternation.

In other instances of alternation, animacy acts as a condition, controlling the overt exponence of features, or changing their values (§ 2.2). Examples of direct/inverse marking, number, and case marking have been provided. Regarding case marking, I have discussed whether it is always an animacy distinction that controls case selection, or if there is actually a matter of different semantic roles that share some properties with animate entities. Animacy may also operate as a condition for gender marking in languages whose gender or classifier system is only partially animacy-based, and I have argued that these cannot be considered pure alternation cases like those in § 2.1.

Among instances of alternation, two different subsections related to syncretism have been identified. In some cases, alternation triggered by animacy causes syncretism (§ 2.3), that is to say, the animate form distinguishes less features or values than the inanimate one.

Among the features affected by syncretisms in the animate paradigm, we have examples of number and case.

The opposite situation, that in which animates make more feature and value distinctions than inanimates, seems to be more common. Among other instances, pronouns whose controller is animate tend to have more number and person distinctions, case marking is in general less syncretic with animates,<sup>71</sup> in Bhojpuri, for instance animates distinguish honorability (cf. Table 29), and the proximate/non-proximate overt distinction is restricted for animates in Baniwa (cf. Table 30). In some cases, sex distinctions are made by animates and remain syncretic with inanimates, yet, as we have seen in the example of Arawak (cf. Table 34), not all sex distinctions are controlled by animacy.

It is possible that more than one alternation pattern described above operates together. Examples from Afar and Nanti, in (68) and (69) respectively, show how alternation can change number and person values and also trigger sex syncretisms. In Marind, changing the value of a gender marker involves the syncretism of the number feature (cf. (70)).

The example of Abui pronouns (cf. Table 13) is especially interesting as animacy plays a role twice: as a condition and as a feature. Animacy conditions the overt realization of a bound pronoun by means of affixation. Moreover, among these affixes there is an animacy-based distinction through alternation.

Besides these main techniques of affixation and alternation, other phenomena, typologically less common, have been identified. Cases in which the overt realization of a free word—neither prefixed nor suffixed—is controlled by animacy, have been addressed in § 3. These can be considered syntactic instead of morphological techniques, since they are not dependent, but always related to the overt exponence of free pronouns, which agree, obviously, with some elements in the sentence, and which appear as bound pronouns in other languages.

Even if techniques described in this chapter take as a reference [+animate/human] referents, phenomena of reduplication (§ 4), and subtraction (§ 5) affect inanimate controllers. Examples of reduplication are scarce, and always affecting inanimate entities. In addition, as I have already pointed out, animates tend to be more marked than inanimates, so I have provided the few examples of the opposite situation, under the ‘subtraction’ label. Apart

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<sup>71</sup> Data of tone in Slovene (cf. Table 45) constitute a counterexample.

from the example of the bound pronoun in Ngalakan (cf. (76)), data from Jemez overt number marking are especially significant (cf. Table 39). This language has an inverse number marker with singular meaning for inanimates, and plural for animates. This example suggests that cases of subtraction could be more common when a feature or value is more canonical for an animate entity than for an inanimate one. If we consider that being singular and being animate implies being more individuate in the terms of Timberlake (1975: 134) or topical for Givón (1976: 152) and Langacker (1991: 308), even from a diachronic point of view (cf. Forchheimer 1953: 12), that would be the reason for marking overtly the inanimates when singular, as long as the [+singular] value is not canonical for them.<sup>72</sup> The last example, from Kuvi (77), in which the dative case takes an additional preposition when added to an inanimate entity, may have to do with the fact that the dative, usually related to the indirect object, is canonically animate.

Animacy controls morpheme order in very few examples (§ 6). In a couple of Tanzanian languages the relative order of bound pronouns within the verb is affected by their relative animacy, and in Movima, only in the cases in which the obviative cross-referencing of an NP is determined by animacy, can it be stated that morpheme-ordering is determined by it (cf. (79)).

The section I have titled ‘Complex techniques’ (§ 7) is miscellaneous. It includes instances in which more than one morphological technique appears respectively in different parts of a phrase or sentence. What all these examples have in common is that they imply a change in the syntactic structure or grammatical category, from an inanimate to an animate referent. Examples include phenomena affecting possession structures in Dyirbal (cf. (80)) and English, examples of dative shift, nominalization in Hupdë (cf. (83)), passivization in Sinhala (cf. (85)), detransitivization in Japanese and other languages (cf. (86)), and the use of periphrastic structures for local marking in Jaru (cf. (87)). In Vafsi the externalization of a bound pronoun changes the morphological structure of the verb (cf. (81)), and in the double plural marking of Akan, two different categories are used in the same NP: a classifier and a proper plural marker (cf. (84)).

Morphophonemic techniques (§ 8) are not morphological. However, they can be combined with these and, furthermore, they are typologically interesting. Almost all the examples come from the Otomanguean languages. In the case of the Chinantecan branch, as a

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<sup>72</sup> For a critique of this statement that associates singularity and animacy, cf. Dixon (1979: 88-89).

consequence of the loss under some specific circumstances of the morpheme *-y*, used for animacy marking, these morphophonemic techniques are in some cases the only device for animacy-distinction.

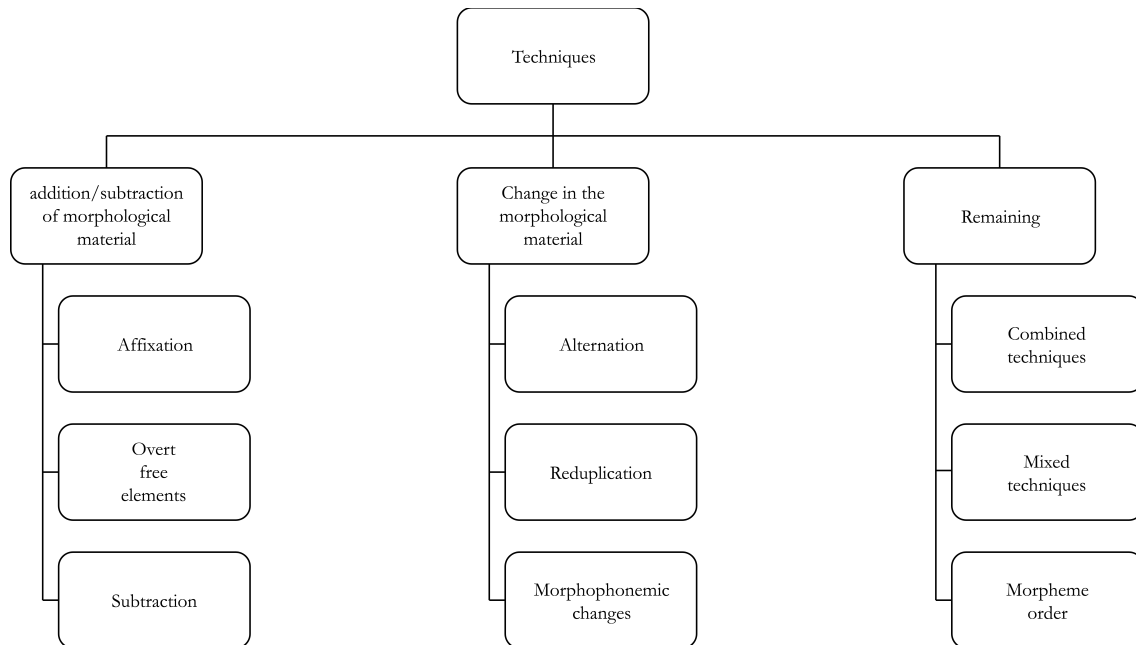
Vowel alternation (§ 8.1) is one of these morphophonemic techniques. These should not be confused with alternation techniques in which a vowel is involved, because examples of vowel alternation, including diphthongization, are the consequence of systematic phonological changes, whereas in alternation techniques the change from one vowel to another is arbitrary. Animacy uses nasalization (§ 8.2) as well, as a strategy to mark the [+animate] value in the Chinantecan languages. Moreover, the example of Palantla Chinantec shows that in contexts in which nasalization is getting lost, animacy distinction acts as a reason to keep it. The Otomanguean languages also have tonal alternations (§ 8.3) to encode animacy. In general, high tones, which are more prominent, are related to animate agreement. The paradigm of case-marking syncretisms related to tone in Slovene is interesting (cf. Table 45), as it constitutes the only example in my database of a morphophonemic technique in which animacy acts as a condition instead of a semantic feature. Instances of stress as a morphophonemic technique are scarce (§ 8.4), and that of Hupdë is dubious. Finally, the only instance of glottalization (§ 8.5) is found far from the Otomanguean family, in Teiwa, a Trans-New Guinean language.

Finally, mixed techniques (§ 9) operate together upon the same morpheme. It is not common that two morphological techniques appear in the same morpheme, although there are some examples (§ 9.1). Mixtures of morphophonemic techniques (§ 9.2), conversely, are very common: interactions between vowel alternation, nasalization, and tone are easily found in the Chinantecan languages. Similarly, in these languages the mixture of morphological and morphophonemic techniques (§ 9.3) is frequent, especially with affixation.

In conclusion, techniques can be classified in two main groups: Those that change the morphophonological shape of a grammatical category, whose main representative is alternation, but can also include reduplication and morphophonemic changes, and those in which morphological material is added or removed, including affixation, the appearance of overt free elements, and subtraction. Complex and mixed techniques can combine both kinds of processes and morpheme ordering is not included in any of these main groups, as there is no change in the morphophonological material.



**Figure 37.** Classification of techniques related to the expression of animacy.





## IV. CATEGORIES

In the previous chapter, I described the techniques in which animacy can be involved. In this part of the dissertation I will classify the grammatical and lexical categories to which these techniques are applied.

Once again, animacy both as a feature and as a condition has been considered together. As summarized at the end of the previous chapter (cf. § III.10), techniques can be classified in two main groups: those that trigger an alternation in the morphophonological material, and those adding or subtracting morphophonological material. The third group may include either of the previous, both, or none of them. This has some implications in this chapter as well. In the cases in which there is a change in the morphophonological material, there is no doubt which is the category affected by animacy: that which suffers the change.<sup>73</sup> For examples in which material is added or lost, however, a decision has had to be made, since two options are available: on the one hand, the classification can be arranged by the categories of the elements added or lost. On the other, the arrangement can be made by taking into account the category to which an affix is added. I have opted for this latter classification system, for two main reasons:

1. The overt realization of an affix implies intrinsically the overt marking of a feature that is lacking for inanimates (cf. § III.10). Thus, these will be equally addressed in chapter § V.
2. Typological results are more interesting and rich in this way, since often an affix whose overt realization is restricted to animate contexts is attached to elements belonging to a wide range of grammatical categories.

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<sup>73</sup> Provided there is a low degree of fusion and morphemes are easily identifiable and segmentable (cf. the example in Table 11).

As a consequence, in my approach, the targets of animacy can be those categories that trigger an alternation (cf. § III.2), and those that undergo reduplication techniques (cf. § III.8) or morphophonemic techniques (cf. § III.8). Equally, following my criteria, the categories that take affixed morphological material (cf. § III.1) or subtract it (cf. § III.5) have been included as targets of animacy. Instances of morpheme order (cf. § III.6) have been classified under the category of the element to which the morphemes that must be ordered are attached. In complex techniques (cf. § III.7) more than one category is often affected, so these might have been included in more than one section. However, they have been avoided in this chapter, as categories involved in these complex techniques are better exemplified by simple techniques in other languages. I have proceeded likewise in cases of mixed morphological and morphophonemic techniques (cf. § III.9.3), as the categories involved therein are already represented by simpler examples. Similarly, categories that are syntactically free (cf. § III.3) have not been included since they are typologically not so significant, and do not trigger any change, or are not attached to any target.

I have identified 18 morphological categories affected by animacy either as a semantic feature or as a condition, some of them having additional subdivisions. It is not always easy defining the grammatical category of a word or morpheme, for three main reasons:

1. Often my bibliographical data sources do not provide enough information to be sure of the grammatical category an element belongs to.
2. Depending on the theoretical approach or the choice of the data source, an element can be categorized in different way.
3. The borderline between some categories is not clear. That is the case in pronouns and determiners, which are, in some cases, homophonous, or for third person pronouns and demonstratives.<sup>74</sup>

When these problems surface, the criteria have been specified at the beginning of each section.

## 1. (BOUND) PRONOUNS

Pronouns can appear in a prosodically and morphologically free environment, or bounded to another element, usually a verb root, showing agreement with an NP present in

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<sup>74</sup> Kashmiri, for instance, uses the same forms for personal pronouns, determiners, and demonstratives (Koul 2003: 912).

the sentence. I have considered them together. Moreover, these free pronouns and their bound counterparts are often etymologically related.

Furthermore, 3rd person pronouns, which are the most interesting for us in terms of animacy because they may not behave like 1st and 2nd pronouns, are often related to demonstratives and employed as determiners. The difference between these etymologically related pronouns and determiners lies in their behavior in regard to their controller. Free pronouns substitute an NP, and bound pronouns agree with an NP that may be present in the sentence. Determiners, on the other hand, modify an NP.

In my data sources, the distinctions between pronouns and demonstrative determiners are not always accurately stated. Consequently, in this section some of the pronouns studied may also be employed as determiners. Likewise, in the next section (§ 2), all the examples are undoubtedly determiners, even if, in some cases, they may also be used as a pronoun.

### 1.1. Personal pronouns

It is easy to find 3rd person personal pronouns making an animacy distinction. This makes a formal distinction lacking in 1st and 2nd person personal pronouns, which are, obviously, always animate. For instance, the paradigms of Grebo, in Table 51 (Corbett 1991: 200), as well as those of Persian (Ortmann 1998: 77) and Dagbani (Siewierska 2004: 104) in Table 52 and Table 53, are clear in this regard.

**Table 51.** 3rd person personal pronoun in Grebo (old system).

	Human	Nonhuman
Sg	<i>ɔ</i>	<i>ɛ</i>
Pl	<i>o</i>	<i>e</i>

**Table 52.** 3rd person personal pronoun in Persian.

	Human	Nonhuman
Sg	<i>u</i>	<i>an</i>
Pl	<i>ifan</i>	<i>anba</i>

**Table 53.** 3rd person pronouns in Dagbani.

	Animate	Inanimate
Sg	<i>o</i>	<i>di</i>
Pl	<i>bɛ</i>	<i>di/ɲa</i>

In the case of Teiwa the animate/inanimate opposition is marked by glottalization in the bound pronoun prefixed to the verbal root (cf. § III.8.5), and it affects only a subset of verbs. In this case the agreement controller is the object. Example (118) shows this opposition by means of glottalization, which has been represented with an apostrophe (Klamer & Kratochvíl 2006: 63).

Teiwa. Trans-New Guinean.

- (118) a. *ga'-wulul*  
 'talk with/tell him/her'
- b. *ga-wulul*  
 'talk about it, tell it'
- c. *ga'-wultag*  
 'talk to/about him/her, tell him/her'
- d. *ga-wultag* (or *gultag*)  
 'talk about it'

As pointed out at the beginning of this section, pronouns agreeing in animacy can be either free or bounded, but whereas in some languages only free or bound pronouns have an animacy split, in other languages, both have it. In the case of Larike-Wakasihu, free pronouns are restricted to humans; therefore, they do not show any animacy-based contrast. On the contrary, bound pronouns have it (Corbett 2000: 21, 123). In Table 54 I reproduce the paradigm of bound pronouns in this language (Laidig 1993: 321).<sup>75</sup> Note that both the subject (prefixes) and the object (suffixes) show verbal agreement, both in the singular and the plural. 1st person distinguishes also inclusive and exclusive plurals. Plural forms are equal for subjects and objects, even if the former are prefixing and the latter, suffixing.

<sup>75</sup> The paradigm is also provided by Siewierska (2004: 90), who also cites Laidig (1993: 321) as a source, but her transcription has several mistakes.

**Table 54.** Bound pronouns in Larike-Wakasihu.

		Subject		Object	
		Sg	Pl	Sg	Pl
1	Inclusive	<i>au-</i>	<i>ami-</i>	<i>-aʔu</i>	<i>ami</i>
	Exclusive	-	<i>ite-</i>	-	<i>-ite</i>
2		<i>a-, ai-</i>	<i>imi-</i>	<i>-ne</i>	<i>-imi</i>
3	Human	<i>ma-, mei-</i>	<i>mati-</i>	<i>-ma</i>	<i>-mati</i>
	Nonhuman	<i>i-</i>	<i>iri-</i>	<i>-a</i>	<i>-ri</i>

On the other hand, the paradigm for 3rd person singular personal pronouns in Hõne, in Table 55 (Storch 2013: 211), shows that in this language, as a consequence of an old gender system, free pronouns agreeing with the subject have a human/nonhuman distinction, as bound pronouns do, which show both subject and object agreement in the verb. As can be seen, they are etymologically related, which is very common across languages. The indirect object does not show the opposition, since it must always be animate.

**Table 55.** 3rd person personal pronouns in the singular in Hõne.

	Subject				Object			Pos- sive
	Free		Verbal prefixes		Direct		Indi- rect	
	Non- emphatic	Emphatic	Neuter	Subject	Affirma- tive	Nega- tive		
Hum	<i>kùù</i>	<i>ákùù</i>	<i>kù-</i>	<i>kù-</i>	<i>kù-</i>	<i>-kó</i>	<i>yáà</i>	<i>-a(a)</i>
Nonhum	<i>kàà</i>	<i>ákàà</i>	<i>kà-</i>	<i>kà-</i>	<i>-kà-</i>	<i>-ké</i>	-	<i>-ka(a)</i>

Akan too has an animate/inanimate distinction in 3rd person singular subject bound pronouns attached to the verbs, but only in the Twi dialects (not in Fante) (Osam 1993/1996: 157-8). These bound pronouns, which originate in the classifier system (Cf. § 3.2), are employed only when the controller subject NP is not overtly mentioned in the sentence. The forms *o-/ɔ-* agree with animates and *e-/ɛ-* with inanimates (Osam 1993/1996: 157-158), as shown in (119). The closely related language Nkami, in (120), follows exactly the same pattern (Asante & Akanlig-Pare 2015: 67-68).

Akan. Niger-Congo.

- (119) a.  $\text{ɔ-bɛ-yera}$   
 3.SG.ANIM-FUT-be.lost  
 ‘S/he will be lost.’

- b.  $\text{ɛ-bɛ-yera}$   
 3.SG.INAN-FUT-be.lost  
 ‘It will be lost.’

Nkami. Niger-Congo.

- (120) a.  $\text{ɔ-bɛ-ba}$   
 3.SG.ANIM-FUT-come  
 ‘S/he will come.’

- b.  $\text{ɛ-bɛ-ba}$   
 3.SG.INAN-FUT-come  
 ‘It will come.’

In some languages there is not a proper 3rd person personal pronoun, and other elements such as demonstratives or alternative constructions are employed. In other cases, only the animate form tends to be a personal pronoun, whereas the inanimate form is actually a demonstrative pronoun. That is the case of Finnish, in which the inanimate 3rd person personal pronouns *se* and *ne* are in fact demonstratives. Cf. Table 56 (Comrie 1989 [1981]: 191). Far from Finnish, the Aymaran language Jaquaru (Table 57) and the Athabascan Slave (Table 58) follow the same rule, as do other languages like Mauwake in Papua, Udihe in Russia (Table 59), Sumi Naga in India (Table 60), and Southern Sierra Miwok in North America (Table 61) (Siewierska 2004: 250).

**Table 56.** 3rd person personal/demonstrative pronoun in Finnish.

	Human	Nonhuman
Sg	<i>hän</i>	<i>se</i>
Pl	<i>he</i>	<i>ne</i>



**Table 57.** 3rd person personal/demonstrative pronoun in Jaquaru.

Third person pronoun		Demonstrative
Animate/Human	Inanimate/Nonhuman	
<i>upa</i>	<i>aka/uka</i>	<i>aka</i> (proximate)/ <i>uka</i> (remote)

**Table 58.** 3rd person personal/demonstrative pronoun in Slave.

Third person pronoun		Demonstrative
Animate/Human	Inanimate/Nonhuman	
<i>?di</i>	<i>?eyi</i>	<i>?eyi</i> (remote)

**Table 59.** 3rd person personal/demonstrative pronoun in Udihe.

Third person pronoun		Demonstrative
Animate/Human	Inanimate/Nonhuman	
<i>nuati/ bueti</i>	<i>ute/ uti/ ti/ tei</i>	<i>ute/ uti/ ti/ tei</i> (remote)

**Table 60.** 3rd person personal/demonstrative pronoun in Sumi Naga.

Third person pronoun		Demonstrative
Animate/Human	Inanimate/Nonhuman	
<i>pa/ li</i>	<i>hi</i>	<i>hi</i> (proximate)

**Table 61.** 3rd person personal/demonstrative pronoun in Southern Sierra Miwok.

Third person pronoun		Demonstrative
Animate/Human	Inanimate/Nonhuman	
<i>?is.ak</i>	<i>?i-?ok/ neb-?ok</i>	<i>nek</i> (proximate)/ <i>?i</i> (remote)

In some cases, the animacy distinction does not cover the 3rd person pronoun completely, but it is restricted to a set of forms. Often animacy is dependent on number; that is to say, not all number values distinguish animacy. As we can see in Table 62, personal pronouns in Barasana-Eduria show this split only in the singular (Jones & Jones 1991: 31), as it is the case with bound pronouns in Movima as well (cf. Table 63) (Haude 2014: 298),

which are related to articles (cf. § 2.1), and with bound pronouns (but not with free ones) in Lealao Chinantec, which are attached to verbs or possessed NPs, among other elements, included in Table 64 (Rupp 2009: 7).<sup>76</sup> However, note that in Lealao Chinantec the subject controls person and number agreement, whereas animacy agreement has to do with the object; as a consequence, the number of the subject affects the animacy agreement of the object.

**Table 62.** 3rd person personal pronouns in Barasana-Eduria.

	Sg	Pl
Animate	Masculine	<i>ĩ</i>
	Feminine	<i>so/sõ</i> <i>ĩ-dã</i>
Inanimate	<i>ti</i>	

**Table 63.** 3rd person bound pronouns in Movima.

		Presential/Generic		Absential/Past	
		Sg	Pl	Sg	Pl
Human	Masculine	<i>u'</i>	<i>i'</i>	<i>us</i>	<i>is</i>
	Feminine	<i>(i)'ne</i>	<i>i'</i>	<i>(i)sne</i>	<i>is</i>
Nonhuman		<i>a'</i>	<i>i'</i>	<i>as</i>	<i>is</i>

<sup>76</sup> Actually in Rupp's approach there is a further 3rd person bound personal pronoun not distinguishing singular and plural, whose form is zero for inanimates and *-y* for animates. Considering that this *-y* is attached to many elements to mark animacy, and that the animate 3rd person bound pronoun in the verb is not always *-y* (see Palancar 2015), both in Palancar's (pers. comm.) and my opinion, it would be more accurate to state that these languages do not have a 3rd person bound pronoun and that *-y* is just an animacy marker.

**Table 64.** Bound pronouns in Lealao Chinantec.

		1		2		
		Pl				
		Sg	Pl		Sg	Pl
			Inclusive	Exclusive		
Inanimate	<i>y</i>	<i>a<sup>2</sup></i>	<i>ab<sup>1</sup></i>	<i>y</i>	<i>ab<sup>3</sup></i>	
Animate	<i>a<sup>2</sup>, a<sup>4</sup></i>	<i>a<sup>2</sup></i>	<i>ab<sup>1</sup></i>	<i>u<sup>3</sup></i>	<i>ab<sup>3</sup></i>	

Although in the previous examples it was the singular that distinguished animacy, it is rather common to find this distinction only in the plural. For example, in languages like Ute-Southern Payute, Wandamen, Katu, and Palauan, only 3rd person plural forms make the distinction (Aikhenvald 2000: 80). At the same time, personal bound pronouns in Fur and object and possessive bound pronouns in Kiribati show the same pattern (Siewierska 2004: 109-110). The examples in Table 65 and Table 66 come respectively from personal pronouns in Southern Dagaare (Siewierska 2004: 109) and emphatic personal pronouns in Usila Chinantec (Skinner & Skinner 2000: 490). In the latter, nonhuman pronouns do not have any number distinction but what is more striking is that the animate plural form for the third person and that for the 1st person plural are syncretic.<sup>77</sup> Maybe *húan<sup>4</sup>* is a secondary form created for plural marking, only employed in the first person, always human, and spread to the third one, but only for animates. The latter example in the group (Table 67), from Blackfoot, shows a bound pronoun that can also be used as an article, with a richer paradigm (cf. § 2.1). When it is a bound pronoun, it is attached to the verb, provided the co-indexed NP does not follow the verb and is not proximate (Russell *et al.* 2012: 70 ff.).

<sup>77</sup> This violates the person hierarchy, which is 1 > 2 > 3, or even 1/2 > 3.

**Table 65.** Free personal pronouns in Southern Dagaare.

	Sg	Pl
1	<i>maa</i>	<i>tenee</i>
2	<i>foo</i>	<i>yenee</i>
3 Human	<i>ono</i>	<i>bana</i>
3 Nonhuman		<i>ana</i>

**Table 66.** Free personal emphatic pronouns in Usila Chinantec.

	Sg	Pl
1	<i>húan<sup>5</sup></i>	<i>húan<sup>4</sup></i>
2		<i>húanb<sup>43</sup></i>
3 Human	<i>hñá<sup>3</sup></i>	<i>húan<sup>4</sup></i>
3 Nonhuman		<i>hñá<sup>3</sup></i>

**Table 67.** Bound pronoun in Blackfoot.

	Sg	Pl
Animate	<i>=áyi</i>	<i>=aiksi</i>
Inanimate		<i>=aistsi</i>

Even in bigger number systems that those distinguishing just singular and plural, it is still the plural that distinguishes animacy more often than other number values. See the paradigm of 3rd person pronoun in Biak, in Table 68, which has been adapted from van den Heuvel (2006: 66). The pattern is the same for the three sets of bound pronouns in the 3rd person (cf. Table 69), and also for articles, which are etymologically related.<sup>78</sup>

<sup>78</sup> There are, however, some striking examples, such as possessive pronouns in Larike-Wakasihu, which distinguish four numbers, namely singular, dual, trial and plural, and have an animacy distinction in both extremes: singular and plural (cf. Table 92).

**Table 68.** 3rd person free pronouns in Biak.

	Singular	Dual	Paucal	Plural
Animate	<i>i</i>	<i>su</i>	<i>skeo</i>	<i>si</i>
Inanimate				<i>na</i>

**Table 69.** 3rd person bound pronouns in Biak.

		Singular	Dual	Paucal	Plural
Set 1	Animate	<i>i-</i>	<i>su-</i>	<i>skeo-</i>	<i>si-</i>
	Inanimate				<i>na-</i>
Set 2	Animate	<i>d-</i>	<i>su-</i>	<i>ske-</i>	<i>s-</i>
	Inanimate				<i>n-</i>
Set 3	Animate	<y>	<i>su-</i>	<i>skeo-</i>	<i>s-</i>
	Inanimate				<i>n-</i>

In the same way, languages such as Telugu and Arawak make a sex-based masculine/everything else division in the singular, but the plural follows an animate/inanimate pattern. Therefore, the feminine is a nonautonomous gender (Corbett 2011). See Table 70 (Corbett 1991: 153) and Table 71 (Aikhenvald 2000: 50). Note, however, that in Arawak there is no number distinction among neuters (i.e., inanimates), since the plural is syncretic with the neuter and feminine singular.<sup>79</sup> Thus, the feminine gender is not an autonomous gender: it behaves like the neuter in the singular, and like the masculine in the plural.

<sup>79</sup> In Arawak, human males are masculine, and everything else, feminine. But there is tendency to make a connection between goodness and the masculine gender, and badness and the feminine one, so non-Arawak males may in some circumstances be considered feminine, and one's own pets, masculine (Aikhenvald 2000: 279).

**Table 70.** 3rd person personal pronouns in Telugu.

	Sg	Pl
Masculine	<i>vaaDu</i>	<i>vaaLLu</i>
Feminine		
Neuter	<i>adi</i>	<i>avi</i>

**Table 71.** 3rd person pronouns in Arawak.

	Sg	Pl
Masculine	<i>li</i>	<i>ne</i>
Feminine		
Neuter	<i>tho</i>	<i>tho</i>

Furthermore, there are languages in which, even if the animacy split is present both in the singular and the plural, the animate/inanimate distinction is clearer in the plural than in the singular, since the latter has further subdivisions. That is the case in the pronoun system in Godié, in Table 72 (Corbett 2000: 186).

**Table 72.** 3rd person personal pronouns in Godié.

	Sg	Pl
Human	<i>ɔ</i>	<i>wa</i>
	<i>ε</i>	
Nonhuman	<i>a</i>	<i>i</i>
	<i>ɔ̃</i>	

As we have seen, animacy alternances restricted just to a value of the category of number are common. However, there are more categories in which animacy affects only one single value.<sup>80</sup> That is the case in the bound pronouns in the singular in Abui (Klamer & Kratochvíl 2006: 64 ff.), given in Table 73. In these, affectedness is important for animacy

<sup>80</sup> For a specificity-dependent animacy distinction, see, for instance, the example of the article in Blackfoot (Table 101).

distinction, since only unaffected direct objects show the split (*bo-* vs. *be-*). As I have already pointed out, animacy operates also in another way in Abui, namely as overt marking: only verbs that can have both animate and inanimate objects take a bound pronoun.

**Table 73.** Singular bound pronouns in Abui.

Inanimate objects only	Animate and inanimate objects		
	Affected	Unaffected	
		Animate	Inanimate
$\emptyset$	<i>ba-</i>	<i>bo-</i>	<i>be-</i>

In the previous examples the animacy distinction was dependent on the values of other features such as number, specificity, and affectedness (value > animacy). Other cases show that, after the animacy split, there are further subdivisions restricted to animates or inanimates (animacy > value). Separating the masculine and feminine sex among animate personal pronouns, for instance, is very common, also in European languages.<sup>81</sup> English distinguishes the masculine *he*, feminine *she*, and inanimate *it*, and Danish human pronouns, illustrated in Table 74 (Corbett 1991: 247), make this distinction as well. Far from Europe, Barasana-Eduria free personal pronouns distinguish masculine and feminine among animates, as we can see in Table 62. This is also true for bound pronouns in this language, used for subject agreement on the verb. The animacy alternation is also present in the plural, as Table 75 demonstrates (Jones & Jones 1991: 73-75). Surprisingly, the inanimate form in the 3rd person is syncretic with the forms for 1st and 2nd person, which are always animate. It seems that from a general *-ba*, animates in the third person have developed a form beginning in *b-*, to which further sex and number distinctions have been added.

**Table 74.** Nominative 3rd person personal pronouns in Danish.

Male human nouns	Female human nouns	Remaining nouns of common gender	Neuter nouns
<i>han</i>	<i>hun</i>	<i>den</i>	<i>det</i>

<sup>81</sup> Provided this sex distinction is semantic, and not arbitrary. In Spanish, for instance, all the substantives must be masculine or feminine irrespective of their animacy.

**Table 75.** Bound pronouns in Barasana-Eduria.<sup>82</sup>

	Animate			Inanimate
	Sg		Pl	
	Masculine	Feminine		
1	<i>-ba</i>	<i>-ba</i>	<i>-ba</i>	<i>-ba</i>
2	<i>-ba</i>	<i>-ba</i>	<i>-ba</i>	<i>-ba</i>
3	<i>-bõ</i>	<i>-bĩ</i>	<i>-bã</i>	<i>-ba</i>

There are, however, distinctions among animates that are not confined to just a sex distinction. Mixtecan languages, for instance, have different sets of pronouns for animates and inanimates. Among animates, internal subdivisions in Diuxi Tilantongo Mixtec are very interesting, as shown in Table 76 (Corbett 1991: 131-131). In this system there is a subdivision that is different depending on the sex of the speaker. Male speakers distinguish sex, and then age, among women. Females, on the other hand, distinguish age, and then sex, among the adults. These distinctions seem to be related to respect for elderly people and males.

**Table 76.** 3rd person animate personal pronouns in Diuxi Tilantongo Mixtec.

		Referent			
		Man	Boy	Girl	Woman
Speaker	Male	<i>meés</i>		<i>meí</i>	<i>meñá</i>
	Female	<i>meté</i>		<i>meí</i>	<i>meñá</i>

Another Mixtecan language, that of San Miguel el Grande, also differentiates two sets of pronouns for animates and inanimates, in the 3rd person. However, the subdivision among animates seems to be more related to an extended version of the Animacy Hierarchy, since there are forms for supernatural entities, humans (with a further sex-based split), and animates. See the singular paradigm in Table 77 (Siewierska 2004: 86).

<sup>82</sup> The realis tense of the reportative uses a different paradigm.



**Table 77.** 3rd person animate singular personal pronouns in San Miguel el Grande Mixtec.

Supernatural	<i>iʔa, ʔza</i>
Human	Masculine <i>caà</i>
	Feminine <i>nāʔā</i>
Animate	<i>kiti</i>

All these examples provided so far show additional subgroups among animates, but it is also possible that inanimates have distinctions not present among animates. The example in Table 78 shows how 3rd person nonhuman pronouns in Swahili agree in gender, usually by reduplication of the classifier the noun takes (Siewierska 2004: 104). Human pronouns do not have any gender marker.

**Table 78.** Classifiers and 3rd person nonhuman pronouns in Swahili.

Noun class	Form
m-	<i>uu</i>
mi-	<i>ii</i>
ki-	<i>kiki</i>
vi-	<i>vivi</i>
ji-	<i>lili</i>
ma-	<i>yaya</i>
n-	<i>ziʔi</i>
u-	<i>uu</i>
ku-	<i>kuku</i>

Talking about subdivisions below a main animate/inanimate distinction, Zapotecan languages cannot be forgotten. It is worth analyzing them as a group. In these languages, 3rd person pronouns, which do not distinguish number, have a main human/nonhuman division, and with further subdivisions among these that may include parameters like age, sex, deity, treatment, deprecatoriness, and marriage. Each Zapotecan language has its own system with specific subdivisions and syncretisms, as has been summarized in Appendix I, which includes all Zapotecan languages that have at least an animate/inanimate distinction

or a human/animate/inanimate one, even if among humans there might be further subdivisions.<sup>83</sup> The main conclusion is that, whatever the subdivisions and syncretisms a Zapotecan language may have, there is never a syncretism between humans, animates, and inanimates.

The case of Abkhaz is interesting. This language employs three different sets of bound pronouns that may be attached to verbs, possessed NPs, or postpositions among other elements (Hewitt 1979). Depending on the element to which they are attached or, in the case of verbs, the function of the agreement controller, one or another set must be used. The system is ergative, since set 1 encodes intransitive subjects and direct objects, set 2 is for indirect objects, postpositions, and possessed NPs, and the latter for transitive subjects (agents). Let us pay attention to the third person pronoun, which has an animacy split. Second and third types (Table 80 and Table 81) are almost equal for the 3rd person, except for the nonhuman singular form (Hewitt 1979: 102-103). Set 1, on the other hand, neutralizes the sex distinction, present in the singular in the remaining sets (plurals are syncretic). Some conclusions can be obtained. First of all, we have an ergative system: set 1 encodes intransitive subjects and direct objects. On the other hand, set 1 is an example of animacy distinction in the singular and not in the plural, whereas the remaining sets keep the distinction in both. At the same time, if we just look at the singular, the human/nonhuman distinction is clearer in the first set, since there is no sex-based split. But in my opinion, these data are interesting since, by simplifying the paradigms, the existence of a morphological reversal related to animacy could be suggested. Let us consider only pronouns *d(ə)*- and *y(ə)*-, the only ones available in the three sets, taking the remaining pronouns as secondary developments or specifications. In this case, *d(ə)*- and *y(ə)*- can be defined as inverse markers of animacy. I have summarized it in Table 82. In this ergative system, the marker *y(ə)*- would be the unmarked one for intransitive subjects and objects, and would encode their natural property, which would be that of being inanimates (or at least less animate than agents). For these intransitive subjects and objects, *d(ə)*- would be the marked, the non-canonical form, encoding humanness. On the other hand, for agents and indirect objects, which are canonically animate, we would have a specular situation, with *y(ə)*- being

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<sup>83</sup> The Zapotec languages included in the table are: Amatlan, Cajonos, Chichicapan, Choapan, Coatecas Altas, Isthmus, Lachixío, Mitla, Ocotlán, Quioquitani-Quieri, San Juan Guelavía, San Vicente Coatlán, Santa Inés Yatzechi, Santa María Quiegolani, Santiago Xanica, Santo Domingo Albarradas, Texmelucan, Tilquiapan, Xanaguía, Yalálag, Yatzachi, and Zoogocho.

again the unmarked form, which would be, in this case, the animate one. Regarding number, the situation is also interesting. The marked form, i.e.  $d(\vartheta)$ -, also has the feature [+number] unlike  $y(\vartheta)$ -, but also in an inverse way. For intransitive subjects and objects  $d(\vartheta)$ - encodes the singular number, since animate elements tend to be more individuated (on the relation between animacy and individuation, cf., for instance, the contributions of Timberlake (1975: 134; 1977: 162), Givón (1976: 152; 1984: 159), Langacker (1991: 307-308), and Fraurud (1996: 79 ff.)). On the contrary, for agents and indirect objects,  $d(\vartheta)$ - encodes inanimates, but is also plural, which is a more marked number value for animate entities.

**Table 79.** 3rd person bound personal pronouns in Abkhaz (1st set).

	Human	Nonhuman
Sg	$d(\vartheta)$ -	$y(\vartheta)$ -
Pl	$y(\vartheta)$ -	

**Table 80.** 3rd person bound personal pronouns in Abkhaz (2nd set).

	Human		Nonhuman
	Masculine	Feminine	
Sg	$y(\vartheta)$ -	$l(\vartheta)$ -	$a$ -
Pl	$y(\vartheta)$ -	$y(\vartheta)$ -	$r(\vartheta)$ -/ $d(\vartheta)$ -

**Table 81.** 3rd person bound personal pronouns in Abkhaz (3rd set).

	Human		Nonhuman
	Masculine	Feminine	
Sg	$y(\vartheta)$ -	$l(\vartheta)$ -	$(n)a$ -
Pl	$y(\vartheta)$ -	$y(\vartheta)$ -	$r(\vartheta)$ -/ $d(\vartheta)$ -

**Table 82.** Proposal of inverse marking in Abkhaz.

	+Animate	-Animate
S, O (Set 1)	<i>d(ə)-</i> (+Sg)	<i>y(ə)-</i>
IO, A (Sets 2 and 3)	<i>y(ə)-</i>	<i>d(ə)-</i> (+Pl)

In the previous examples, the animacy split was always bipartite, i.e. animate/inanimate or human/nonhuman. In Sinhala personal pronouns, as in other Northern Indo-Aryan languages, we can find a tripartite split, namely humans, animates, and inanimates. See Table 83 (Gair 2003: 783). Feminine forms, just available for animates, are employed only when this feature is important: otherwise, the default form (DEFL) is used. Feminine human forms are dialectal or non-respectful. This tripartite split applies also for interrogative pronouns (cf. § 1.5).

**Table 83.** 3rd person personal pronouns in Sinhala.

	Animate						Inanimate	
	Human			Nonhuman			Sg	Pl
	Sg		Pl	Sg		Pl		
	Defl	Fem		Defl	Fem			
1 Prox	<i>meyaa</i>	<i>mææ</i>	<i>meyaala</i>	<i>meeka/muu</i>	<i>meeke</i>	<i>meekeɳɳ / muɳ</i>	<i>meeke</i>	<i>meewa</i>
2 Prox	<i>oyaa</i>	-	<i>oyaala</i>	<i>ooka</i>	<i>ooki</i>	<i>ookuɳ</i>	<i>ookə</i>	<i>oowa</i>
Distal	<i>areya</i>	-	<i>areyala</i>	<i>arəka/aruu</i>	<i>arəki</i>	<i>arəkeɳɳ / aruɳ</i>	<i>arəke</i>	<i>arəwa</i>
Anaph	<i>eyaa</i>	<i>ææ</i>	<i>eyaala</i>	<i>eeka/uu</i>	<i>eeki</i>	<i>eekuɳɳ / uɳ</i>	<i>eekə</i>	<i>eewa</i>

That is the case also for personal pronouns in Swedish (Table 84), which are, obviously, genetically related to those of Danish in Table 74. These examples in Swedish are especially interesting since they are evidence of a diachronic evolution from a system already distinguishing animacy, to another making a narrower human > animate > inanimate distinction. This language had a common masculine/feminine/neuter system in which masculine or feminine gender was restricted to sex-distinguishing animate entities, and neuter to inanimates. However, sex distinction is no longer available for nonhuman animates (i.e. animals), resulting in a four-slot system, with humans still having a sex based distinction (Ortmann 1998: 77).

**Table 84.** Bound pronouns in Swedish

Human		Nonhuman	
Masculine	Feminine	Animate	Inanimate
<i>han</i>	<i>hon</i>	<i>den</i>	<i>det</i>

In the case of Wichí, a language spoken in South America, the implication of animacy is not as clear as in Sinhala or Swedish. In this language, there are four sets of bound pronouns attached to the verb. I provide them (from the variety of Rivadavia) in Table 85 (Terraza 2014: 317). Class IV is used to encode direct objects. Classes II and III encode intransitive subjects with stative verbs and events respectively. Class I can encode subjects of both transitive and intransitive verbs. If we pay attention to 3rd person pronouns, we will realize that there is a polymorphism among class I pronouns. This polymorphism is determined by the semantic features of the agreement controller (Terraza 2014: 315, 319). Let us describe each pronoun (Terraza 2014: 321-322):

- *i-*: It is employed with prototypical agents in prototypical transitive sentences (great agency, volitionality, control and specificity of the agent, great affectedness of the object, and so on). See example (121a).
- *ya-*: Only 5 % of the verbs use this pronoun, which encodes mental or physical activities, and requires a sentient or animate subject. See example (121b).
- *bi-*: About 10 % of verbs use this pronoun, which is related to low volitionality and control of the subject.

Looking at these data, it seems that morpheme selection is related to features such as affectedness, volitionality, control, and specificity, which are typical features of animate entities (cf. Yamamoto 1999: 9-19), but not directly to animacy. However, *i-* is restricted to humans or animates (and some natural forces), but not to inanimates, as long as other markers allow them (Terraza 2014: 326-328), since even with actions in which the agent is especially active and the object especially affected, as in example (121), *i-* is not allowed if the agent is inanimate. As a consequence, *i-* is an exclusive marker for humans or animates.

Wichí. Matacoan.

- (121) a. n-wit'uq      i-lon lus    hayox  
           1.POSS-uncle    3-kill two    jaguar  
           ‘My uncle killed two jaguars.’

- b. noqsas **ya**-quy  
 children 3-play  
 ‘The children are playing.’
- c. ihnwok ya-qonk<sup>ʔ</sup>i n-wet  
 wind 3-destroy 1. POSS-house  
 ‘The wind destroys my house.’

**Table 85.** Bound pronouns in Wichí.

	I Subject/Agent	II Subject (states)	III Subject (events)	IV Object
1 person Sg Exclusive	<i>n-</i>	<i>n-</i>	<i>nt-</i>	<i>-nu</i>
1 person Inclusive	<i>ya-</i>	<i>ya-</i>	<i>yat-</i>	<i>-nam</i>
2 person	<i>la-</i>	<i>a-</i>	<i>lata-</i>	<i>-am</i>
3 person	<i>i-, ya-, hi-, Ø-</i>	<i>Ø-</i>	<i>ta-</i>	<i>Ø-</i>

In the examples studied so far, animacy operated as a semantic feature. However, it can also work as a condition, determining the values of other features present in personal pronouns. In Muna, for instance, there is some optionality for the value of the number feature in the bound pronouns attached to the verb, and the animacy scale seems to be significant. Whereas nouns denoting humans (and pronouns) agree in the singular, inanimates always take plural agreement, as in the examples in (122) (Corbett 2000: 71; 2012: 92-93). Non-human animates show optionality, so it seems that there is a human > animate > inanimate hierarchy, outranked by the type of nominal hierarchy, as free pronouns show always agreement irrespective of animacy.

Muna. Austronesian

- (122) a. bara-hi-no no-hali  
 good-PL-his 3.SG.REAL-expensive  
 ‘His goods are expensive.’
- b. o kadadi-hi no-rato-mo/do-rato-mo  
 ART animal-PL 3.SG.REAL-arrive-PFV/3.PL.REAL-arrive-PFV  
 ‘The animals have arrived.’

The case of Nanti is likewise related to number, but together with the feature of person. This language uses compulsorily possessive bound pronouns with inalienable possessed NPs, which agree with the possessor NP. When the possessor is unidentified, if it is human, 1st person plural agreement is used, whereas with nonhuman ones 3rd person must be employed (Michael 2013: 155). See example (123): in this language, ‘head’ and ‘leaf’ are always inalienable possessives.

Nanti. Maipurean.

- (123) a. a-gito  
           1.PL-head  
           ‘human head/our head’
- b. o-shi  
           3.FEM.SG-leaf  
           ‘a leaf (of a plant. Lit. its leaf)’

Another feature apart from number, namely direct/oblique marking in bound pronouns, can also be at least partially controlled by animacy. In Vafsi, together with animacy, aspects such as the syntactic function of the co-referenced argument, tense, and specificity are important for direct/oblique encoding (Stilo 2004: 279). I have summarized the rules in Figure 38.

Agents are affected by tense, whereas intransitive subjects are always direct-marked. Indirect objects are always oblique. Animacy affects only direct objects and adjuncts, which are marked with the direct when they are not specific and/or animate, and with the oblique in the opposite case. In my opinion, direct marking appears to be the unmarked one, both for subjects and agents, and for direct objects and adjuncts. Direct objects and adjuncts are marked with the oblique case, when they do not fit their canonical features and become more salient or topical, because they are animate or specific (cf. Givón (1976: 152); Foley & Van Valin (1985: 288); Langacker (1991: 306-308)). The canonical form for the indirect object is the oblique, as they are always secondary although they are animate, because they depend on the existence of an agent and a direct object.

**Figure 38.** Patterns for case marking in Vafsi.

	Specific/Animate		Unspecific/Inanimate	
	present DIR	past OBL	present DIR	past OBL
Transitive subject				
Intransitive subject	DIR		DIR	
Indirect object	OBL		OBL	
Direct object	OBL		DIR	
Adjunct	OBL		DIR	

Finally, systems other than those with an animate/inanimate split can also be affected by animacy. In Landoma, personal pronouns agree in gender, but the gender system is not directly animacy-based or semantically assigned. However, although other elements in the sentence, like demonstratives, agree in the corresponding gender with their controller, animacy determines gender agreement in personal pronouns. See in example (124) how these pronouns agree in gender 1, the canonical one for animates, even if their controller belongs to gender 3, provided it is animate (Corbett 1991: 229-230).

Landoma. Niger-Congo.

- (124) a. abil    ηηε,    i-nəŋk    ηi    lɛ  
boat(3) this.3 I-see it.3 FOC  
‘This boat, I have seen it.’
- b. abok    ηηε,    i-nəŋk    kə    lɛ  
snake(3) this.3 I-see it.1 FOC  
‘This snake, I have seen it.’
- c. oteem    uwe, i-nəŋk    kə    lɛ  
old.man(1) this.1 I-see it.1 FOC  
‘This old man, I have seen him.’

## 1.2. Indefinite pronouns

Many Indo-European languages have an animacy distinction in indefinite pronouns. English makes the difference between *nobody/anybody* and *nothing/anything*, as Spanish has *nadie/alguien* for animates and *nada/algo* for inanimates. Basque, which is not Indo-European, has *inor* (eɣ) and *ezer* (eɣ) respectively.



In Nkami, the indefinite pronoun for ‘some/someone’ has a different form depending on the humanness of its controller: *ɔkɔ* is used with human referents and *ɛkɔ* with nonhuman ones, as is shown in (125) (Asante & Akanlig-Pare 2015: 85). The forms for ‘everyone’ and ‘each one’ are built by adding *adzɛ* to *ɔkɔ* and *ɛkɔ*.

Nkami. Niger-Congo.

- (125) a. *ɔkɔ*                    *ba*                    *mɪ*  
           someone.HUM come.PST here  
           ‘Someone came here.’
- b. *ɛkɔ*                    *baale*  
           some.NHUM        be.good  
           ‘Some are good.’

In Bhojpuri, indefinite pronouns have an animacy distinction, but animates also distinguish honorability. Cf. Table 86 (Verma 2003: 527).

**Table 86.** The indefinite pronoun ‘some’ in Bhojpuri.

Inanimate	Animate	
	Honorable	Non-honorable
<i>kucho</i>	<i>kauno</i>	<i>kebu</i> (also oblique)

The pronoun *ngana* in Martuyhunira, only available for humans, can be considered both an interrogative and an indefinite, since it has two meanings: ‘who’ and ‘someone’ (Dench 2013: 128).

In example (126), from Me’phaa, animacy does not play a role as a feature in the indefinite pronoun ‘one’, but as a condition for the overt marking of the features of person and number (Marlett 2012: 3-4). Note that in the first case there is no overt agreement; consequently, the co-referencer of ‘one’ cannot be animate. Conversely, in the second example the pronoun agrees in third person and singular number with its animate controller.

Me’phaa. Otomanguean.

- (126) a. *dígá*        *ᵐbóó*  
           be.EST one  
           ‘There is one (e.g., omelette).’

- b. *ʃtáà*                      <sup>m</sup>*báwī*  
 live.EST.3.SG    one.3.SG  
 ‘There is one (e.g., dog).’

### 1.3. Demonstrative pronouns

Yidiny has two demonstrative pronouns meaning ‘that’, agreeing on animacy (Comrie 1989 [1981]: 41, 191), which include a subdivision between animates. The form *ɲun<sup>h</sup>d<sup>h</sup>u-* is used with highly animate NPs and is obligatory for human NPs. On the other hand, *ɲun<sup>g</sup>u-* is used with lower animate NPs.

Kashmiri uses the same forms for 3rd person personal pronouns, determiners, and demonstratives. However, for demonstratives denoting inanimates, there is an additional form *ti* ‘that (out of sight)’ (Koul 2003: 912).

In Lealao Chinantec, demonstratives change their form and tone, and also take an animacy marker *-y* to encode animacy, but only when they are used like pronouns. A relativizer is employed to build the pronoun. Compare (127a), in which *na<sup>3</sup>* is a demonstrative determiner that does not vary, with (127b) and (127c), in which animacy changes the demonstrative pronoun (Rupp 2009: 11).

Chinantec, Lealao. Otomanguean.

- (127) a. *guaá<sup>2</sup>/dsii<sup>3</sup> na<sup>3</sup>*  
           box/dog    that  
           ‘that box/dog’
- b. *hi<sup>3</sup> na<sup>3</sup>*  
       REL    that.INAN  
       ‘that one’
- c. *hi<sup>3</sup> ni-y<sup>32</sup>*  
       REL    that-ANIM  
       ‘that one’

In the related language Usila Chinantec, however, it seems to be a marker that makes this difference in demonstrative pronouns (cf. Table 128 in § 9).

The Indo-European language Oriya has a human/nonhuman distinction, with two degrees of deixis: distal and proximal, for both human and nonhuman referents. In Table 87 I provide the forms for the singular (Ray 2003: 451).<sup>84</sup>

**Table 87.** 3rd person singular demonstrative pronouns in Oriya.

	Proximal	Distal
Human	<i>je</i>	<i>se</i>
Nonhuman	<i>eṭṭa</i>	<i>seṭṭa</i>

In the Niger-Congo language Nkami we find the same pattern, which is not extended to demonstrative determiners. The paradigm is provided in Table 88 (Asante & Akanlig-Pare 2015: 75-76).

**Table 88.** Demonstrative pronouns in Nkami.

	Proximal	Distal
Animate	<i>ɛna</i>	<i>mo</i>
Inanimate	<i>ɔna</i>	<i>maamo</i>

Compare the forms of proximal demonstratives with those used to encode the subject in the verb (cf. § 1.1) and the indefinite pronouns (cf. § 1.2), which always have *ɛ-* for animates and *ɔ-* for inanimates. Asante & Akanlig-Pare do not identify these forms with the probable existence of an old gender system in which *ɛ-* could be related to animates and *ɔ-* to inanimates. However, the genetically related language Akan shows traces of this system (Osam 1993/1996: 157-158; Asante & Akanlig-Pare 2015: 79 ff.). If that were the case, as in the previously mentioned language Usila Chinantec (cf. also Table 128 in § 9), maybe it would be better analyzing these data in § 9 as gender markers agreeing in animacy, which are attached to these pronouns: it depends on the productivity this gender system still has.

Trió, a language in Brazil, has a rich set of demonstrative pronouns, which include anaphoric and four degrees of proximity, namely proximal, medial, distal, and invisible. Each

<sup>84</sup> Ray (2003: 451) provides these forms together with personal pronouns, but since the deixis differentiation is more common in demonstrative pronouns I have included them in this section. This provides additional evidence of the vague difference between third person personal pronouns and demonstratives.

of them has a collective and a non-collective form: the collective makes reference to all the entities, and the non-collective makes reference to less than all the entities. Animacy is located above all these distinctions, since there are two full sets of pronouns, for animates and inanimates respectively, as shown in Table 89, which has been adapted from Meira (2003: 4). Similar paradigms can be found in other related languages such as Apalaí, Carib, Maquiritari, Hixkaryána, Macushi, E'ñapa Woromaipu, Waiwai, and Wayana (Derbyshire 1999: 54).

**Table 89.** 3rd person pronouns in Trió.

	Animate		Inanimate	
	Non-collective	Collective	Non-collective	Collective
Anaphoric	<i>irë</i>	<i>irëto(mo)</i>	<i>nërë</i>	<i>namo</i>
Proximal	<i>se(ni)</i>	<i>sento(mo)</i>	<i>mëe</i>	<i>mëesa(mo)</i>
	<i>serë</i>	<i>serëto(mo)</i>		
Medial	<i>merë</i>	<i>mërëto(mo)</i>	<i>mëerë</i>	<i>mëëja(mo)</i>
Distal	<i>ooni</i>	<i>oonito(mo)</i>	<i>obkëi</i>	<i>obkëja(mo)</i>
Invisible	<i>më(ni)</i>	<i>mënto(mo)</i>	<i>mëkëi</i>	<i>mëkëja(mo)</i>

In Barasana-Eduria, demonstrative pronouns also have an animacy distinction. However, they have a different morphological structure. Animates use a distance marker, proximate or distal, to which a personal pronoun is added (cf. personal pronouns in Table 62). Animate demonstratives have the paradigm in Table 90 (Jones & Jones 1991: 32). Inanimates, on the other hand, attach a classifier to the distance marker, instead of a pronoun, as can be seen in Table 91 (Jones & Jones 1991: 33), with the classifier *bãi* 'flat, thin'. They have a further medial category. Note that as a consequence of this difference in their morphological structure (determined by animacy), inanimate demonstratives do not mark the features of number and sex, and animates do not mark the gender value encoded by means of the classifier.

**Table 90.** 3rd person animate demonstrative pronouns in Barasana-Eduria.

	Sg		Pl
	Masculine	Feminine	
Proximate	<i>ãdi</i> (< <i>adi-ĩ</i> )	<i>adio</i> (< <i>adi-so</i> )	<i>ãdoa</i> (< <i>ado-ĩdã</i> )
Distal	<i>ĩ</i> (< <i>i-ĩ</i> )	<i>iso</i> (< <i>i-so</i> )	<i>õa</i> (< <i>õ-ĩdã</i> )

**Table 91.** 3rd person inanimate demonstrative pronouns in Barasana-Eduria.

Proximate	<i>adibãi</i> ‘this flat/thin thing’ (< <i>adi-bãi</i> )
Medial	<i>tibãi</i> ‘that flat/thin thing’ (< <i>adi-bãi</i> )
Distal	<i>ibãi</i> ‘this flat/thin thing there’ (< <i>ĩ-bãi</i> )

#### 1.4. Possessive pronouns

Possessive pronouns in Larike-Wakasihū are prefixed to the possessed NP and agree in person (1/2/3) and number (singular/dual/trial/plural) with the possessor NP. The 3rd person has a further animacy (human/nonhuman) split, but only in the singular and plural, as can be seen in Laidig (1993: 320). It seems that the plural form for nonhumans is a reduplication.

**Table 92.** Possessive pronouns in Larike-Wakasihū.

		Singular	Dual	Trial	Plural
1	Exclusive	<i>aku-</i>	<i>aruar-</i>	<i>aridur-</i>	<i>amir-</i>
	Inclusive	-	<i>ituar-</i>	<i>itidur-</i>	<i>iter-</i>
2		<i>amu-</i>	<i>iruar-</i>	<i>iridur-</i>	<i>imir-</i>
3	Human	<i>mana-</i>	<i>matuar-</i>	<i>matidur-</i>	<i>matir-</i>
	Nonhuman	<i>ir-</i>	-	-	<i>irir-</i>

Likewise in Hõne, the possessive pronouns, which are suffixed to the possessed NP, have a human vs. nonhuman distinction, agreeing with the possessor. The form *-a(a)* is used with human possessors and *-ka(a)* is the form for nonhuman ones. Note that the co-referencer of *-ka(a)* in example (128) is a town, which is an inanimate entity (Storch 2013: 211).

Hõne. Niger-Congo.

- (128) d̀ak            í-yak            pínpínù-kaa  
 get.up.IMP    SUBJ.1.PL-go    road.POSS.INAN.3.SG  
 ‘Get up, let’s walk its (=the town’s) road!’

Headless forms in Hõne are built upon the word *bú* or *ábu* ‘thing’ + the possessive suffix agreeing with possessor. The contrast can be seen in (129) (Storch 2013: 211).

Hõne. Niger-Congo.

- (129) a. bú-wa(a)  
 thing-POSS.ANIM.3.SG  
 ‘his/hers’
- b. bú-ka(a)  
 thing-POSS.INAN.3.SG  
 ‘its’

Possessive pronouns and determiners in Usila Chinantec are the same (cf. Table 93) (Skinner & Skinner 2000: 490). As pointed out in § 2.4, only 1st person singular and 3rd person, the latter of which does not distinguish number, have an animacy-based split.

**Table 93.** Possessive determiners/pronouns in Usila Chinantec.

	1 Sg	1 Pl Inclusive	1 Pl Exclusive	2	3
Inanimate	<i>quien</i> <sup>4</sup>	<i>quian</i> <sup>4</sup> , <i>quian</i> <sup>43-1</sup>	<i>quian</i> <sup>4</sup>	<i>quianb</i> <sup>3</sup>	<i>quieb</i> <sup>1</sup>
Animate	<i>quian</i> <sup>34</sup>	<i>quian</i> <sup>4</sup> , <i>quian</i> <sup>43-1</sup>	<i>quian</i> <sup>4</sup>	<i>quianb</i> <sup>3</sup>	<i>quian</i> <sup>1</sup>

### 1.5. Interrogative pronouns

Animacy distinction in interrogatives is also frequent in European languages. English has *who* vs. *what/which*, Spanish distinguishes equally *quién* from *qué/cuál*, Russian has *кто* ‘who’ and *что* ‘which’ (Comrie 1989 [1981]: 191), and Basque has *nor* vs. *zer/zein* as well. According to Whaley (1997: 242), most languages make a difference between human and nonhuman question words.

In the Americas, interrogative pronouns in Lealao and Ozumacin Chinantec make an animacy distinction, as can be seen in example (130) (Rupp 2009: 12). The syntactic construction is also different, since the inanimate sentence uses a relativizer.

Chinantec, Lealao. Otomanguan.

- (130) a.  $he^2$              $ni^3$      $hi^3$      $ni^3$   
           what.INAN    that    REL    that  
           ‘What is that?’
- b.  $hi^2$              $ni^{32-y}$      $ni^3$   
           who.ANIM    that-ANIM    that  
           ‘Who is that?’

This distinction is also present in Usila Chinantec, which has *bain<sup>3</sup>* and *bain<sup>3</sup>chianb<sup>2</sup>* ‘who’ for animates, and *benb<sup>4</sup>* ‘which’ for inanimates (Skinner & Skinner 2000: 494).

Interrogative pronouns in Barasana-Eduria distinguish animacy and sex among animates, as is the case with personal pronouns (Cf. § 1.1). Table 94, provided by Jones & Jones (1991: 31-32), includes some of them.

**Table 94.** Interrogative pronouns in Barasana-Eduria.

	Form	Gloss
Animate	<i>yĩbu, dī</i>	‘who’ (Masc)
	<i>yĩbo, diso</i>	‘who’ (Fem)
	<i>yĩbarā, dōa</i>	‘who’ (Pl)
	<i>yĩbu-bua, dī-bua</i>	‘which one’ (Masc)
	<i>yĩbo-bua, diso-bua</i>	‘which one’ (Fem)
	<i>yĩbarā-bua, dōa-bua</i>	‘which ones’
	<i>dō-kārāko</i>	‘how many’ (Fem)
	<i>dō-kārāku</i>	‘how many’ (Masc, Mixed Masc/Fem)
Inanimate	<i>yě</i>	‘what’
	<i>dō</i>	‘where, when, how, how many’
	<i>dī+CLASS</i>	‘which ones’
	<i>dōkōrō</i>	‘how much, many’
	<i>dō-kārāka+CLASS</i>	‘how many (with countable objects)’

In Hupdë, there are two bases to form interrogatives: *hĩ-* for inanimates, and *ʔũy* for animates. The remaining interrogatives are formed by adding endings to these roots. In Table 95 I provide some of them, adapted from Epps (2008: 160, 287-289). As can be seen, in some cases the interrogatives have both an animate and an inanimate form, since the endings can be attached to both stems.

**Table 95.** Interrogatives in Hupdë.

hĩ- (inanimate)		ʔũy (animate)	
Form	Gloss	Form	Gloss
<i>hĩ-p</i>	‘which’		
<i>hĩ-t</i>	‘where’		
<i>hĩw-ǎn</i>	‘which one (object)?’	<i>ʔũy-ǎn</i>	‘whom’
<i>hĩw-it</i>	‘with which one?’	<i>ʔũy-íh</i>	‘with whom’
<i>hĩ-cóʔ</i>	‘at/to what location?’	<i>ʔũy-cóʔ</i>	‘who’
<i>hĩ-kán</i>	‘in/from what direction?’		
<i>hĩ-n’íh</i>	‘what, what kind?’		
<i>hĩ-ʔǎp</i>	‘how many’		
<i>hĩ-m’cé</i>	‘when, how much’		
		<i>ʔũy-n’íh</i>	‘whose’

The case of Nkami is somewhat different. Interrogatives agree in animacy, but instead of changing their phonological shape as in the previous examples, they take an animacy marker *ba-*. See example (131) (Asante & Akanlig-Pare 2015: 82-83).

Nkami. Niger-Congo.

- (131) *mɪnɪ a-sa ba-amɪnɪ nɪ mɪnɪ-baʔ*  
 2.PL.OBJ PL-person ANIM-how.many FOC 2.PL-come  
 ‘How many of you (people) did come?’

Sinhala distinguishes animacy in interrogative pronouns, but the split is not bipartite (animate/inanimate or human/nonhuman), as in the examples before, but tripartite, since



in this language there are alternative forms for humans, animals, and inanimates, which represent the three main groups in the Animacy Hierarchy (cf. the same situation for personal pronouns in § 1.1). According to Masica (1991: 253), this is common in Northern Indo-Aryan languages, except for Sanskrit. See Table 96 (Gair 2003: 783). Note that the forms for animates and inanimates have the same root, but a different ending.

**Table 96.** Interrogative pronouns in Sinhala.

	Form	Gloss
Human	<i>kawuru/kawu</i>	‘who’
Animate	<i>kooka</i>	‘which one’
	<i>mokaa</i>	‘what one’
Inanimate	<i>kookə</i>	‘which one’
	<i>mookə</i>	‘what one’

Finally, in some instances, interrogative pronouns are not the goals of animacy agreement, but animacy determines the overt agreement of other features in them. In Me’phaa number and person agreement appears overtly in different categories only when the controller is animate. In the examples in (132), from Tlacoapa Me’phaa, an interrogative pronoun shows agreement when its controller is animate, and does not with an inanimate controller (Marlett 2012: 3-4).

Me’phaa. Otomanguean.

(132) a. ngwátaá      gūmā      dígá      náà      méfa  
 how.many   omelette   be.EST   LOC   table  
 ‘How many omelettes are on the table?’

b. ngwátí<sup>n</sup>              fùwáá?      kúwá              gū?wáá  
 how.many.3.PL   dog              be.EST.PL.3.PL   house.LOC  
 ‘How many dogs are in the house?’

## 1.6. Relative pronouns

In the languages of Europe, it is not difficult to find relative pronouns sensitive to animacy distinctions, since they are often related to interrogative pronouns. In English we have a well-known division between *who* and *that*, but apart from that, there is a less known

recently developed phenomenon that is worth mentioning. A new relative pronoun for the subject has been created in spoken English. In this language no animacy distinction is made at this point, with *whose* as the form for both animate and inanimate referents. However, a new form *thats* is spreading (Diane Nelson pers. comm.). Cf. (133). According to Nelson (pers. comm.), this new form is more common with inanimate referents, less common with animals, and barely used with human referents.

English. Indo-European.

- (133) a. the house **thats** roof is damaged.  
 b. the house **whose** roof is damaged.

In the Indo-Aryan branch of Indo-European languages, the system of relative pronouns in Oriya distinguishes humanness and number, as can be seen in Table 97 (Ray 2003: 470).

**Table 97.** Relative pronouns in Oriya.

	Human	Nonhuman
Sg	<i>jie</i>	<i>jeũta</i>
Pl	<i>jeũmane</i>	<i>jeũgudiko</i>

Another Indo-Aryan language from India, Kashmiri, has a relative and correlative pronoun system agreeing sometimes in gender (masculine/feminine), and also in number, case, and animacy (Wali & Koul 1997: 205-206; Koul 2003: 939).

## 2. DETERMINERS

It is common for pronouns and determiners to be equal or etymologically related. However, this is not always like that or, in some cases, animacy affects only the latter. In this section I have included just examples in which pronouns and determiners are not equal, or behave in a different way according to animacy. However, my data sources do not often specify if a set of pronouns can also be used as determiners so, just in case, I have checked that all the examples included in this section can be used as determiners, regardless of whether they can also be pronouns or not.

## 2.1. Articles

In the North and Central dialects of Cappadocian Greek the article is restricted to the accusative case. Animate entities take the masculine article and inanimates always the neuter one (Janse 2004: 5-7), so animacy distinction is marked on the article. See Table 98.

**Table 98.** The article in Cappadocian Greek.

	Sg	Pl
Masculine (Animate)	<i>to(n)</i>	<i>tus</i>
Neuter (Inanimate)	<i>to</i>	<i>ta</i>

Articles in Movima are prefixed to nouns, and sometimes to adjectives and verbs. These determiners, etymologically related to pronouns, distinguish three degrees of presence. If the noun taking the determiner is present, the presential/generic form is used; if absent, the absential one appears, and if the entity no longer exists, the past form has to be employed.<sup>85</sup> As regards animacy, the most interesting fact is that in the singular there is a further animacy/sex distinction, and moreover, that it is made in the singular and not in the plural, which is not common, as can be seen in the paradigm in Table 99 (Haude 2014: 298).

**Table 99.** Articles in Movima.

	Singular			Plural/Mass
	Animate		Inanimate	
	Masculine	Feminine		
Presential/Generic	<i>us</i>	<i>(i)'nes</i>	<i>as</i>	<i>is</i>
Past	<i>us</i>	<i>usnos</i>	<i>os</i>	<i>is</i>
Absential	<i>kus</i>	<i>kinos</i>	<i>kos</i>	<i>kis</i>

Articles in Biak are etymologically related to bound and free pronouns (cf. Table 68 and Table 69). Having a big number system, only plurals distinguish animacy, as can be seen in Table 100 (van den Heuvel 2006: 66).

<sup>85</sup> Note that presential/generic and past forms are syncretic for masculines and plurals.

**Table 100.** Articles in in Biak.

	Singular	Dual	Paucal	Plural
Animate	$\text{=ya/ =i}$	$\text{=su-ya/ su-i}$	$\text{=sko-ya/ sko-i}$	$\text{=s-ya/ s-i}$
Inanimate				$\text{=na}$

In Blackfoot, likewise, there is a morpheme that works both as an article and as a bound pronoun for verbal agreement. When attached to NPs, it seems to behave as an article that distinguishes, first of all, specificity. There is, then, a split between specific and unspecific forms. Only the first group has an animacy distinction, and then a number-based distinction. Finally, singular forms distinguish proximate and obviative forms. In sum, there is a specificity > animacy > number > obviation hierarchy, as shown in Table 101 (Russell *et al.* 2012: 57-58). When it is used as a bound pronoun, specificity and obviation splits are overridden.

**Table 101.** Articles in Blackfoot.

		Proximate	$\text{-wa}$
	Animate	Sg	Obviative
			$\text{-yi}$
Specific		Pl	$\text{-iksi}$
	Inanimate	Sg	$\text{-yi}$
		Pl	$\text{-istsi}$
Unspecific			$\text{-i}$

In Oriya, the determiner employed to mark a singular or non-count noun as definite is  $\text{-ta/ -ti}$  with nonhumans, and  $\text{-ko}$  (usually attached to  $\text{jəno}$  ‘person’) for humans (Ray 2003: 455-456). Moreover,  $\text{-ta/ -ti}$  can be attached to humans to show disrespect or pity.

Oriya. Indo-European.

(134) a.  $\text{bəhi-ṭa}$

book-DEF

‘the book’

- b. *ɖaktər jəŋə-kə*  
 doctor person-DEF  
 ‘the doctor’

## 2.2. Indefinites

Sinhala shows animacy agreement in its indefinite determiner. The marker *-ak* is employed with inanimates (and sometimes feminines), and *-ek* with animates. See example (135) (Masica 1991: 248).

Sinhala. Indo-European.

- (135) a. *potak*  
 book.INDF.INAN  
 ‘a book’
- b. *lamayek*  
 boy.INDF.ANIM  
 ‘a boy’

To mark a singular or non-count noun as indefinite in Oriya, the word for ‘person’ *jəŋə* can become a determiner appearing with humans whereas *gote*, *-te*, *-tie*, and *-tae* are available both for humans and nonhumans (Ray 2003: 455-457).

Oriya. Indo-European.

- (136) a. *jəŋə ɖaktər*  
 one(person) doctor  
 ‘a doctor’
- b. *gote bəhi*  
 one book  
 ‘one book’
- c. *bəhi-ṭe*  
 book-INDF  
 ‘a book’

The indefinite determiner in Me’phaa is interesting, since animacy does not operate as a feature as is usual for determiners, but as condition for the agreement of other features.

This determiner, which is actually the number *one*, shows number and person agreement only when it makes reference to an animate entity (Marlett 2012: 4).

Me'phaa. Otomanguean.

- (137) a. <sup>m</sup>bá      gūmā      mùhmù?  
           INDF omelette    yellow  
           ‘a yellow omelette’
- b. <sup>m</sup>bāā      āhk<sup>w</sup>áā<sup>n</sup>      mùhmì?<sup>n</sup>  
           INDF.3.SG    ant            yellow.3.PL<sup>86</sup>  
           ‘a yellow ant’

### 2.3. Demonstratives

In Me'phaa, the demonstrative determiner can also be used as a pronoun, and agrees in animacy. The example provided by Marlett (2012: 5) comes from Malinaltepec Me'phaa.

Me'phaa. Otomanguean.

- (138) āhngāā      dú?kwè<sup>n</sup>  
           word            MEDIAL.DEM:INAN  
           ‘that word’
- ǰábò      nīkìì      sú?kò  
           person    old      MEDIAL.DEM:ANIM  
           ‘that elderly person’

However, related determiners and pronouns may behave in a different way regarding animacy. That is the case for demonstratives in the Indo-European language Torwali, spoken in Pakistan. Demonstratives in this language have two number distinctions (singular and plural) and three degrees of proximity (proximal, distal, and remote). However, only remote determiners, and not pronouns, make an animacy distinction, as can be seen in the paradigm adapted from Bashir (2003: 866) in Table 102, in which just singular forms have been provided. Remote pronouns and animate determiners are equal, while there is a different form for the inanimate ones. It is not common for inanimates to develop a different form: this is more usual for animates, which tend to be more marked. However, pronouns,

<sup>86</sup> This seems to be a mistake from the data source, since singular agreement is expected.

which are in the origin of these determiners, are canonically animates and located in highest positions of the Animacy Hierarchy (Comrie 1989 [1981]: 278-280; Croft 1990: 130), so in this case, the most differentiated marking corresponds to the inanimate one.

**Table 102.** Singular demonstrative pronouns and determiners in Torwali.

	Proximal	Distal	Remote	
			Animate	Inanimate
Determiner	<i>a</i>	<i>pʷe, paɪyē, pāe</i>	<i>se</i>	<i>te</i>
Pronoun	<i>a</i>	<i>hε, pāe</i>	<i>se</i>	<i>se</i>

Some Chinantecan languages, at least those from Lealao and Usila, have two types of third degree demonstrative determiner: one for entities we can see or are present, and another for absent entities, which distinguish animacy. Table 103 (Skinner & Skinner 2000: 480) includes the demonstrative determiner paradigms in Usila Chinantec. Moreover, examples showing the contrast from Lealao (Rupp 2009: 12) and Usila Chinantec (Skinner & Skinner 2000 480, 486) have been given in (139) and (140) respectively.

**Table 103.** Demonstrative determiners in Usila Chinantec.

Degree	Form
1	<i>la<sup>3</sup></i>
2	<i>ne<sup>3</sup></i>
3 present	<i>jno<sup>3</sup></i>
3 absent	Animate <i>hain<sup>4</sup></i>
	Inanimate <i>jon<sup>3</sup></i>

Chinantec, Lealao. Otomanguean.

(139) a. *guaá<sup>2</sup> ja<sup>3</sup>*

box that.INAN

‘that box (that we do not see)’

b. *dsa<sup>3</sup> hi<sup>3</sup>*

person that.ANIM

‘that person (that we do not see)’

Chinantec, Usila. Otomanguean.

- (140) a. ma<sup>2</sup>ro<sup>3</sup> jon<sup>3</sup>  
 tobacco that.INAN  
 ‘that tobacco’
- b. chie<sup>3</sup> hain<sup>4</sup>  
 person that.ANIM  
 ‘that person’

## 2.4. Possessives

Possessive determiners in Lealao and Ozumacin Chinantec (Rupp 2009: 12-13), used for non-obligatory possession, mark the number and person of the possessor, and the animacy of the possessed. They follow the noun and any qualitative adjective. In the Lealao variety, shown in Table 104 (Rupp 2009: 12-13), this holds for all persons and numbers, except when the possessor is second person singular, whereas in the Chinantec of Ozumacin, in Table 105 (Rupp 2009: 12-13), 1st person plural possessors are excluded from encoding the animacy of the possessed.

**Table 104.** Possessive determiners in Lealao Chinantec.

	1 Sg	1 Pl Inclusive	1 Pl Exclusive	2 Sg	2 Pl	3
Inanimate	<i>chiey<sup>4</sup></i>	<i>chiaa<sup>42</sup>a<sup>2</sup></i>	<i>chiaa<sup>42</sup>ab<sup>1</sup></i>	<i>chiü<sup>2</sup>b<sup>2</sup>ü<sup>3</sup></i>	<i>chiaa<sup>2</sup>ab<sup>3</sup></i>	<i>chiáb<sup>2</sup></i>
Animate	<i>chiaa<sup>2</sup>a<sup>4</sup></i>	<i>chiaa<sup>42</sup>a<sup>2</sup></i>	<i>chiaa<sup>42</sup>ab<sup>1</sup></i>	<i>chiü<sup>2</sup>b<sup>2</sup>ü<sup>3</sup></i>	<i>chiaa<sup>2</sup>ab<sup>3</sup></i>	<i>chiey<sup>2</sup></i>

**Table 105.** Possessive determiners in Ozumacin Chinantec.

	1 Sg	1 Pl Inclusive	1 Pl Exclusive	2 Sg	2 Pl	3
Inanimate	<i>kin<sup>ˀ</sup></i>	<i>jnan<sup>ˀ</sup></i>	<i>kyaa<sup>ˀ</sup>jnaäh<sup>ˀ</sup></i>	<i>kyab<sup>ˀ</sup></i>	<i>kyab<sup>ˀ</sup>hnaäh<sup>ˀ</sup></i>	<i>kiyb<sup>ˀ</sup></i>
Animate	<i>kyaan<sup>ˀ</sup></i>	<i>jnan<sup>ˀ</sup></i>	<i>kyaa<sup>ˀ</sup>jnaäh<sup>ˀ</sup></i>	<i>kyaab<sup>ˀ</sup></i>	<i>kyaab<sup>ˀ</sup>hnaäh<sup>ˀ</sup></i>	<i>kyaa<sup>ˀ</sup></i>

Note that nasalization, expressed by the macron under the vowel, and other not purely morphological techniques are commonly employed to encode animacy in these languages (cf. § III.8), but there are some morphological changes as well. However, in the paradigm of Usila Chinantec in Table 106 (Skinner & Skinner 2000: 490), only non-morphological techniques like vowel alternation, nasalization, and tone are employed, in the 1st person singular and 3rd person.



**Table 106.** Possessive determiners/pronouns in Usila Chinantec.

	1 Sg	1 Pl Inclusive	1 Pl Exclusive	2	3
Inanimate	<i>quien<sup>4</sup></i>	<i>quian<sup>4</sup>, quian<sup>43-1</sup></i>	<i>quian<sup>4</sup></i>	<i>quianb<sup>3</sup></i>	<i>quieb<sup>1</sup></i>
Animate	<i>quian<sup>34</sup></i>	<i>quian<sup>4</sup>, quian<sup>43-1</sup></i>	<i>quian<sup>4</sup></i>	<i>quianb<sup>3</sup></i>	<i>quian<sup>1</sup></i>

## 2.5. Interrogatives

There is an example in my database of an interrogative determiner agreeing in animacy. The examples come from Usila Chinantec, and have been included in Table 107 (Skinner & Skinner 2000: 484).

**Table 107.** Interrogative determiners in Usila Chinantec.

Gloss	Inanimate	Animate
‘how much/many’	<i>jab<sup>4</sup>, bain<sup>3</sup>jab<sup>4</sup></i>	<i>janb<sup>4</sup>, bain<sup>3</sup>janb<sup>4</sup></i>
‘who/what’	<i>henb<sup>4</sup></i>	<i>jain<sup>4</sup></i>

## 3. NOUNS AND NOUN PHRASES

Nouns and noun phrases are animacy controllers, and not targets. However, overt marking of some features by means of affixes attached to them is determined by animacy. Note that in this section only the overt realization of these features in the NP has been studied. Phenomena of alternation in the morphemes that mark these features, or a change in the values of these features controlled by animacy do not affect the NP itself, but just the marker, so in this chapter they have been studied in their own section.

### 3.1. Number markers

The overt realization of number markers in an NP is often animacy-dependent. In the Uto-Aztecan language Hopi, for instance, only animate nouns can take a proper dual marker (Corbett 2000: 169). Hatam, like East Makian, has a clitic plural marker optional for animates, but forbidden for inanimates. Example (141) comes from Haspelmath (2013).

Hatam. Language isolate.

- (141) munggwom(=nya)  
 child/children(=PL)  
 ‘children’

An NP taking overt plural marking only if animate is quite a common phenomenon. It is shown in examples (142), (143) and (144), which belong respectively to Korku (Nagaraja 1999: 31),<sup>87</sup> Tlachichilco Tepehua (Watters 1988: 460-461), and Bengali (Dasgupta 2003: 365). Similar evidence can be found in languages from different areas and families. I will cite just some of them as a sample: Southern Tiwa (Allen, Gardiner, & Frantz 1984: 294, footnote 6), Gitksan (Nichols 1992: 133, 145), K’iche’ (Croft 1990: 112), Nunggubuyu (Nichols 1992: 145, 150), Kharia (Croft 1990: 112), and Karok (Nichols 1992: 133, 145). In East Makian the split takes place between humans and nonhumans, and Tiwi includes higher animates together with humans (Haspelmath 2013), like Kulina (Dienst 2014: 52). In Korean, however, it is optional and definiteness is also important, since definite humans are more likely overtly marked (Corbett 2006: 137-138). There is also optionality for overt marking in Kaytetye and Nigerian Pidgin (probably by influence of Igbo), being more frequent with humans (Corbett 2000: 33-34, 75, 127). In Kannada, it is compulsory for humans and optional for animates (Corbett 2000: 61).

Korku. Austro-Asiatic.

- (142) a. s̥ita  
 dog  
 ‘dog’  
 a’. s̥ita-ku  
 dog-PL  
 ‘dogs’  
 b. da  
 water  
 ‘water’

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<sup>87</sup> In this regard, it is not significant that the inanimate example is uncountable.

b'. \*da-ku  
 water-PL  
 'waters'

Tepehua, Tlachichilco. Totonacan.

(143) a. capul  
 snake  
 'snake(s)'

a'. capul-in  
 snake-PL  
 'snakes'

b. ma:ti:  
 door  
 'door(s)'

b'. \*ma:ti:-n  
 door-PL  
 'doors'

Bengali. Indo-European.

(144) a. mohilā  
 woman  
 'woman'

b. mohilā-rā  
 woman-PL  
 'women'

In Mandarin Chinese there is a plural/collective marker *-men* postposed to NPs (to pronouns, proper names, and nouns) that it is only used with animate (definite) entities (Niu 2015). See example (145).

Chinese, Mandarin. Sino-Tibetan.

(145) Wo   qu    zhao haizi-men  
 I     go    find child-PL  
 'I will go and find the children.'

The reconstruction proposed for Proto-Uto-Aztecan implies the full Animacy Hierarchy, namely humans, animates, and inanimates. The latter are not overtly marked for plural. Humans employ reduplication for plural marking, and animates a suffix (Corbett 2000: 77-78).

Jamamadí (Corbett 2000: 273-274) postpones a free 3rd person pronoun to animate nouns exclusively, to mark plural number, as can be seen in example (146).

Jamamadí. Arauan.

- (146) a. jomee tafa-ka  
           dog eat-DECL.MASC  
           ‘The dog is eating.’
- b. jomee mee tafa-ke  
           dog 3.PL eat-DECL.FEM  
           ‘The dogs are eating.’

The last example deals with a plural marker that does not affect a noun, but a nominalization. In Borôro, nominalizations ending in *-mî* or *-epa* take the pluralizer *-ge*, if they denote humans (Rodrigues 1999: 183). See an example in (147).

Borôro. Bororoan.

- (147) a. uturewî  
           the.one.who.went  
           ‘the one who went’
- b. uturewî-ge  
           the.one.who.went-PL  
           ‘the ones who went’

### 3.2. Gender markers

Like number, gender can be also affected. In Bhojpuri, only animate nouns can have sex-based gender distinctions by means of derivational suffixes (Verma 2003: 525): cf. *dādā* ‘grandfather’ ~ *dādi* ‘grandmother’.

Akan has a prefixing classifier system in decay, but kept often in the plural more than in the singular, since the classifier also marks number. Some nouns have lost the classifier both in the singular and plural but, according to Osam (1993/1996: 155), animate nouns keep it in the plural more than inanimate ones. See examples (148) and (149) respectively.

Simultaneously, Nkami, a language genetically related to Akan, shows that most of the nouns that no longer have a classifier are nonhuman animate nouns, i.e. animals, but human denoting nouns have their classifiers, with the exception of some loanwords from Akan (Asante & Akanlig-Pare 2015: 81).

Akan. Niger-Congo.

(148) a. prako

pig

‘pig’

b. m-prako

CLASS.PL-pig

‘pigs’

(149) kuntu

blanket

‘blanket/blankets’

### 3.3. Case markers

Case, which is usually marked in the NP, is also affected by the animacy of the NP to which it is attached. Many examples could be provided here, but I will give a short sample.

Typically, only animate NPs that are direct objects take an overt case marker, which is in some cases the same for the dative marker. That is the case in Chamling (Kittilä 2005: 506; 2008: 245-246) and Gujarati, as pointed out already in § III.1.2.3 (cf. examples (49) and (50)). In this latter Indo-European language, only animate nouns in direct object function take the *-ne* marker, which is also employed for goals that are not place names (Kittilä 2008: 255-256). See example (150).

Gujarati. Indo-European.

(150) sikshak-e      vidarthi-ne      pustak                      mokl-y-un

teacher-ERG    student-DAT    book.NEUT.SG    send-PST.PFV-NEUT.SG

‘The teacher sent a/the book to the student.’

As indicated in § III.1.2.2, in Awa Cuaiquer (Aikhenvald 2013: 12, 19-20), a possessor NP takes the genitive when it is human; otherwise, possessor and possessed are juxtaposed, as is shown in example (151). The situation is similar in the completely unrelated Australian language Yidiny. This language has two options to encode possession. One marks the pos-

essor NP with the genitive, and the other leaves it unmarked (Comrie 1989 [1981]: 41). Both are always available, but the former is more likely used with highly animate possessors and the latter with lower animates. See example (152).

Awa-Cuaiquer. Barbacoan.

(151) a. Santos=*pa*    *pimpul*  
          Santos=*GEN*   *leg*  
          ‘Santos’ leg’

b. *kwizha*   *pimpul*  
      *dog*     *leg*  
      ‘dog’s leg’

Yidiny. Australian.

(152) a. *ɲad<sup>ɲ</sup>in*     *dungu*  
          1.SG.GEN   *head*  
          ‘my head’

b. *ɲayu*   *dungu*  
      1.SG   *head*  
      ‘my head (lit. I head)’

There are some special examples in which a noun or NP is not affected by its own animacy, but by the animacy of another entity. In the Indonesian language Bauzi, with a canonical SOV word order, no case marking is made; but with a non-canonical word order, if the direct object is animate, the agent NP is overtly marked with the ergative (Foley 2000: 374-375). Similarly, in the Kope dialect of Kiwai (Kittilä 2005: 506), the agent NP is overtly marked when the object NP is animate (cf. example (153)). As can be seen in example (154), Dyirbal employs a verbless construction for predicative possession. The possessor NP takes a comitative case only if the possessed NP is nonhuman. Otherwise, the possessor receives the possessive case, leaving the possessed NP in its bare form.

Kiwai. Trans-New Guinean.

(153) a. *nuu*   *pei*        =*o*-*maaka*  
          3.SG   *canoe*   *make-NRPST*  
          ‘He made a canoe.’

- b. nu-ro        tiramu    ea=a-maaka  
 3.SG-SUBJ    Tiramu    see-NRPST  
 ‘He saw Tiramu.’

Dyirbal. Australian.

- (154) a. ŋaygu        baŋgay bulayi  
 1.SG.POSS    spear    two  
 ‘I have two spears (lit. my spears are two).’

- b. giñan        baŋgay    jambun-ba  
 this.FEM    spear    grub-COM  
 ‘This spear has a grub impaled on its end (lit. is with grub).’

Apart from examples of overt marking, there can be structural changes affecting case marking and the NP that should receive it, as in the example of Dyirbal above. For instance, some locative cases cannot be attached to an animate NP and, thus, must use alternative constructions. That is the case, for instance, for Cora (Kittilä, Västi, & Ylikoski, 2011: 13). This language leaves the NP unmarked if animate, and attaches the local case to a pronoun, as shown in example (155).

Cora, El Nayar. Uto-Aztecan.

- (155) a. haitiri-hap<sup>w</sup>a  
 clouds-on  
 ‘above the clouds’
- b. wa-hap<sup>w</sup>a    <sup>?</sup>u-huci-m<sup>w</sup>a  
 them-on    their-younger.brother-PL  
 ‘on their younger brothers’

Another similar example comes from Bengali. Animate NPs also remain unmarked, since locative cases are attached to a preposition *gā* that, apart from this grammatical function, also has the meaning of ‘body’. Examples in (156), provided by Dasgupta (2003: 364), show clearly the contrast, since *pātro* means both ‘bowl’ (inanimate) and ‘bridegroom’ (animate). The postposition *gā* forces the animate NP to be marked with the genitive (cf. footnote 53).

Bengali. Indo-European.

(156) a. pātre            dhulā            lāgibe  
           bowl.LOC    dust.NOM    will.fall  
           ‘Dust will fall on the bowl.’

b. pātrēr                gāye                dhulā            lāgibe  
           bridegroom.GEN    body.LOC            dust.NOM    will.fall  
           ‘Dust will fall (lit. on the body of) the potential bridegroom.’

Kuvi provides our last example, which shows a pattern also present in Basque (own knowledge). The locative case is not added to the animate NP, but to a postposition.<sup>88</sup> As is shown in (157) (Kittilä, Västi, & Ylikoski 2011: 20), the animate NP must be declined in the genitive, as happens in Bengali and, optionally, in Basque (cf. (158)).

Kuvi. Dravidian.

(157) a. ilut-a  
           house-LOC  
           ‘in the house’

b. āyani                taṅ-a  
           woman-GEN        POST-LOC  
           ‘at the woman’s place’

Basque. Language isolate.

(158) a. Iran-dik  
           Iran-ABL  
           ‘from Iran’

b. lagun-a(-ren)-gan-dik  
           friend-ART-GEN-ANIM-ABL  
           ‘from a/the friend’

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<sup>88</sup> The same happens with the dative, but in the opposite way: the case is attached to a postposition when the NP is inanimate.



### 3.4. Bound pronouns

In Guguyimidjir, a language from Queensland, animate NPs include a pronoun in initial position (Haviland 1979: 101-4), as I show in (159).

Guguyimidjir. Pama-Nyungan.

- (159) nyulu    bidha-al        warrbi    dumbi  
           3.SG    child-ERG        axe        break.PST  
           ‘The child broke the axe.’

As in Guguyimidjir, in Hupdë some nouns are bound nouns, and they must be modified by a preceding nominal (pronoun, noun, demonstrative, numeral, or relative clause) (Epps 2008: 158-159, 232). Human denoting generic nouns, with the exception of the word for ‘infant’ and, surprisingly, that for ‘human, person’, but not animal nouns, are always bound nouns, so they must be attached to another noun (Epps 2008: 158-159). Usually, human denoting bound nouns are attached to the 3rd person singular pronoun, as in (160), or to other nouns specifying the bound noun (Epps 2008: 238-239). Some bound nouns are not bound nouns in the plural (Epps 2008: 195). Similarly, in Kalam a pronoun agreeing in person and number follows the direct object NP if it is animate (Pawley 2006: 88). And in Nkami, a 3rd person possessive pronoun (*m(o)* in the singular and *am(o)* in the plural) is postposed to the possessor, or it can replace it, when it is animate; otherwise no possessive pronoun is added. Compare (161a) to (161a’), and (161b) to (161b’) (Asante & Akanlig-Pare 2015: 70).

Hupdë. Puinavean.

- (160) **tih**=dó?=mæh=d’əh=mah...    hid    ʔəh-yíʔ-ih  
           **3.SG**=child=DIM=PL=REV    3.PL    sleep-TEL-DECL  
           ‘The little children, it’s said, they went to sleep.’

Nkami. Niger-Congo

- (161) a. oyebi    amo    mo    yu    le-waa    efi  
           child    DET    POSS    body    PFV-wear    dirty  
           ‘The child (lit. the child’s body) is dirty.’  
       a’. adaka    amo    yu    le-waa    efi  
           box    DET    body    PFV-wear    dirty  
           ‘The box (lit. the body of the box) is dirty.’

- b. mo yo lɛ-waa efi  
 POSS body PFV-wear dirty  
 ‘She/he (lit. her/his body) is dirty.’
- b’. eyo lɛ-waa efi  
 body PFV-wear dirty  
 ‘She/he (lit. her/his body) is dirty.’

As shown in the previous example, it is especially common for NPs to take bound pronouns in possessive constructions. In Moskona, these show the same pattern as in Hupdë (Gravelle 2013: 94-95). A bound pronoun (cf. Table 108) is also prefixed to the possessed NP, showing agreement with the possessor, if the latter is human (Gravelle 2013: 94). Furthermore, in Mussau-Emira, an Austronesian language, possessed NPs take possessive pronouns in inalienable possession constructions only when the possessor is human. Otherwise, an associative preposition preceding the possessor must be used, as can be seen in example (163), taken from Aikhenvald (2013: 12). Note that in these cases, it is the animacy of other NP that conditions the possessed NP to be marked with this bound pronoun. See examples in (162).

**Table 108.** Bound pronouns for possessive constructions in Moskona.

	Sg	Du	Pl
1	<i>di-</i>		<i>mi-</i>
2	<i>bi-</i>	<i>y-</i>	<i>Yi-</i>
3	$\emptyset$ -		<i>i-</i>

Moskona. East Bird’s Head-Sentani.

- (162) a. i-osnok      **i-ebirorha**  
 3.PL-person    3.PL-skull  
 ‘people’s skulls’
- b. mes    **owoka**    Masur      dokun    Masik  
 dog    name    sandfly      and      mosquito  
 ‘The dog’s names were Sandfly and Mosquito.’

Mussau-Emira. Austronesian.

- (163) a. natu-ra ateva      Kealo  
           child-3.SG.POSS    Kealo  
           ‘Kealo’s child’
- b. laa            ng-ai  
           branch    ASSOC-tree  
           ‘branch of a tree’

Moreover, note in the example in (164) that the pronouns provided in Table 108 (Gravelle 2013: 94) can also be attached to nouns denoting humans (like ‘person’), to indicate the person and number of the referent.<sup>89</sup> When the possessed NP in an alienable possession is human,<sup>90</sup> since it already has a prefix agreeing with himself (as was the case in (162a)), the agreement with the possessor is made through a free pronoun, as can be seen in example (164).

Moskona. East Bird’s Head-Sentani.

- (164) misi            ofon    i-osnok  
           bandicoot    his/her    3.PL-person  
           ‘the bandicoot’s people (anthropomorphically meaning: the clansmen of the bandicoot)’

Possession in Nêlêmwa-Nixumwak is complex. Whereas some possession pronouns and possession linkers distinguish animacy (see § 11.1), in other cases it is overt marking of the bound pronoun in the NP that is determined by animacy.

Some bound and free nouns use an adposition to mark possession with (specific) animates, or may employ a bound pronoun, like those included in Table 109 (Bril 2013: 67). Inanimates and nonspecific humans have a suffix *-t*.

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<sup>89</sup> These prefixes have further functions other than agreeing with the possessor. They index subjects and agents in verbs, and they appear in verbal adjectives, quantifiers, or verbal specifiers within the NP.

<sup>90</sup> Inalienable human referent possessed NPs, like kin-terms, have another structure.

**Table 109.** Possessive pronouns in Nêlêmwa-Nixumwak.

	1 Sg	2 Sg	3 Sg	1 Du Incl	1 Du Excl	1 Pl Incl	1 Pl Excl	2 Du	2 Pl	3 Du	3
Direct possession	<i>-ny</i>	<i>-m</i>	<i>-n</i>	<i>-(h)i</i>	<i>-man</i>	<i>-há</i>	<i>-ba</i>	<i>-mon</i>	<i>-wa</i>	<i>-(h)li</i>	<i>-(h)la</i>
Indirect possession	<i>i na</i>	<i>i yo</i>	<i>i ye</i>	<i>i (h)i</i>	<i>i man</i>	<i>i há</i>	<i>i va</i>	<i>i mon</i>	<i>i wa</i>	<i>i (h)li</i>	<i>i(h)la</i>

Rules have been summarized in Table 110 (Bril 2013: 73). As can be seen, NPs may take different elements apart from pronouns, depending on the type of noun, determination, type of possession, and animacy.

There is a special case in Nkami possessive constructions. In this case the NP does not take a pronoun depending on animacy, but this pronoun substitutes the NP itself. There is a pronoun *kɛ* that agrees with the possessed NP. However, only nonhuman possessed nouns can be replaced by this pronoun. See example (165) (Asante & Akanlig-Pare 2015: 84-85).

Nkami. Niger-Congo.

- (165) a. mɪ        obu/bi        nɪ  
           1.POSS    house/child    is.this  
           ‘This is my house/child.’
- b. mɪ        kɛ        nɪ  
           1.POSS    PRO.ANIM    is.this  
           ‘This is mine (house/\*child).’

**Table 110.** Rules for possessive constructions in Nélêmwa-Nixumwak.

Nominal categories	Determination	Morphosyntactic devices	Type of possessor or determiner	Semantic correlates
Bound nouns	Direct	possessive pronoun	<b>humans</b>	Inherent ownership
		nominal adposition (no marking)	<b>specific animates</b>	inherent relations (part-whole, hyponym)
	construct suffix	suffix <i>-t</i> + nominal adposition	<b>nonspecific animates; inanimates</b>	inherent relations (part-whole, hyponym)
Free nouns 1	direct	possessive pronoun	<b>humans</b>	Inherent ownership
		nominal adposition (no marking)	<b>animates</b>	
Free nouns 2	semi-direct	phonic change before possessive determination	<b>humans</b>	Inherent ownership
			<b>animates; inanimates</b>	inherent relations
Free nouns 3	indirect linker	linker <i>i</i>	<b>specific humans</b>	Alienable, transient ownership
Free nouns 3	indirect linker	linker <i>o</i>	<b>nonspecific animates; inanimates</b>	contingent, transient relation
All free nouns	construct suffix	suffix <i>-a</i>	<b>mostly inanimates</b>	inherent relations (part-whole, hyponym)
All noun types	construct marker	nasalization	<b>inanimates</b>	part-whole, associative, hyponym

### 3.5. Coordinators

Another element that can be added to an NP depending on its animacy is a coordinator. As pointed out also in § III.1.2.1, Takia (Ross 2002: 228), a language from Papua New Guinea, postposes a coordinator to the NPs, if these are animate. Otherwise, NPs are simply juxtaposed.

Takia. Austronesian.

- (166) a. Meit Kabun da  
 Meit Kabun COM  
 ‘Meit and Kabun’
- b. mau dabel fud  
 taro yam banana  
 ‘taro, yam and banana’

### 3.6. Affective markers

Waorani introduces an affective marker after a human or (big or domestic) animate NP in an object function (Peeke 1994: 269), which comes from the stative participle of the verb ‘to be’, inflected for the person and number of the object, as can be seen in example (167).

Waorani. Language isolate.

- (167) bitō tōdīya-da ĩ-da-te a pe-bi-i  
 your sibling-3.DU be-3.DU-ing shout call-2.SG-PST-IG  
 ‘Are you calling out to your two brothers?’

## 4. ADJECTIVES

Adjectives are a part of the Noun Phrase and, for some purposes, techniques affecting nouns affect adjectives in the same way. However, animacy agreement, which is possible for adjectives, is not possible for nouns, since these are the controllers of this agreement. Let us provide some examples in which animacy appears as a semantic feature. The Arakan language Terêna shows an animate/inanimate distinction in adjectives (Aikhenvald 1999a: 84). In the Chinantecan languages from Lealao and Ozumacin, some adjectives make an animacy-based distinction. While predicative adjectives take a bound pronoun agreeing in animacy, attributives take a *-y* morpheme when their controller is animate. The attachment of this *-y* can trigger other suprasegmental changes. In the examples gathered from Lealao Chinantec in Table 111 (Rupp 2009: 3), no suprasegmental change can be found, but in the examples in (168), the animate adjective changes its stress and tone.

**Table 111.** Adjectives in Lealao Chinantec.

Gloss	Inanimate	Animate
‘green’	<i>reeb<sup>3</sup></i>	<i>reeyb<sup>3</sup></i>
‘red’	<i>yuú<sup>3</sup></i>	<i>yuúy<sup>3</sup></i>
‘good’	<i>dxú<sup>4</sup></i>	<i>dxúy<sup>4</sup></i>

Chinantec, Lealao. Otomanguean.

- (168) a. *ñú<sup>2</sup> cah<sup>2</sup>*  
house big.PL.INAN  
‘big houses’
- b. *güü<sup>42</sup> cáh<sup>1</sup>-y*  
squirrel big.PL-ANIM  
‘big squirrels’

In Ozumacin Chinantec, otherwise, nasalization is also necessary. The macron under the vowel in Table 112 represents this nasalization (Rupp 2009: 3).

**Table 112.** Adjectives in Ozumacin Chinantec.

Gloss	Inanimate	Animate
‘green’	<i>eeb<sup>-</sup></i>	<i>ääyb<sup>-</sup></i>
‘red’	<i>gyuu<sup>˘</sup></i>	<i>gyuuy<sup>˘</sup></i>
‘good’	<i>llu<sup>˘</sup></i>	<i>lluuy<sup>˘</sup></i>

Moreover, in Ozumacin Chinantec, as is shown in (169), the morpheme *-y* is deleted from the adjective when the controller of animacy agreement is present, provided the adjective is not predicative. In these latter cases the morpheme remains (Rupp 2009: 9-10).

Chinantec, Ozumacin. Otomanguean.

- (169) a. *chih<sup>-</sup> jøøh<sup>˘</sup>* (< *jøøh<sup>˘</sup>-y*)  
child big.ANIM  
‘big child’

- b. jəʔh'-y      chih<sup>ˀ</sup>  
 big-ANIM    child  
 'The child is big.'

In the examples above, animacy operates as a feature (AnimF). However, there are also instances in which animacy is the condition (AnimC) for overt agreement of other features in the adjective.

In the variety of Arabic spoken in Cairo, gender agreement is sex-based in the singular, but in the plural, even if there is no gender agreement, a default feminine singular gender can be assigned (Corbett 2000: 207-210). Using the generic plural marker or the feminine singular depends on animacy, with human nouns being the more keen to use the plural, then the animate entities, and finally the inanimate ones, and this agreement is present on the adjectives, as is shown in example (170) (Corbett 2000: 209).

Arabic, Egyptian Spoken. Afro-Asiatic.

- (170) riggaala      kuwayyis-inn/kuwayyis-a  
 man.PL      nice-PL/nice-FEM.SG  
 'nice men'

Similarly, in Georgian predicative adjectives have number agreement only when they refer to a human (Ortmann 1998: 79) and in Me'phaa both calificative and predicate adjectives show number and person agreement depending on animacy (Marlett 2012: 4).

Me'phaa. Otomanguean.

- (171) a. <sup>m</sup>bá      ísí      skūnī?  
 INDF    stone    black  
 'A black stone'
- a'. <sup>m</sup>bāā      fùhkú?      skūnī?  
 INDF.3.SG    animal      black.3.SG  
 'A black animal'
- b. pú      miʔsí gūmā      dígi  
 INTNS    tasty omelette    INAN:PROX  
 'This omelette is quite tasty.'



bʔ. pú      miʔsú      wàhɪʔ      biɣi  
 INTNS    tasty.3.SG    rabbit    ANIM:PROX  
 ‘This rabbit is quite tasty.’

## 5. NUMBER MARKERS, NUMERALS, AND QUANTIFIERS

### 5.1. Number markers

In the variety of Persian spoken in Iran, plural markers in the noun are different depending on the animacy of the noun, as can be seen in example (172) (Sedighi 2005: 3).<sup>91</sup> Other Indo-European languages like Magahi or Bhojpuri, and also Breton, show the same contrast. In Bhojpuri, *sab* is employed with human entities (and pronouns), and *log* is available for the remaining ones (Verma 2003: 525), and among the ways for encoding the plural in Bengali, adding *-ra* is restricted to animate nouns (Thompson 2012: 61). In Breton (cf. example (173)), there is a plural marker almost restricted to humans (Ortmann 1998: 76).

Persian. Indo-European.

(172) a. mæn doxtær-**an** ra did-æm  
 I girl-PL ACC saw-1.SG  
 ‘I saw the girls.’

b. mæn ketab-**ha** ra did-æm  
 I girl-PL ACC saw-1.SG  
 ‘I saw the books.’

Breton. Indo-European.

(173) a. bag-**où**  
 boat-PL  
 ‘boats’

<sup>91</sup> This distinction is violated in Modern Persian, and animate DPs may take *-ha* as the plural marker, but inanimate DPs cannot appear with *-an* in plural form (Sedighi 2005: 3).

- b. paotr-**ed**  
 boy-PL  
 ‘boys’

In the same way, in the Eastern Huastec variant of Nahuatl, the plural marker on nouns changes depending on the animacy of the noun. Humans and animates use *-meh*, and inanimates *-tinib*, as shown in Table 113 (Corbett 2000: 77-78).

**Table 113.** Plural marking in Eastern Huastec Nahuatl.

	Sg	Pl	Gloss
Human/animate	<i>siva•λ</i>	<i>siva•meh</i>	‘woman/women’
	<i>a•škanelib</i>	<i>a•škanelimeh</i>	‘ant/ants’
Inanimate	<i>šo•čičil</i>	<i>šo•čicitinib</i>	‘flower/flowers’
	<i>ša•lob</i>	<i>ša•lobtinib</i>	‘jar/jars’

In the Maipurean language Guarekena there are also two plural markers: *-ne* and *-pe*. However, their distribution is striking, since it goes against the Animacy Hierarchy. The form *-ne* is used with nouns denoting animate nonhumans and a few others, and *-pe* with humans and remaining inanimates (pigs are also included here) (Corbett 2000: 37). As a consequence, the higher elements in the scale (humans) and the lower ones (inanimates) share the same marker. This striking distinction is common for several Arawakan languages. Actually, in Proto-Arawak *\*-na/-ni* ‘animate/human plural’ and *\*-pe* ‘inanimate/nonhuman’ forms are reconstructed (Aikhenvald 1999a: 84).

In some languages, respect and animacy merge in number markers. Newar has different plural markers depending on animacy as in other languages (cf. example (174)), but honored referents also have their own marker (Noonan 2008: 134).

Newar. Sino-Tibetan.

- (174) a. khica-tə  
 dog-PL  
 ‘dogs’

- b. pasa-pī  
 friend-PL  
 ‘friends’

The Tupí-Guaraní languages, spoken in the Amazon, do not have one single plural marker. They employ several suffixes. However, that which is reconstructed as *\*-p''ér* for Proto-Tupí-Guaraní can only be used with humans (Jensen 1999: 151).

The situation in this regard in Oriya is more complex, since some pluralizers are employed to show disrespect, together with animacy. This language has several plural number markers. Commonly, humans use *-mane* and nonhumans *-gudikə*/*-gudakə* (Ray 2003: 451). The nonhuman form can be used with humans to show disrespect or pity, as in example (175), but the human form is impossible with nonhumans.

Oriya. Indo-European.

- (175) *bicəra daktər-gudakə*  
 two doctor-PL  
 ‘two poor doctors’

Finally, in the Gudandji dialect of Wambaya, animacy operates both as a feature (AnimF) and as a condition (AnimC). Number is only marked with animate entities (so, this has been also addressed in § V.2.1.2). But regarding animacy as a feature, there is a split that separates humans and nonhumans by using different forms, as shown in Table 114 (Smith-Stark 1974: 659-660).

**Table 114.** Plural markers in the Gudandji dialect of Wambaya.

Animate		Inanimate
Human	Nonhuman	
<i>-man</i>	<i>-ma</i>	∅

## 5.2. Numerals

In some cases, numerals take overt morphemes depending on animacy. In Oriya, for instance, the plural marker *-ta/-ti* is overtly attached to a number when referring to a non-human, as in example (176). Attached to humans it shows disrespect (Ray 2003: 452). This language has a pluralizer *jəŋə* (which means ‘person’) restricted to humans and impossible with nonhumans, which is postposed to a number (cf. example (177))<sup>92</sup> (Ray 2003: 451).

<sup>92</sup> Compare this example to that in (175).

Oriya. Indo-European.

(176) *tini-ṭa kukurə*  
 three-PL dog  
 ‘three dogs’

(177) *dui jəṇə ḍaktər*  
 two PL doctor  
 ‘two doctors’

In Russian, the lower numerals *odin* ‘one’, *dva* ‘two’, *tri* ‘three’, and *četyre* ‘four’ show a nominative=accusative syncretism when added to an animate noun, and an accusative=genitive one with inanimates (Corbett 1978: 1-2).<sup>93</sup>

Numbers in Barasana-Eduria agree in sex and animacy, whereas inanimate numbers agree in number, and take a classifier (Jones & Jones 1991: 60).

The pervasive animacy agreement of Chinantecan languages reaches numerals in some of them; for instance, in Lealao and Ozumacin Chinantec. They take the animacy-marker *-y*, but they can also show other suprasegmental phenomena. See examples in (178) and (179), for the numerals ‘four’ and ‘ten’.

Chinantec Lealao. Otomanguean.

(178) a. *chiú<sup>3</sup>*  
 four.INAN  
 ‘four’

b. *chiúy<sup>3</sup>*  
 four.ANIM  
 ‘four’

(179) a. *dxíá<sup>4</sup> mi<sup>1</sup>-lí<sup>3</sup>*  
 ten.INAN CLASS:I-flower  
 ‘ten flowers’

b. *dxíé<sup>4</sup>-y dsíí<sup>3</sup>*  
 ten-ANIM dog  
 ‘ten dogs’

<sup>93</sup> In some old texts, we find that even *pjat* ‘five’ and other numerals show this pattern (Corbett 1978: 3).

Another Chinantecan language, that from Usila, also shows animacy agreement in numerals, but not in all of them. Let us have a look at the numeral system in this language (Skinner & Skinner 2000: 481-482).

First of all, some low numbers and some ordinals make the distinction. Others are compounded by numbers making such a distinction. In the examples in Table 115, besides some changes in the root, vowels, and nasalization, no tone change is used to distinguish animacy.

**Table 115.** Some numbers in Usila Chinantec.

	Animate	Inanimate
1	<i>con<sup>3</sup></i>	<i>jan<sup>3</sup></i>
2	<i>teun<sup>34</sup></i>	<i>on<sup>34</sup></i>
3	<i>bneng<sup>3</sup></i>	<i>on<sup>3</sup></i>
6	<i>jñei<sup>4</sup></i>	<i>jñi<sup>4</sup></i>
7	<i>quie<sup>34</sup></i>	<i>quion<sup>34</sup></i>
10	<i>quia<sup>34</sup></i>	<i>quian<sup>34</sup></i>
17	<i>quia<sup>5</sup> quie<sup>4</sup></i>	<i>quia<sup>5</sup> quion<sup>4</sup></i>
20	<i>quie<sup>4</sup></i>	<i>quion<sup>4</sup></i>
26	<i>quie<sup>4</sup> jñei<sup>4</sup></i>	<i>quie<sup>4</sup> jñi<sup>4</sup></i>
27	<i>quie<sup>4</sup> quie<sup>34</sup></i>	<i>quie<sup>4</sup> quion<sup>34</sup></i>
30	<i>quie<sup>4</sup> quia<sup>4</sup></i>	<i>quie<sup>4</sup> quian<sup>4</sup></i>

This language has a vigesimal system for multiples of 20. The marker to account for 20 distinguishes animacy by nasalization (Skinner & Skinner 2000: 483), as *lo<sup>5</sup>/lo<sup>4</sup>* are the forms agreeing with inanimate controllers, and *lon<sup>5</sup>/lon<sup>4</sup>* agree with animate ones. See example (180). Over fifty, for addition of decimals, the verb ‘be over’ is used. It distinguishes animacy as well, through nasalization and vowel alternation. Over a hundred, for addition of decimals another verb ‘be over’ (synonym of the former) is used, which distinguishes animacy as well. Compare the sentences in (181). The forms are summarized in Table 116 (Skinner & Skinner 2000: 483). Finally, some high numbers are formed by using the verbal form meaning ‘that they do not measure’, and distinguishing animacy again: *a<sup>2</sup>sa<sup>4</sup>tei<sup>43</sup>* is the

form for inanimates, and  $a^2sa^4tain^{43}$  for animates, as shown in example (182) (Skinner & Skinner 2000: 483).

**Table 116.** The verb ‘be over’ for numbers in Usila Chinantec.

	Over fifty	Over a hundred
Inanimate	$a^3tsei^{23}$	$ni^2tsei^1$
Animate	$ra^3tsain^{23}$	$ni^2tsain^1$

Chinantec, Usila. Otomanguean.

(180) a.  $to^4-lo^5$

two-twenty.INAN

‘forty (inanimate)’

b.  $to^4-lon^5$

two-twenty.ANIM

‘forty (animate)’

(181) a.  $teun^{34}$   $nia^4-lon^4$   **$ra^3tsain^{23}$**   $to^4lo^5quian^4$   **$ni^2tsain^1$**

two five-twenty be.over.ANIM two.twenty.ten be.over.ANIM

$quie^4j\ddot{n}i^4$

twenty.six

‘two hundred and seventy six (animate)’

b.  $quin^4$   $nia^4-lo^4$   **$ra^3tsei^{23}$**   $quie^4quia^4$

four five-twenty be.over.INAN thirty

‘four hundred and thirty (inanimate)’

(182) a.  $quia^{34}$   $a^2sa^4tei^{43}$   $nia^4lo^4$

ten that.they.do.not.measure.INAN one.hundred

‘ninety (inanimate)’

b.  $quian^{34}$   $a^2sa^4tain^{43}$   $nia^4lon^4$

ten.ANIM that.they.do.not.measure.ANIM one.hundred.ANIM

‘ninety (animate)’

Another language that restricts animacy distinction only to a certain set of numerals is Akan. It has a prefixation system to mark animacy in numerals from 1 to 9, according to

which the animacy marker *ba-* is attached to numerals modifying human entities (when the numeral is a modifier, not a pronoun, the marker may not be included), whereas it is forbidden for nonhumans and even animates. See example (183) (Osam 1993/1996: 156-157).

Akan. Niger-Congo

(183) a. nyimpa ba-anan  
 people ANIM-four  
 ‘four people’

a’. (?)nyimpa anan  
 people four  
 ‘four people’

b. n-dua anan  
 CLASS.PL-tree ANIM-four  
 ‘four trees’

b’. n-dua \*ba-anan  
 CLASS.PL-tree ANIM-four  
 ‘four trees’

The case of numerals in Sinhala can be used as representative of numbers that, apart from animacy agreement, have further distinctions. In this language, numerals agree also in case and definiteness (Gair 2003: 784). The examples in Table 117 are in the nominative case, and example (184) is in the dative case.

Sinhala. Indo-European.

(184) hoñdə lamay tundenekuṭə tæægi denna  
 good child.PL three.ANIM.INDF.DAT presents give  
 ‘Give presents to three good children.’

**Table 117.** Numbers in Sinhala (forms in the nominative case).

	Inanimate		Animate	
	Definite	Indefinite	Definite	Indefinite
1	<i>ekə</i>	<i>ekək</i>	<i>ekəkennaa</i>	<i>ekəkenek</i>
2	<i>dekə</i>	<i>dekək</i>	<i>denna</i>	<i>dennek</i>
3	<i>tunə</i>	<i>tunək</i>	<i>tundenaa</i>	<i>tundenek</i>
4	<i>batərə</i>	<i>batərək</i>	<i>batərədenaa</i>	<i>batərədenek</i>
5	<i>paha</i>	<i>pahək</i>	<i>pasdenaa</i>	<i>pasdenek</i>
6	<i>hayə</i>	<i>hayək</i>	<i>hayədenaa</i>	<i>hayədenek</i>
7	<i>batə</i>	<i>batak</i>	<i>batdenaa</i>	<i>batdenek</i>
8	<i>aṭə</i>	<i>aṭək</i>	<i>aṭədenaa</i>	<i>aṭədenek</i>
9	<i>namee</i>	<i>naməyak</i>	<i>namədenaa</i>	<i>namədenek</i>
10	<i>dabayə</i>	<i>dabayək</i>	<i>dabadenaa</i>	<i>dabadenek</i>

In Kolami, the animacy (human/nonhuman) agreement is restricted to lower numerals, which have, moreover, a sex based distinction, as can be seen in (185) (Corbett 1991: 168). Other related languages like Pottanji Ollar Gadaba, Duruwa, and Southeastern Kolami have the same paradigm (Corbett 1991: 168). Another language whose lower numerals (restricted to one and two) vary depending on the animacy of the controller is Sáliba, in Venezuela (Aikhenvald & Dixon 1999: 374).

Kolami. Dravidian.

- (185) a. iddar                    ma'sur  
           two.MASC.ANIM    man  
           'two men'
- b. i'ral                    pillakul  
           two.FEM.ANIM    woman  
           'two women'



- c. *indij*      *siɖl*  
 two.INAN    buffaloes  
 ‘two buffaloes’

As a controller of other features, animacy may also affect numerals. In Mba, numerals do not make an animacy distinction but, apart from agreeing in gender, they can optionally take a 3rd person pronoun only when they are co-referential with an animate entity: otherwise they cannot. See example (186) (Corbett 1991: 186). Me’phaa has the same system as Mba to mark animacy. Some categories take overt person and number marking when they are animate, and numerals are one of these categories. Example (187) comes from Malinaltepec Me’phaa (Marlett 2012: 3-4).

Mba. Niger-Congo.

- (186) a. *kíá*      (bi) *k-íamá*  
 snake(5) 3.SG 5-one  
 ‘one snake’
- b. *kàsá*      \*bi *k-íamá*  
 leaf(5) 3.SG 5-one  
 ‘one leaf’

Me’phaa. Otomanguean.

- (187) a. *ākò*    *gūʔwá*  
 four house  
 ‘four houses’
- b. *ākūū<sup>n</sup>*      *dīgū*  
 four.3.PL    pigeon  
 ‘four pigeons’

### 5.3. Quantifiers

See these forms in Table 118 from Barasana-Eduria (Jones & Jones 1991: 58). There are alternative forms for animates and inanimates. Moreover, in some cases, animate forms agree in sex, whereas inanimates take a classifier.

**Table 118.** Quantifiers in Barasana-Eduria.

Animates		Inanimates	
Form	Gloss	Form	Gloss
<i>sĩguri</i>	‘few, some’ (masculine, or irrelevant sex)	<i>bõboro</i>	‘few’
<i>sĩgori</i>	‘few, some’ (feminine)	<i>bõboroaka</i>	‘few, little’
<i>bõboroaka, õkãrãaka</i> <sup>94</sup>	‘few’	<i>õkõroaka</i>	‘few’
<i>bãrã, bãharã</i>	‘many’	<i>bairo</i>	‘much, many’
<i>bediro, bedirã</i>	‘all’	<i>bediro</i>	‘all’
<i>tokãrãku, tokõro</i>	‘that number’ (masculine, or irrelevant)	<i>tokõro</i>	‘that number’
<i>tokãrãko</i>	‘that number’ (feminine)	<i>tokarãka</i> (+shape classifier)	‘that number’ (+shape classifier)

Likewise in the Chinantecan languages some quantifiers show an animacy distinction, by adding *-y* for animate agreement. Other suprasegmental phenomena may also apply. See the word for ‘all’ in example (188) from Lealao Chinantec (Rupp 2009: 9-10), and the correspondences in the variety of Usila, in Table 119 (Skinner & Skinner 2000: 484-485). Note that in the forms from Usila no *-y* morpheme appears.

Chinantec, Lealao. Otomanguan.

(188) a. *liáh<sup>4</sup>jĩ<sup>3</sup> ñú<sup>2</sup>*  
 all.INAN house  
 ‘all the houses’

b. *liáh<sup>4</sup>jĩ<sup>3</sup>-y dsa<sup>3</sup>*  
 all-ANIM person  
 ‘all the people’

<sup>94</sup> Alternative forms show dialectal variation.

**Table 119.** Quantifiers in Usila Chinantec.

Inanimate	Animate	Gloss
<i>ca<sup>3</sup>chie<sup>32</sup></i>	<i>ca<sup>3</sup>chion<sup>23</sup></i>	‘some, part of’
<i>conh<sup>4</sup>con<sup>3</sup></i>	<i>conh<sup>4</sup>jan<sup>3</sup></i>	‘each’
<i>blion<sup>4</sup></i>	<i>jeun<sup>43</sup></i>	‘a lot’
<i>i<sup>2</sup>con<sup>3</sup></i>	<i>i<sup>2</sup>jan<sup>3</sup></i>	‘(an)other’
<i>la<sup>4</sup>jeg<sup>34</sup></i>	<i>la<sup>4</sup>jang<sup>34</sup></i>	‘all’
<i>to<sup>5</sup>chieb<sup>32</sup></i>	<i>to<sup>5</sup>chionb<sup>2</sup></i>	‘a half of’
<i>i<sup>1</sup>con<sup>3</sup></i>	<i>i<sup>1</sup>jan<sup>3</sup></i>	‘no, noone’

In Europe, the Dutch language has some quantifiers, such as *meeste* ‘most’, *sommige* ‘some’, and *beide* ‘both’, which take the suffix *-n* when they denote human entities. Compare examples in (189), taken from de Swart, Lamers, & Lestrade (2008: 132).

Dutch. Indo-European.

(189) a. de studenten hebben beide-n het boek gelezen  
 the students have both-ANIM the book read  
 ‘The students both read the book.’

b. de boeken werden beide door de studenten gelezen  
 the books were both by the students read  
 ‘Both books were read by the students.’

## 6. VERBS

Animacy may affect different elements within a verbal form, or rather, different elements attached to a verbal root, like gender markers, bound pronouns, or tense markers among others. Animacy distinctions in these have been addressed in their corresponding sections. In the cases compiled here, animacy is involved as a semantic feature in different elements of verbal morphology (§ 6.1), conditioning the overt agreement of different features, their values, and controllers (§ 6.2), or defining the morphological structure of a verb (§ 6.3).

### 6.1. Animacy as a semantic feature

Abkhaz provides an example in which a verb takes an animacy marker. It happens in partial questions, which use the relative form of a nonfinite verb. If the question NP is human, the suffix *-da* must be added after the verbal root. See example (190) (Hewitt 1979: 10 ff.).

Abkhaz. North Caucasian.

(190) *y-àa-da*

REL-come-HUM

‘Who came?’

Terêna makes an animate/inanimate distinction in descriptive verbs (Aikhenvald 1999a: 84). Likewise in the Americas, in contrast to the Chinantec spoken in Lealao, in Ozumacin Chinantec bound pronouns attached to the verb do not have an animacy-based distinction. However, the verbal root undergoes some changes to agree in animacy with the intransitive subject or the direct object. In example (191), the verb meaning ‘to make’ undergoes a vowel change due to the former presence of the animate marker *-y* (Rupp 2009: 14).

Chinantec, Ozumacin.

(191) a. *dsa<sup>-</sup>-təh<sup>+</sup>      wa<sup>-</sup>-le<sup>+</sup>*

FUT-fall.INAN    PREF-flower

‘The flower will fall.’

b. *dsa<sup>-</sup>-tä<sup>h</sup> (<tä<sup>h</sup>-y)    chih<sup>-</sup>*

FUT-fall.ANIM    child

‘The child will fall.’

In Plains Cree animacy is expressed in many ways and grammatical categories. Although it is not the most common device, animacy distinction on the verbs is sometimes expressed by means of a difference in the stem. For instance, *wāpabt-* ‘see’ is used when the object is inanimate, whereas *wāpam-* is the stem employed when an animate object is seen. And the stem *obpiki-* denotes an animate entity growing, but *obpikin-* is used for an animate entity growing up (Ortmann 1998: 79-80; Wolfart & Carroll 1981 [1973]: 62-63).

In some Indo-Aryan languages, such as Kalasha or Dameli (Lautin 2016: 19-20), the existential ‘to be’ has suppletive root forms depending on the animacy of the subject. In Sinhala (Gair 2003: 790), for instance, *innavā* is used for animates and *tiyenavā* for inanimates

(Masica 1991: 221). In Nanti, it is the possessed NP that controls animacy agreement in the existential verb (Michael 2013: 156).

Nanti. Maipurean.

(192) a. **ainyo**            Marota            o-tomi  
 EXIST.ANIM    Marota(FEM)    3.FEM.SG-son  
 ‘Marota has a son (lit. there is a son of Marota).’

b. **aityo**            Ihorina            i-bito  
 EXIST.INAN    Ihorina(FEM)    3.FEM.SG-canoe  
 ‘Ihorina has a canoe (lit. there is a canoe of Ihorina).’

As in the preceding examples, in the Klamath-Modoc language, spoken in Oregon and Northern California, the shape of the verb may vary depending on animacy. In this language, there are some classificatory verbs, compatible with a set of nouns. One of them is the verb ‘to give’, whose form varies depending on the semantics of the given direct object (flat, round, or animate). In the plural no distinction is made. Although the semantic distinction is not purely based on animacy, there is a proper verbal form for animate (alive) objects, as can be seen in Table 120 (Corbett 2000: 248).<sup>95</sup>

**Table 120.** Verb ‘to give’ in Klamath-Modoc.

	Sg	Pl
Round	<i>l'oy</i>	
Flat	<i>n'oy</i>	<i>s?ewan?</i>
Alive	<i>k's'oy</i>	

The last case I will discuss in this section is special, since animacy operates both as a semantic feature (AnimF) and as a condition (AnimC). The data come from Blackfoot, an Algonquian language from North America. Verb stems are formed in this language by a root and a lexicalized affix forming a stem, which encodes animacy of the intransitive subject or of the object. However, apart from that, it also encodes transitivity/intransitivity and some

<sup>95</sup> If the verbal forms in the singular were segmentable as *l'-oy*, *n'-oy*, and *k's'-oy*, we could suggest that there are different gender markers prefixed to the verb. If so, these data should be included in § IV.9, but following my source, I have considered them non-segmentable elements.

information about the role of the object, which will be addressed in § 6.2.<sup>96</sup> Consequently, there are four possible affixes: Intransitive animate (IA), intransitive inanimate (II), transitive animate (TA), and transitive inanimate (TI). See an example of each one in (193), taken from Russell *et al.* (2012: 58).

Blackfoot. Algic.

- (193) a. Ø-soka'pssi-wa  
 3-be.good(IA)-PROX  
 'S/he/it (ANIM) is good.'
- b. Ø-soka'pii-wa  
 3-be.good(II)-3.SG  
 'It (INAN) is good.'
- c. nit-iik-waakomimm-aa-wa  
 1-very-love(TA)-DIR<sub>1</sub>-PROX  
 'I love him/her/it (ANIM).'
- d. nit-ikooni-hp-wa  
 1-take.down(TI)-DIR<sub>3</sub>-3.SG  
 'I take it (INAN) down.'

Note from (193a) and (193b) that a verb may take different affixes. However, not all the verbs have the four combinations available (Russell *et al.* 2012: 58-59). Moreover, these affixes are also sensitive to specificity, as if the object is not specific, the verb may behave as intransitive (Russell *et al.* 2012: 63-64). Compare both sentences in (194).

Blackfoot. Algic.

- (194) a. nit-waan-istoo-p'-wa (> nitáanisto'pa)  
 1-say-TI-DIR<sub>3</sub>-3.SG  
 'I said it (INAN).'

---

<sup>96</sup> This affix is not a verbal root, but I have considered it as a part of verbal morphology, including it in this section dedicated to animacy in verbs. Moreover, as can be seen in the examples, the affix is phonologically merged with the verbal root.

b. nit-waan-ii (> nitáanii)

1-say-AI

‘I said something.’

There is also another element of verbal morphology that is sensitive to animacy and agrees with it: voice markers. Transitive verbs in Blackfoot, namely TI and TA verbs, also have direct and inverse marking after the abovementioned affix (cf. (194a)). I have summarized the forms in a table with data from Russell *et al.* (2012: 60-61).

**Table 121.** Voice markers in Blackfoot.

Verb	Action	Name	Form
	1>2	LOC <sub>1</sub>	-oo
	2>1	LOC <sub>2</sub>	-oki
TA	SAP>3	DIR <sub>1</sub>	-aa
	3PROX>3OBV	DIR <sub>2</sub>	-ii
	3>1/2, 3OBV>3PROX	INV	-ok
TI	SAP>3	DIR <sub>3</sub>	-hp
	3PROX>3OBV	DIR <sub>4</sub>	-m

Direct/inverse marking follows this hierarchy in Blackfoot: 1/2 > 3 proximate > 3 obviative. Consequently, marking is related to a person hierarchy —Speech Act Participants (SAP) > 3rd person—, and secondarily, an obviation hierarchy —proximate > obviative—; therefore animacy is not important here. When an element higher on the scale acts upon a lower one, direct marking is used; otherwise, inverse marking must be employed. In local scenarios, those involving just 1st and 2nd persons, there is no hierarchy, but different forms (LOC<sub>1</sub> and LOC<sub>2</sub>) are employed depending on the direction of the action. As in TI verbs the object must be inanimate, LOC forms are unavailable. Similarly, since the agent will always be animate and the object inanimate in these verbs, the INV marker is not possible: we will never have a 3rd person (agent) acting upon a 1st or 2nd one (object), and if we have two 3rd persons, the inanimate object will never be the proximate. But what is important for animacy is, precisely, that for direct marking, there are different forms depending on the animacy of the objects: TA verbs use -aa and -ii, and TI verbs, -hp and -m, respectively.

## 6.2. Animacy as a condition for agreeing features and values

In the examples studied in the previous section, animacy operated as a semantic feature (AnimF), changing the shape of different elements of verbal morphology, depending on the animacy of different agreement controllers. In this section I will show that animacy can operate as a condition as well (AnimC), determining the overt marking of a feature in a verb, the value of this feature, or even which element in the sentence must be the agreement-controller.

In Bunak, a prefixed bound pronoun agreeing in person is overtly attached to the verb, if the direct object is animate (Holton & Robinson 2014: 162). This can be seen in example (195). In Takelma, 3rd person subject and object bound pronouns are not overtly marked in the verb, except for the object if it is human, so that ambiguity for the identification of the agent is avoided; see example (196) (Mallinson & Blake 1981: 172-173).

Bunak. Trans-New Guinean

- (195) a. Markus zo poi  
 Marcus mango choose  
 'Marcus chose a mango.'
- b. Markus zap go-poi  
 Marcus dog 3-choose  
 'Marcus chose a dog.'

Takelma. Language isolate (Penutian?).

- (196) a. t'ibišī t'ayak  
 ants found  
 'He found the ants.'
- b. t'ibišī t'ayakwa  
 ants found.3  
 'The ants found him.'

Obviously, bound pronouns may encode more features than just person. In the Hua dialect of Yagaria, animacy appears in the verb as a condition both for person and number agreement with the direct object. This object agrees in the verb by means of bound pronouns, only when the object is human (Siewierska 2004: 154-155).



Yagaria. Trans-New Guinean.

- (197) a. vedemo p-go-e  
 men 2/3.PL-see-1.SG  
 ‘I saw the men.’
- b. mna-vrza-mo ko-e/\*p-go-e  
 bird-COLL-PL see-1.SG/\*2/3.PL-see-1.SG  
 ‘I saw the birds.’

Lakota does not mark number in the subject NP, but encodes it in the verb. In any event, number is overtly marked in the verb only with animate subjects. Inanimates must use reduplication. See example (198) (Nichols 1992: 144-145).

Lakota. Siouan-Catauwan.

- (198) a. wičhaša kį hí-pi  
 man ART come-PL  
 ‘The men have come.’
- b. čhąki háskaska  
 tree tall (reduplicated)  
 ‘The trees are tall.’

In the Bantu language Swahili, gender agreement with the object is included in the verb by means of a specific marker (Seidl & Dimitriadis 1997). Its overt appearance seems to be controlled, above all, by the definiteness of the object, and then, among definite ones, by animacy, as can be seen in example (199) taken from Croft (1990: 129-130).

Swahili. Niger-Congo.

- (199) a. ni-li-**mw**-ona yule mtu  
 1.SG-PST-**OBJ**-see the person  
 ‘I saw the person.’
- b. ni-li-**mw**-one mto mmoja  
 1.SG-PST-**OBJ**-see person one  
 ‘I saw one person.’
- c. ni-li-ki-soma kitabu  
 1.SG-PST-**OBJ**-read book  
 ‘I read the book.’

- d. ni-li-soma            kitabu  
 1.SG-PST-read        book  
 ‘I read a book.’

Defining the cut-off point inside the Animacy Hierarchy, however, seems to be difficult in this language. Aikhenvald (2000: 33-34) states that object agreement is optional when the object is inanimate, but Croft (1990: 123-130) says that object agrees on the verb when it is human, or definite nonhuman. Clearly, Croft’s approach explains the data above more accurately. A more extensive study based on a corpus done by Seidl & Dimitriadis (1997), however, shows that animacy as a controller is only a tendency, as there are examples of non overtly marked animate objects. Salience, presupposedness, new vs. old referring entities and so on, seem to be also significant.

These features are not always overtly expressed by bound pronouns. Sometimes it is the verb itself (at least synchronically) that inflects for them. Moreover, the controller of this verbal agreement is not always the object, but the subject can also serve this function. Me’phaa is a good example. Number and person agreement with the subject is expressed in the verb by inflection, and it shows differences based on animacy (Marlett 2012: 6 ff.). In intransitive verbs, only animate subjects agree overtly in the verb, as is shown in (200).

Me’phaa. Otomanguean.

- (200) a. ndāsúú?<sup>n</sup>            ĩná    dígì?  
 IMPF.smell.bad    leaf    DEM:INAN.PROX  
 ‘This plant smells bad.’
- b. ndāsúwī?<sup>n</sup>            fũhkú?    súgì?  
 IMPF.smell.bad.3.SG    animal    DEM:ANIM.PROX  
 ‘This animal smells bad.’

However, not all the verbs show this agreement with the animate subject. In example (201) the intransitive verb ‘to fall’ remains unmodified (Marlett 2012: 6 ff.).

Me’phaa. Otomanguean.

- (201) a. síngwa?<sup>n</sup>    **nĩhkà**            ĩsí            dí            nĩtādà?  
 far            PFV.fall.3.GRAL    stone        REL:INAN    PFV.throw.2.SG  
 ‘The stone you threw fell far.’

- b. siŋwa?<sup>n</sup>    **nīhkà**                    tʃíhlú?    bù                    nītādàà?  
 far                    PFV.fall.3.GRAL    stone    REL:ANIM    PFV.throw.2.SG>3.SG  
 ‘The lizard you threw fell far.’

On the other hand, transitive verbs agree with animate objects, as shown in (202), so agreement works in an ergative way. In ditransitive constructions agreement is made with the agent and the goal, but it is compulsory, and not determined by animacy.

Me’phaa. Otomanguean.

- (202) a. ādāhfnjú?                    <sup>m</sup>bá                    gūmā                    mūhmù?  
 OPT.bring.2.SG    INDF    omelette    yellow  
 ‘Bring a yellow omelette.’
- b. ādāhfnjú?                    <sup>m</sup>bāā                    āhk<sup>w</sup>áà<sup>n</sup>    mūhmì?  
 OPT.bring.2.SG>**3.SG**    INDF.3.SG    ant                    yellow.3.SG  
 ‘Bring a yellow ant.’

Nkami, a language spoken in Ghana, shows optionality for subjects to agree in the verb by using a bound pronoun. Animate subjects may agree or not, whereas inanimate subjects can never do it, as illustrated in (203) (Asante & Akanlig-Pare 2015: 69).

Nkami. Niger-Congo.

- (203) a. anansi    bebiree    (**bɛ**-)mina                    obɔ    amɔ    yɔ  
 spider    many    (3.PL.ANIM-)stick/be.fixed    building    DET    self  
 ‘There are many spiders on the wall.’
- b. ntintai    bebiree    \***bɛ**-mina                    obɔ    amɔ    yɔ  
 cobweb    many    3.PL.ANIM-stick/be.fixed    building    DET    self  
 ‘There are many cobwebs on the wall.’

Apart from subjects or objects, the relative animacy of different elements can also control verbal agreement. That is the case in Lango. In this language, in ditransitive sentences it is the animate indirect object that agrees, but if the direct object is animate, it is that direct object that controls this agreement, so animacy defines what the controller of agreement is (Kittilä 2008: 262-263).

Lango. Nilo-Saharan.

(204) a. *lócə òmÿá búk*  
 man 3.SG.give.PFV.1.SG book  
 ‘The man gave me the book.’

b. *lócə òmÿe bòtə*  
 man 3.SG.give.PFV.3.SG to.1.SG  
 ‘The man gave him to me.’

In Blackfoot, too, animacy can determine which argument is indexed in the verb, but in a different way. We saw in the previous section (§ 6.1) that Blackfoot has a sort of morpheme attached to the verbal root that encodes transitivity, i.e. the existence of an object, and the animacy of that object, having four theoretically possible combinations, namely intransitive animate (IA), intransitive inanimate (II), transitive animate (TA), and transitive inanimate (TI). Apart from that, these suffixes also determine the function and semantics of the object in the sentence. Let us have a look at the affixes of the verb ‘to loan’, compiled in Table 122, and adapted from Russell *et al.* (2012: 63). Note that in this verb the four theoretically possible combinations are not available, and that there are two transitive animate (TA) suffixes.

**Table 122.** Affixes combining with *waabkomá't-* ‘to loan’ in Blackfoot.

Affix	Stem class	Cross-referenced participants	Gloss
<i>w-aa</i>	IA	Agent	‘borrow (something)’
<i>-atoo</i>	TI	Agent and patient	‘borrow an inanimate, specific patient’
<i>-at</i>	TA	Agent and patient; Agent and recipient	‘borrow an animate, specific patient; borrow a patient from an animate, specific source’
<i>-abkoo</i>	TA	Agent and recipient	‘lend a patient to an animate, specific recipient’

Only two arguments can be indexed on the verb, and they do it by means of bound pronouns (Russell *et al.* 2012: 61-62). In ditransitive sentences the encoded argument is always the agent, and sometimes also the object or the recipient. The affix determines the semantics of the NP indexed. If we come back to Table 122, the first affix, which is intransitive and inanimate, tells us that the encoded argument must be the agent, and that the object will be inanimate. The object it is not encoded in the verb, because it is not specific;

consequently, the verb behaves as an intransitive. The second suffix, transitive and inanimate, encodes the agent and the patient, which must be inanimate (and specific). Third, *-at* and *-ahkoo* are both transitive and animate, but whereas the former can encode, apart from the agent, either the animate patient or the animate recipient, in the latter only the recipient can be encoded in the verb together with the agent. Moreover, the semantics of the verb is also conditioned. I provide an example of each case in (205), both adapted from Russell *et al.* (2012: 63-64).

Blackfoot. Algonquian.

- (205) a. Ø-wáahkomá't-**aa**-wa isspiksísoka'siM-i  
 3-loan-**IA**-PROX coat-NSPEC  
 'S/he borrowed a coat.'
- b. Ø-waahkomá't-**atoo**-m-wa ni-asóka'siM-yi  
 3-loan-**TI**-DIR<sub>4</sub>-PROX 1-jacket-INAN.SG  
 'S/he borrowed **my jacket**.'
- c. Ø-waahkomá't-**at**-ii-wa n-óta's-yi  
 3-loan-**TA**-DIR<sub>2</sub>-PROX 1-horse-OBV  
 'She borrowed **my horse**.'
- d. nit-yáak-waahkomá't-**at**-ok-innaan-wa ámo-yi ponokáomitáa-yi  
 1-FUT-loan-**TA**-INV-1.PL.EXCL-PROX DEM-OBV horse-OBV  
 'She will borrow this horse **from us**.'
- e. nit-yáak-waahkomá't-**at**-a-yi=aawa  
 1-FUT-loan-**TA**-DIR<sub>1</sub>-3.PL=3.PL  
 'I will borrow **from them** (not: I will borrow **them**).'
- f. nít-waahkomá't-**aahko**-ok-wa ámo-yi isspiksísoka'siM-yi  
 1-loan-**TA**-INV-PROX DEM-INAN.SG coat-INAN.SG  
 'She (PROX) lent **me** this coat (INAN).'

As we have just seen, in Blackfoot, unspecific objects do not trigger any verbal agreement and verbs behave as if they were intransitive (cf. (205a), for instance). In the genetically related language Plains Cree, however, it is animacy, and not specificity, that controls this agreement, since only transitive verbs having an animate direct object show transitive morphology. Transitive inanimate verbs are declined like intransitives (Wolfart & Carroll

1981 [1973]: 67 ff.). Note in examples below that only the animate object triggers overt number marking on the verb.

Cree, Plains. Algić.

(206) a. ni-wap-am-aw-ak

1-see-ANIM-DIR-PL

‘I see them.’

b. niso waskahikan-a ni-wap-aht-en

two house-PL 1-see-INAN-N3RD

‘I see two houses.’

In some cases, animacy does not determine the overt marking of a feature or the controller of this agreement, but determines the values of these features in the verb. That is the case in Afar. In this language, when the subject is formed by two conjoined NPs, if both NPs are human, either plural or the default number agreement is allowed, when animate is uncertain, and with inanimates the default agreement is compulsory (Corbett 2000: 203-205).<sup>97</sup> Likewise in Egyptian Spoken Arabic, humans tend to use the plural instead of the feminine singular default form (Corbett 2000: 208).<sup>98</sup> A well-known language like English also has a similar example regarding number agreement. Corporate singular nouns formed by individual humans can agree in plural, but inanimates do not. Nonhuman animates are doubtful (Corbett 2000: 188-9, footnote).

English. Indo-European.

(207) a. the committee are/is...

b. \*the forest are...

c. ?the herd are...

In Eshtehardi, animacy controls object-sex agreement values on the verb. The direct object agrees in gender (masculine/feminine) strictly only when it is animate. With inani-

<sup>97</sup> Individuation and other factors are also important.

<sup>98</sup> The distance and the order between the controller and the target exerts an influence as well, plural agreement being more typical when the controller precedes the target, and when the distance between them is higher. In addition, the technique for plural marking also has a slight influence (Corbett 2000: 208-210). In modern Arabic default agreement is more widespread.

mate entities this is not that clear (Comrie 1989 [1981]: 194). Moreover, from these examples, it can be inferred that when the subject is omitted the bound pronoun agreeing with it is attached to the verb, whereas when it is overtly mentioned (cf. *Hassan*), the bound pronoun is attached to the object.

Eshtehardi. Indo-European.

- (208) a. asb                      arāšī-eš  
           horse(MASC) galloped.MASC-he.ERG  
           ‘He galloped a horse.’
- b. mādiuna              arāšia-š  
           mare(FEM) galloped.FEM-he.ERG  
           ‘He galloped a mare.’
- c. Hasan-e      siva-š                      bexārd  
           Hasan-ERG apple(FEM)-he.ERG ate.MASC  
           ‘Hassan ate an apple.’

### 6.3. Animacy and verbal morphological structures

This last section includes examples indicating that animacy as a condition can force changes in the morphological construction of a verb and the order of morphemes. In Shambala and Haya, as pointed out in § III.6, animacy (together with other elements) does not determine the controller of verbal agreement, but the relative order of agreeing bound pronouns in the verb. As illustrated in Figure 39, there is a hierarchy of hierarchies, namely person > number > animacy > function, controlling morpheme order. As a consequence, having two 3rd person bound pronouns marking the direct and the indirect object respectively, if both have the same number, the animate will precede the inanimate one. Example (209) shows that, both being pronouns, 3rd person, and singular, the animate one is closer to the verbal root (Siewierska 2004: 170-171).

**Figure 39.** Hierarchies in Shambala and Haya.

- a) Person: 1 > 2 > 3
  - b) Number: Singular > plural
  - c) Animacy: Human > nonhuman
  - d) Function: Indirect object > direct object
- Person > number > animacy > function

Shambala. Niger-Congo.

(209) na-i-mw-itang-i-a

1.SG-**it-him**-call-APPL-ASP

‘I call it for him.’

In Southern Tiwa, as I also pointed out in § III.1.1.3, animacy does not determine morpheme order, but the incorporation of the object. For this purpose, animacy is not the only factor: number, presence of a modifier, and person of the subject are also important (Allen, Gardiner, & Frantz 1984: 295). The rules for object-incorporation are summarized in Figure 40, which has been adapted from Allen, Gardiner, & Frantz (1984: 295) and Croft (1990: 129).

**Figure 40.** Rules for object-incorporation in Southern Tiwa.

	Pl		Sg	
	Unmodified	Modified	Unmodified	Modified
Human	obligatory	optional	optional*	optional*
Animate	obligatory	obligatory	obligatory	optional
Inanimate	obligatory	obligatory	obligatory	obligatory

\* If the subject is 3rd person, incorporation is obligatory.

As stated before, different factors determine object-incorporation: whether the object is singular or plural, whether it is modified by a numeral or demonstrative, and finally, whether it is human, animate, or inanimate. As can be inferred, the more inanimate the object is, the more obligatory the incorporation is. I will provide a couple of examples given by Allen, Gardiner, & Frantz (1984: 294-295) to illustrate the phenomenon. In (210) the object is inanimate, so it must be compulsorily incorporated. Example (211) is a plural human object, modified by a number; consequently, incorporation is optional.



Tiwa, Southern. Kiowa-Tanoan.

(210) a. yede ti-shut-pe-ban  
 that 1.SG>SG.GENDER:II<sup>99</sup>-shirt-make-PST  
 ‘I made that shirt.’

b. \*yede shut ti-pe-ban  
 that shirt 1.SG>SG.GENDER:II-make-PST  
 ‘I made that shirt.’

(211) a. wisi bi-seuan-mū-ban  
 two 1.SG-PL-GENDER:I-man-see-PST  
 ‘I saw two men.’

b. wisi seuanin bi-mū-ban  
 two man.PL 1.SG-PL-GENDER:I-see-PST  
 ‘I saw two men.’

Abui is interesting, since animacy affects the overt addition of bound pronouns in a very special way. Only verbs that can have either animate or inanimate objects can take agreement bound pronouns. Otherwise, no bound pronoun can be added (Klamer & Kratochvíl 2006: 64 ff.). Thus, overt marking is not directly related to the animacy of the object, but to the potentiality of a verb to have animate or inanimate objects. In this language, then, there is no morphological split based on animacy.

In Teiwa, a Trans-New Guinean language, verbs are classified depending on their capacity to take bound pronouns, as in Abui. This is the classification, following Klamer & Kratochvíl (2006: 62), Klamer (2010: 87-94), and Fedden *et al.* (2013: 35, 47-49):

- Verbs that can only have an animate object and use the bound pronoun.
- Verbs that can only have an inanimate object and use the bound pronoun (there are just five).
- Verbs that can only have an animate object and do not use the bound pronoun.
- Verbs that can only have an inanimate object and do not use the bound pronoun.

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<sup>99</sup> This gloss states that this morpheme co-references a 1st person singular subject and a singular object in gender I. Gender I is used for animates and some inanimates, and genders II and III are for inanimates (Allen, Gardiner, & Frantz 1984: 293, footnote 5).

- Verbs that can have both animate and inanimate objects and use the bound pronouns with animate objects and the free pronoun with inanimates (or focalized animates).
- Verbs that can have both animate and inanimate objects and always use the bound pronoun, which has two different forms depending on animacy.

From the point of view of morphology, then, only the last two groups show splits based on animacy. The last one affects just the shape of the bound pronoun, so it has been addressed in § 1.1. In the other, the verb is affected, since the pronoun is added to it only when the object is animate. Let us examine (212) as an example of this (Klamer & Kratochvíl 2006: 61).

Teiwa. Trans-New Guinean.

(212) a. a ga-regan.

3.SG 3-ask

‘He asks him.’

b. a ga’an regan.

3.SG 3 ask

‘He asks it.’

## 7. TENSE MARKERS

In the Indo-European language Kalasha, the auxiliary verb agrees in animacy with the subject in the 3rd person. The verb ‘to be’, whose partial paradigm is given in Table 123 (Bashir 2003: 854), is one of the most common auxiliaries.

**Table 123.** Auxiliary verb ‘to be’ in Kalasha.

Person	Present		Past-actual	
	Sg	Pl	Sg	Pl
1	<i>á-am (ás-am)</i>	<i>á-ik (á-sik)</i>	<i>áy-is (ás-is)</i>	<i>áy-imi (ás-imi)</i>
2	<i>á-as (ás-as)</i>	<i>á-a (á-sa)</i>	<i>áy-i (ás-i)</i>	<i>áy-ili (ás-ili)</i>
3 Animate	<i>á-au (ás-au)</i>	<i>á-an (ásan)</i>	<i>áy-is (ás-is)</i>	<i>áy-ini (ás-ini)</i>
3 Inanimate	<i>š’-u</i>	<i>š’-an</i>	<i>aš’-is</i>	<i>aš’-ini</i>

In the third person there is a different marker *ṣ̌-/aṣ̌-* for inanimates, whereas the remaining animate persons have *á-/áy-* in the present and past-actual respectively. Which function this morpheme fulfills is not explicitly expressed in the data source, but it can be inferred looking at the paradigm: the morphological variation is determined by tense, so they might be taken as tense markers.

A similar pattern is found in the closely related language Chuwar, although morpheme-segmentation is not that evident (Bashir 2003: 846).

**Table 124.** Auxiliary verb ‘to be’ in Khowar.

Person	Present actual		Past	
	Sg	Pl	Sg	Pl
1	<i>asúm</i>	<i>asúsi</i>	<i>asítam</i>	<i>asítam</i>
2	<i>asús</i>	<i>asúmi</i>	<i>asítau</i>	<i>asítami</i>
3 Animate	<i>asuúr</i>	<i>asúni</i>	<i>asítai</i>	<i>asítani</i>
3 Inanimate	<i>šéér</i>	<i>šéni</i>	<i>širái</i>	<i>širáni</i>

Finally, data from Southern Pashai in Table 130 (Bashir 2003: 828) might also be interpreted like those from Kalasha and Khowar. However, in this case segmentation is almost impossible, so animacy variation, which only happens in the present tense, could be attributed to the full verbal form, more than just to the tense marker, which is not separable from the rest.

**Table 125.** Present of the auxiliary verb ‘to be’ in Southern Pashai.

Person	Sg	Pl
1	<i>āem</i>	<i>āis</i>
2	<i>āī</i>	<i>āī</i>
3 Animate	<i>ās</i>	<i>ā(e)n</i>
3 Inanimate	<i>ṣ̌{ī/ē}</i>	<i>šen</i>

## 8. ADVERBS

## 8.1. Adverbs of negation

The elements used to mark negation, usually adverbs, are sensible to animacy distinctions in some languages. Chinantecan languages are especially rich in the grammatical categories within a sentence that can be targets of animacy agreement. Table 126 includes some examples of negation adverbs of Usila Chinantec, which show an animacy agreement with the subject of the sentence (Skinner & Skinner 2000: 546-547).

**Table 126.** Negation adverbs in Usila Chinantec.

'no'	Inanimate	<i>a<sup>5</sup> sia<sup>3</sup></i>
	Animate	<i>a<sup>5</sup> sian<sup>43</sup> i<sup>3</sup></i>
'already not'	Inanimate	<i>a<sup>5</sup> sie<sup>43</sup></i>
	Animate	<i>a<sup>5</sup> sion<sup>43</sup> i<sup>3</sup></i>
'it is not'	Inanimate	<i>a<sup>5</sup> jon<sup>43</sup></i>
	Animate	<i>a<sup>5</sup> hei<sup>43</sup></i>

The Papuan Language Sentani has different ways to make negation. When using a negatizer, it uses different forms depending on animacy and the controller's real existence (Hartzler 1994: 60-63). Forms have been summarized in Table 127, and examples are in (213) (Hartzler 1994: 60-61). Data provided seem to show that there is a human/nonhuman split among the existent entities, and an animate/inanimate among the nonexistent.

**Table 127.** Negatizer adverb in Sentani.

	Existent	Nonexistent
Human	<i>olo</i>	<i>ban</i>
Animate	<i>an</i>	<i>ban</i>
Inanimate	<i>an</i>	<i>u</i>

Sentani. Papuan.

- (213) a. Eli imæ-na? Olo.  
 Eli house-his no.HUM  
 'Is Eli at home? No, he's not.'
- b. reyæ isi an.  
 I know nothing  
 'I don't know.'
- c. weyæ fi bele? U.  
 you sago with none  
 'Do you have any sago? No, I don't.'
- d. weyæ fa bele? Fa ban.  
 you child with child none  
 'Do you have any children? No, I don't'

## 8.2. Adverbs of comparison

In Usila Chinantec there is animacy-based distinction also in some comparative adverbs, which are actually etymologically related to pronouns (Skinner & Skinner 2000: 555).

Chinantec, Usila. Otomanguean.

- (214) a. a<sup>5</sup>jon<sup>43</sup>a<sup>2</sup> lia<sup>4</sup>  
 more.INAN than  
 'more than (inanimate)'
- b. a<sup>5</sup>hei<sup>43</sup>i<sup>2</sup> lia<sup>4</sup>  
 more.ANIM than  
 'more than (animate)'

## 8.3. Adverbs of manner

Once again, it is Chinantec from Usila that has adverb of manner agreeing in animacy (Skinner & Skinner 2000: 545). An example is provided in (215).

Chinantec, Usila. Otomanguean.

- (215) a. ta<sup>5</sup>ra<sup>3</sup>quia<sup>3</sup>  
 laying.down.INAN  
 'laying down (INAN)'

- b. ta<sup>5</sup>ra<sup>3</sup>qian<sup>3</sup>i<sup>3</sup>  
 laying.down.ANIM  
 'laying down (ANIM)'

## 9. GENDER MARKERS AND CLASSIFIERS

As expected, gender markers and classifiers are sensitive to animacy distinctions in many languages. Gender systems will be addressed extensively in § V.1, but a little sample with some interesting gender markers and classifiers has been provided here. As we will see, from a formal point of view, these markers can be added to different categories. On the other hand, at a semantic level, I will show that animacy can be either the central semantic feature of these gender systems, or just one distinction among others.

Gender markers and classifiers have been studied together, since both are a reflection of the gender system in a language. Moreover, most of the examples of classifiers given here are nominal classifiers, therefore added to the controller NP itself, but there are also some possessive and verbal ones. However, there are other types of classifiers in which animacy plays a role. Noun categorization devices have been recently studied by Aikhenvald (2017: 387) and, as she shows in a table I have adapted in Figure 41, animacy is crosslinguistically the most important semantic feature in some of them, and it is also present in others.

As I have pointed out on several occasions, the Chinantecan languages have a purely animacy-based gender system, affecting various categories within the sentence. Although there is not a proper gender-marker paradigm, in my opinion, these markers can be inferred in some paradigms. If we have a look at demonstrative pronouns in Usila Chinantec in Table 128 (Skinner & Skinner 2000: 491), it seems that two prefixes, i.e. gender markers, can be identified, even if the form for the 3rd degree absent is different for animates and inanimates: *i*<sup>4</sup>- for inanimates, and *a*<sup>3</sup>- for animates.<sup>100</sup>

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<sup>100</sup> This is even more evident if we compare this paradigm of pronouns with that of demonstrative determiners in Table 103, which are equal except for this gender marker.

**Figure 41.** Preferred semantic parameters in noun categorization devices.

Device	Typical semantics
Genders or noun classes	Animacy, humanness, physical properties, rarely nature or function
Numeral classifiers	Animacy, humanness, physical properties, nature, rarely functional properties
Noun classifiers	Social status, functional properties
Verbal classifiers	Physical properties, rarely animacy, nature
Relational classifiers	Functional properties
Possessive classifiers	Physical properties, nature, animacy, functional properties
Locative classifiers	Physical properties, rarely animacy
Deictic classifiers	Directionality, physical properties

**Table 128.** Demonstrative pronouns in Usila Chinantec.

	Inanimate	Animate
Proximal	<i>i<sup>4</sup>la<sup>3</sup></i>	<i>a<sup>3</sup>la<sup>3</sup></i>
Medial	<i>i<sup>4</sup>ne<sup>3</sup></i>	<i>a<sup>3</sup>ne<sup>3</sup></i>
Distal present	<i>i<sup>4</sup>jno<sup>3</sup></i>	<i>a<sup>3</sup>jno<sup>3</sup></i>
Distal absent	<i>i<sup>4</sup>jon<sup>3</sup></i>	<i>a<sup>3</sup>hain<sup>4</sup></i>

Demonstrative pronouns (used also as determiners) in Plains Cree also take some gender markers that distinguish animate/inanimate gender in both 1st and 2nd degree. Animates, moreover, distinguish obviation. Singular and plural number distinction is restricted to inanimates and proximate animates. Furthermore, obviative and inanimate plural forms are syncretic. The paradigm is provided in Table 129 (Wolfart & Carroll 1981 [1973]: 52).

**Table 129.** Demonstrative pronouns/determiners in Plains Cree.

Animacy	Obviation	Number	1st degree 'this'	2nd degree 'that'
Animate	Proximate	Sg	<i>aw-a</i>	<i>an-a</i>
		Pl	<i>ō-ki</i>	<i>an-iki</i>
	Obviative		<i>ō-bi</i>	<i>ani-bi</i>
Inanimate		Sg	<i>ō-ma</i>	<i>ani-ma</i>
		Pl	<i>ō-bi</i>	<i>ani-bi</i>

Michif, a language that traditionally did not have any animacy-based distinction, borrowed the demonstrative pronouns/determiners from Plains Cree (cf. Table 129). Note in example (216) that these demonstratives can co-occur with the article, which was borrowed from French. Examples come respectively from Corbett (2006: 269-270) and Bakker (1997: 109).

Michif. Mixed language, French-Cree.

- (216) a. *aw-a*                      *la*                      *fij*  
           this-NEAR.ANIM.SG    FEM.SG            girl  
           ‘this girl’
- b. *u:ma*                      *la*                      *bwet*  
           this-NEAR.INAN.SG    FEM.SG            box  
           ‘this box’

Other animate/inanimate system can be seen in the Tohono O’odham classifier system. In example (217), the animate classifier is added to a possessive construction (Aikhenvald 2013: 25).

Tohono O’odham. Uto-Aztecan.

- (217) *has-čū*            *šoi-g-ǰ*                                      *g*    *Huan*  
           what-thing    CLASS:ANIM-ALIEN-GEN            ART    Juan  
           ‘What kind of animal does Juan have?’

Animacy and sex often come together. There is a frequent masculine/feminine/neuter division that in some cases follows semantic (and not just formal) criteria. Mohawk, for



example, has some gender markers prefixed on the noun that distinguish masculine and feminine for animates, and neuter for inanimates. The masculine and feminine markers also distinguish number (Corbett 2000: 114-116).

Mohawk. Iroquoian.

(218) a. ra-ti-ksa'-okon-'a

PL.MASC-child-DISTR-DIM

'boys'

b. o-neni-a'-shon'a

NEUT-rock-NOUN.SUFFIX-DISTR

'various rocks'

In Polish, too, there are some sex-based gender (and number) markers suffixed to the verbal root. Table 130 shows the paradigm for the verb 'to be' in the past tense in Polish, whose sex-based distinction is also affected by animacy (Corbett 1991: 284; 2006: 251). As we can see, gender and number endings show in the plural a split among the masculine, leaving human (i.e. personal) masculine with *-i* and the remaining with *-y*.

**Table 130.** Past tense of the verb *być* 'to be' in Polish.

		Sg	Pl
Masculine	Personal		<i>był-i</i>
	Non-personal	<i>był</i>	
Feminine		<i>był-a</i>	<i>był-y</i>
Neuter		<i>był-o</i>	

But gender markers and classifiers can encode bigger gender systems. Let us provide some examples as a sample.

Yidiny has a big list of prefixed classifiers based on a rich semantic gender system. In this language there are three genders for humans (masculine, feminine, and person), together with a long list of other elements (Aikhenvald 2000: 83).

**Table 131.** Classifier system in Yidiny.

Inherent nature	Humans	Male	<i>waguja</i>
		Female	<i>bunya</i>
		Person	<i>bama</i>
	Fauna	Bird	<i>jarryy</i>
		Frog	<i>mangum</i>
		Ant	<i>munyimunyi</i>
	Flora	Tree	<i>jugi</i>
		Vine	<i>narra</i>
		Fire	<i>huri</i>
		Stone	<i>walba</i>
		Earth	<i>jabu</i>
	Artefacts	Spear	<i>gala</i>
		Bag	<i>bundu</i>
		Canoe	<i>baji</i>
	Function	Edible flesh	<i>minya</i>
Edible non-flesh		<i>mayi</i>	
Habitable		<i>bulmba</i>	
Drinkable		<i>bana</i>	
Movable		<i>wirra</i>	
Purposeful noise		<i>gugu</i>	

An example of the use of one of these classifiers is given in (219). However, classifiers may co-occur in free order. One must be inherent and the other functional, except for humans, which can have Person+Male/Female classifiers together (Aikhenvald 2000: 83).

Yidiny. Australian.

- (219) buri           birmar  
           CLASS:FIRE charcoal  
           ‘(hot) charcoal’

In Barasana-Eduria there are many classifiers, normally related to shape. Those encoding number (singular/plural) and sex or animacy (masculine/feminine in the singular and animate in the plural) are restricted to animates. The form *-u* is the masculine singular form, *-o* is the feminine singular one, and *-rã* is the animate plural (Jones & Jones 1991: 41-42). These classifiers appear in nouns, nominalized verbs, numbers, and attached to a genitive, for possession when the possessee is animate, as in example (220) (Jones & Jones 1991: 62).

Barasana-Eduria. Tucanoan.

- (220) bũ           ya-rã  
           2.PL       GEN-CLASS:ANIM.PL  
           ‘his kinsman or male pet’

Classifiers for inanimates in Barasana-Eduria do not encode number, and can be classified following Figure 42. Each of these has further subdivisions,<sup>101</sup> and the biggest class is that of shape (Jones & Jones 1991: 50 ff.).

**Figure 42.** Classification for inanimate classifiers in Barasana-Eduria.

- a. Shape
- b. Masses
- c. Designs
- d. Botanical
- e. Disassociated parts
- f. Geographical
- g. Manner-formed
- h. Abstract
- i. Associative
- j. General
- k. Residue

In the same way, in a language like Archi, gender agreement markers are determined, at least partially, by animacy, above all in the plural. Genders I and II denote human entities

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<sup>101</sup> These have not been provided for economy.

and genders III and IV denote nonhumans (Corbett 2006: 120). The gender system is provided in Figure 43 (Corbett 1991: 26-28, 158, 271; 2012: 239 ff.).

**Figure 43.** Gender system in Archi.

- I. Male rationals, God, spiritual male beings.
- II. Female rationals and spiritual female beings.
- III. Domestic animals, birds, insects, mythical beings, musical instruments, cereals, trees, water phenomena, astronomical, and meteorological phenomena.
- IV. Young animals and birds (wild or domestic), smaller wild animals and birds, tools, clothing, metals, liquids, and abstract concepts.

As pointed out by Corbett (1991: 28), apart from humanness for genders I and II, other semantic and morphological criteria apply: gender III includes big things or animals, and IV small ones (except for insects). Concrete objects are in gender III and abstracts in IV. On the other hand, nouns ended by *kul*, *mul*, or *t'i*, which are normally abstracts, belong to gender IV, nouns beginning in *b* or *m* or ending in *n* or *u* are in gender III, and some verbal nouns are also in gender IV. Exceptionally, two nouns ('people'/'nation' and 'population') belong to gender III in the singular, and to gender I/II in the plural (Corbett 1991: 170). Some nouns like 'child', 'thief', or 'poor person' can take gender I when a man is addressed, II for females, and even IV in the singular and I/II in the plural when sex is unknown or irrelevant (Corbett 1991: 181, 223). Finally, the word *lo* means 'man' when it takes the gender I marker, 'girl' with the gender II marker, and 'young animal' in gender IV. Gender (and number) prefixed markers in the verb can be seen in Table 132 (Corbett 1991: 158; 2006: 120).

**Table 132.** Gender-number verbal markers in Archi.

	Sg	Pl
I	<i>w-</i>	<i>b-</i>
II	<i>d- -r-</i>	
III	<i>b-</i>	$\emptyset$ -
IV	$\emptyset$ -	

Burmeso has a different gender system for verbal and adjectival agreement (Donohue 2001: 100, 102, 108). Gender markers are prefixing in the verbs, and suffixing in the adjective. Gender assignment rules are semantically conditioned, although animate/inanimate distinctions, being basic and crucial, are not straightforward, but also culturally molded

(Corbett 2012: 178). Verbs have a rich semantic system, and adjectives have a sex-based one, which is dependent on animacy.

**Table 133.** Verbal gender markers in Burmeso.

Gender assignment	Inflectional class 1		Inflectional class 2	
	e.g. <i>-ibi-</i> ‘see’		e.g. <i>-akwa-</i> ‘bite’	
	Sg	Pl	Sg	Pl
I male, some animals	<i>j-</i>	<i>s-</i>	<i>b-</i>	<i>t-</i>
II female, some animals	<i>g-</i>	<i>s-</i>	<i>n-</i>	<i>t-</i>
III miscellaneous, some animals, non-animate	<i>g-</i>	<i>j-</i>	<i>n-</i>	<i>b-</i>
IV mass nouns	<i>j-</i>	<i>j-</i>	<i>b-</i>	<i>b-</i>
V banana, sago tree	<i>j-</i>	<i>g-</i>	<i>b-</i>	<i>n-</i>
VI arrows, coconuts	<i>g-</i>	<i>g-</i>	<i>n-</i>	<i>n-</i>

**Table 134.** Adjectival gender markers in Burmeso.

	Sg	Pl
Masculine	<i>-ab</i>	<i>-od(o)</i>
Feminine	<i>-an</i>	<i>-od(o)</i>
Neuter	<i>-ora</i>	<i>-or(o)</i>
Masculine inanimate	<i>-ab</i>	<i>-or</i>
Feminine inanimate	<i>-an</i>	<i>-or</i>
Neuter animate	<i>-ora</i>	<i>-od</i>

So far we have seen a sample of different gender systems and different elements to which gender markers and classifiers can be attached. In the following examples we will see further targets of gender markers and classifiers, which are especially interesting.

In some languages, either the possessor or the possessed NP in a possessive construction may take a classifier. For instance, in the Puinavean language Dâw, an animate possessor will take the classifier *-êj*, whereas an inanimate possessor, although quite uncommon,

will take *-dee'* (Aikhenvald 2017: 375). It is more common for the possessed NPs to take a classifier that can be, among other factors, animacy-based.

There are languages in which numerals and quantifiers modifying a noun normally require a classifier, and although some of them are animacy-neutral, other are used only with human entities. That is the case for the classifier *-jon* in Bengali (Dasgupta 2003: 366-7, 379-383; Thompson 2012: 61),<sup>102</sup> and *lɔŋ* in the Mon-Khmer language Mal (Aikhenvald 2017: 371), in (222).<sup>103</sup>

Bengali. Indo-European.

- (221) tin-jon            mohilā  
           three-CLASS    woman  
           ‘three women’

Mal. Mon-Khmer.

- (222) ʔən    ʔuikhwan    thiat    poon    lɔŋ  
           I        have            child    four    CLASS:PERSON  
           ‘I have four children.’

Some nouns whose syntactic function is that of intransitive subject or object may use classifiers in the verb, and the Canadian language Haida, for instance, has a verbal classifier for animate beings (Aikhenvald 2017: 378).

Marind distinguishes four genders. I and II are restricted to male humans, and female humans/animates respectively. These gender markers appear in determiners and adjectives, by means of prefixes and infixes respectively (Corbett 1991: 116). Let us provide an example in (223).

Marind. Trans-New Guinean.

- (223) a. e-pe        anem        e-pe        akek        ka  
           I-DEF     man        I-DEF     light.I     is  
           ‘That man is light.’

<sup>102</sup> The animacy-neutral classifiers can be used after a noun as well, to denote a definite reading, but the animate *-jon* is barely used after a noun (Dasgupta 2003: 367).

<sup>103</sup> Numeral classifiers in Saaroa and other Formosan languages, however, have a pure human/nonhuman distinction (Aikhenvald 2017: 373).

Finally, I will comment on some cases in which even if gender assignment is not animacy-based (AnimF), agreement is conditioned by it (AnimC). In order to properly understand the examples, note that in Niger-Congo languages, genders 1 and 2 are commonly the canonical ones for humans, in the singular and plural respectively. Consider the example of Bemba in (224). In this language, the animacy of a conjoined subject NP is shown in the verb by means of a gender agreement marker. When conjoined NPs belong to different genders, the selection of the proper gender marker is based on animacy: when the NPs are animate, agreement is made by the gender 2 verbal prefix, but the gender 8 marker is prefixed when the NPs are inanimate. Equally, in Swahili, although gender assignment is not purely semantic, verbal gender agreement is more related to animacy. In this language, nouns denoting human beings tend to agree in the gender 1/2, as shown in example (225) (Corbett 1991: 252).

Bemba. Niger-Congo.

- (224) im-fumu    na    i-shilu        ba-aliile  
           9-chief     and    5-lunatic    2-left  
           ‘The chief and the lunatic left.’

Swahili. Niger-Congo.

- (225) rafiki                y-angu    a-mefika  
           friend(9/10)    9-my      1-arrived  
           ‘My friend has arrived.’

## 10. CASE MARKERS AND ADPOSITIONS

It is well known that animacy affects differential case marking. Sometimes, animacy determines the overt appearance of the case (cf. § 3.3), but in other situations, like those that will be treated here, it is the morpheme itself or its value that changes depending on the animacy of the morpheme to which it is attached. In some cases (§ 10.1), the case or adposition has alternative forms depending on animacy, i.e., animacy operates as a semantic feature (AnimF). In the examples studied in the second section (§ 10.2), animacy (AnimC) conditions the value of the feature of case and syncretisms, which are, actually, two sides of the same token, from a syntactic and from a morphological point of view. Case markers and adpositions have been treated together, on the one hand, because it not always easy to separate them, and on the other, because all of them encode semantic roles.





Xârâcùù. Austronesian

- (228) nâ fè mää pâädö rè nâ  
 1.SG go COM men DET 1.SG  
 ‘I go in company with my brothers.’

Once again, animacy-sensitive adpositions —especially locative ones, but also those encoding beneficiary or instrumental— are abundant in the Chinantecan languages. Although not all of them distinguish animacy, many instances can be found. In Table 135 I have gathered some instances of adpositions in Usila Chinantec, taken from Skinner & Skinner (2000: 547-548).

Some conclusions can be drawn from this table. First of all, it should be noted that adpositions with a locative meaning always have an animate and an inanimate counterpart: i.e. the phenomenon is systematic. Morphophonemic techniques or the affixation of  $-i^3$  are often employed to encode the animacy distinction. Those showing accompaniment, profit, or reference are more irregular. Some of them seem to be compounded: cf. *jian*<sup>23</sup> vs. *liab<sup>4</sup> ma<sup>3</sup> jian*<sup>23</sup>, or *quieb*<sup>1</sup> vs. *ne<sup>2</sup> quieb*<sup>1</sup>, with a form *ne<sup>2</sup>*, present also probably in *ta<sup>5</sup> ne<sup>2</sup>*. Moreover, the animate *i<sup>2</sup> con*<sup>23</sup>*i<sup>3</sup>* can have two meanings; ‘to, toward, from, with’ and ‘with reference to’, but the latter meaning does not have a formally similar inanimate counterpart.

As I have already stated, the addition of  $-i^3$  is a common device to mark animacy in the Chinantecan languages (see § 1.2.3). Consequently, we could say that in some cases the adpositions in Table 135 do not have alternative forms, but just the addition of this morpheme, as in example (229), provided by Skinner & Skinner (2000: 549). Having a morpheme restricted to animacy marking is not common, but there are examples in other languages, as I will show. These markers appear often as a way to allow cases canonically employed with inanimate entities to be added to animate ones (cf. Aristar 1997).

Chinantec, Usila. Otomanguean.

- (229) a. *jian*<sup>23</sup>      *o<sup>1</sup> sag*<sup>2</sup>      *ne*<sup>1</sup>  
 with.INAN sand this  
 ‘with the sand’
- b. *jian*<sup>23</sup>*i<sup>3</sup>*      *jeu*<sup>32</sup>  
 with.ANIM boss  
 ‘with their boss’

**Table 135.** Animacy-sensitive adpositions in Usila Chinantec.

Group	Gloss	Animacy	Form
Address or place	‘close to’	-	<i>blob</i> <sup>32</sup>
		+	<i>blonb</i> <sup>2</sup> <i>i</i> <sup>3</sup>
	‘to, toward, from, with’	-	<i>i</i> <sup>2</sup> <i>con</i> <sup>23</sup>
		+	<i>i</i> <sup>2</sup> <i>con</i> <sup>23</sup> <i>i</i> <sup>3</sup>
	‘between’	-	<i>je</i> <sup>1</sup>
		+	<i>jen</i> <sup>2</sup> <i>i</i> <sup>3</sup>
	‘around’	-	<i>la</i> <sup>4</sup> <i>co</i> <sup>4</sup> <i>la</i> <sup>4</sup> <i>lagb</i> <sup>5</sup>
		+	<i>la</i> <sup>4</sup> <i>co</i> <sup>4</sup> <i>la</i> <sup>4</sup> <i>lagb</i> <sup>5</sup> <i>i</i> <sup>3</sup>
	‘behind’	-	<i>cob</i> <sup>5</sup>
		+	<i>ta</i> <sup>4</sup> <i>cob</i> <sup>5</sup> <i>cab</i> <sup>32</sup> <i>i</i> <sup>3</sup>
	‘in front of’	-	<i>ta</i> <sup>5</sup> <i>nei</i> <sup>2</sup>
		+	<i>ta</i> <sup>5</sup> <i>nei</i> <sup>2</sup> <i>i</i> <sup>3</sup>
Accompaniment, profit, reference	‘instead of’	-	<i>niab</i> <sup>1</sup>
	‘with reference to’	-	<i>quieb</i> <sup>1</sup>
		+	<i>quieb</i> <sup>1</sup> <i>i</i> <sup>3</sup>
		+	<i>i</i> <sup>2</sup> <i>con</i> <sup>23</sup> <i>i</i> <sup>3</sup>
	‘with’	-	<i>jian</i> <sup>23</sup> , <i>liab</i> <sup>4</sup> <i>ma</i> <sup>3</sup> <i>jian</i> <sup>23</sup>
		+	<i>jian</i> <sup>23</sup> <i>i</i> <sup>3</sup> , <i>liab</i> <sup>4</sup> <i>ma</i> <sup>3</sup> <i>jian</i> <sup>23</sup> <i>i</i> <sup>3</sup>
	‘about, by’	-	<i>nei</i> <sup>2</sup> <i>quieb</i> <sup>1</sup>
	‘about, instead of, of benefit to’	+	<i>nei</i> <sup>2</sup> <i>quieb</i> <sup>1</sup> <i>i</i> <sup>3</sup>

An animacy marker *-i-* is affixed in the oblique case of Yanomamö. I have provided the forms in Table 136 (Aikhenvald & Dixon 1999: 347).

**Table 136.** Oblique case in Yanomamö.

	Inanimate	Animate
Non-peripheral	<i>-ba</i>	<i>-i-ba</i>
Peripheral	<i>-ba-mi</i>	<i>-i-ba-mi</i>

Moreover, Basque uses the affixation as well, as it also has a proper animacy-marking morpheme *-ga(n)-*, which is prefixed to the locative case markers, since these cannot be directly attached to an animate NP (Santazilia 2013: 227).

Basque. Language isolate.

(230) a. Iran-dik

Iran-ABL

‘from Iran’

b. lagun-a-gan-dik

friend-ART-ANIM-ABL

‘from a/the friend’

Kuvi has the same restriction as in Basque for the locative case, but also a specular one with the dative, which cannot be attached directly to inanimate entities. These must take a preposition, as shown in (231) (Kittilä, Västi, & Ylikoski 2011: 20). This is one of the few cases in which the animate form is more marked than the inanimate one.

Kuvi. Dravidian.

(231) a. āyana-ki

woman-DAT

‘to the woman’

b. ilu ta-ki

house PREP-DAT

‘to the house’

## 10.2. Case values and syncretisms

Case markers or adpositions can be equally affected by animacy as a condition, by determining their values or syncretism patterns.

In Bats, a North Caucasian language, there are two different markers to encode the agent, but the inanimate one uses a syncretic form with the instrumental (DeLancey 1981: 652, footnote). This occurs in many other languages.

Telugu has a syncretic form *-u* for nominative and accusative, except for the animate accusative, which has a proper form. Table 137 illustrates this phenomenon (Baerman, Brown, & Corbett 2005: 42).

**Table 137.** Plural noun declension in Telugu (only nominative and accusative).

	Inanimate 'houses'	Animate 'dogs'
Nom	<i>iḷlu</i>	<i>kukkalu</i>
Acc	<i>iḷlu</i>	<i>kukkalani</i>

The syncretism pattern is similar in Polish in regards to the accusative. However, the accusative form for animates is syncretic with the genitive. In the singular the nominative/accusative syncretism vs. the accusative/genitive one is based on animacy, whereas the split in the plural is that of masculine human vs. others, as can be seen in example (232) (Comrie 1989 [1981]: 132).

Polish. Indo-European.

(232) a. *widziałem chłopców* (vs. NOM *chłopcy*)

saw boys.ACC/GEN

'I saw the boys.'

b. *widziałem dziewczyny, psy, stoły*

saw girls.NOM/ACC dogs.NOM/ACC tables.NOM/ACC

'I saw the girls/dogs/tables.'

In Eastern Armenian the situation is quite similar to that of Polish regarding syncretisms (Baerman, Brown, & Corbett 2005: 47). Nominative and accusative are syncretic for inanimates as in Telugu or Polish, but animate objects are syncretic with another case, so that we cannot define an independent accusative form (Baerman, Brown, & Corbett 2005: 47, 224). In Polish the syncretism takes place with the genitive, and in Eastern Armenian with the dative. If we take into account just the nominative, accusative, and dative cases, syncretisms of Eastern Armenian can be arranged as in Figure 44.

**Figure 44.** Syncretism pattern in the Eastern Armenian case system.

	Inanimate	Animate
Nom	a	a
Acc	a	b
Dat	b	b

The most often mentioned syncretisms are those of Slavic languages, like the example of Polish, in which syncretism usually affects nominative and accusative in the case of inanimates, and accusative and genitive with animates. These syncretisms are restricted to some genders or numbers depending on the language. Let us illustrate this phenomenon with a partial paradigm of Russian (cf. Table 138), in which the syncretism affects all the animate nouns, but just in the plural (Baerman, Brown, & Corbett 2005: 215).

**Table 138.** Plural noun-declension in Russian.

	I		II		III		IV	
	‘student’ Anim	‘law’ Inan	‘teacher (F)’ Anim	‘map’ Inan	‘mouse’ Anim <sup>105</sup>	‘bone’ Inan	‘monster’ Anim	‘wine’ Inan
Nom	<i>studenty</i>	<i>zakony</i>	<i>učitel’nicy</i>	<i>karty</i>	<i>myši</i>	<i>kosti</i>	<i>čudovišča</i>	<i>vina</i>
Acc	<i>studentov</i>	<i>zakony</i>	<i>učitel’nic</i>	<i>karty</i>	<i>myšej</i>	<i>kosti</i>	<i>čudovišč</i>	<i>vina</i>
Gen	<i>studentov</i>	<i>zakonov</i>	<i>učitel’nic</i>	<i>kart</i>	<i>myšej</i>	<i>kostej</i>	<i>čudovišč</i>	<i>vin</i>

The last example provided here comes from the Northern Caucasian language Tsakhur (Kittilä, Västi, & Ylikoski 2011: 18-19). The ergative marker is syncretic both for animates and inanimates, but with different cases (Catford 1974: 16). Consequently, there is no autonomous form for agents.

Tsakhur. North Caucasian.

- (233) a. adam-e                      jizr<sup>z</sup>                      alebt’e  
 man-ERG/INES    bridge(III).ABS    III.destroy.PST  
 ‘The man destroyed the bridge.’

<sup>105</sup> These forms are provided as *miši*, *mišej*, and *mišej* in the source, which does not seem to be right.

- b. dama-n                    jizr<sup>z</sup>                    alebt'e  
 river-ERG/GEN    bridge(III).ABS    III.destroy.PST  
 'The river destroyed the bridge.'

## 11. POSSESSIVE AFFIXES/GENITIVES

Possessive affixes or genitives, which are not easily distinguishable in grammatical descriptions, may also be affected by animacy. Some languages, such as the Maipurean language Nanti (Aikhenvald 2013: 12), have different possession markers depending on animacy. It is interesting in this regard that both the possessor NP (§ 11.1) or the possessed one (§ 11.2) can be a controller of this animacy agreement.

### 11.1. Possessor as a controller

English provides a well-known example. In this language there are two different genitive forms: the postpositive *'s* and the prepositive *to*. The selection of one or the other is partially determined by the animacy of the possessor (Deane 1987).<sup>106</sup>

In the language Dâw, spoken in the Amazon, *-ëj* is the marker for an animate possessor, and *-dɛ:ʔ* that for an inanimate one (Martins & Martins 1999: 258). Compare the examples in (234).

Dâw. Puinavean.

- (234) a. yud            dɔw-tog-ëj  
 clothing human-female.child-POSS.ANIM  
 'The clothing is a girl's, or girl's clothing.'
- b. yak            kaw-wəʔ-dɛ:ʔ  
 manioc garden-up-POSS.INAN  
 'manioc from a garden'

In Nêlêmwa-Nixumwak, there is a set of bound nouns, which must be compulsorily possessed as they denote inalienable possession and close objects (kinship, relational/possessive classifiers, body parts, comitative/benefactive/malefactive relations, inherent

<sup>106</sup> A paper by Anne Rosenbach (2008) shows that the use of the Saxon genitive against the preposition is, first of all, dependent on animacy but in a gradual way, and also on topicality/definiteness, syntactic weight, word order, or even dialectal variation.

properties, time/modal, quantifiers, and so forth). These mark this possession by means of an affix that changes depending on the animacy of the possessor. A specific human possessor uses *-n* and inanimates (and nonspecific humans), *-t* (Bril 2013: 68-9).

Nêlêmwa-Nixumwak. Austronesian

- (235) a. kua-n  
           foot-POSS.ANIM  
           ‘his/her foot’
- b. kua-t  
           foot-POSS.INAN  
           ‘its foot (of a table)’

Moreover, some free nouns use a linker to mark possession. Specific humans use *i*, and nonspecific animates and inanimates use *o* (Bril 2013: 72).

Kashmiri, an Indo-European language, has an elaborate paradigm for the possessive marker, which agrees in sex and number with the possessed NP, but in animacy with the possessor to which it is postposed. Furthermore, among the animates, a distinction between proper and common nouns is made. See Table 139, taken from Koul (2003: 909).

**Table 139.** Possessive markers in Kashmiri.

Inanimate				Animate							
				Proper Nouns				Common nouns			
I				II				III			
Masculine		Feminine		Masculine		Feminine		Masculine		Feminine	
Sg	Pl	Sg	Pl	Sg	Pl	Sg	Pl	Sg	Pl	Sg	Pl
<i>-uk</i>	<i>-ik'</i>	<i>-ič</i>	<i>-iči</i>	<i>-un</i>	<i>-in'</i>	<i>-in'</i>	<i>-ini</i>	<i>-und</i>	<i>-ind'</i>	<i>-inz̤</i>	<i>-inz̤i</i>

**11.2. Possessed as a controller**

In other languages it is the possessed element that controls animacy agreement of the possessive affix. In the Hohôdene dialect of Baniwa (Aikhenvald 2003: 143; 2013: 19) alienably possessed nouns take a morpheme depending on the animacy of this possessed noun and the proximity between the possessor and the possessed. The forms have been included in Table 140.

**Table 140.** The possessive marker for alienable possessed nouns in Baniwa.

Inanimate	Animate	
	Proximate	Non-proximate
<i>-re</i>	<i>-te</i>	<i>-ni</i>

This is also illustrated in example (236).

Baniwa. Maipurean.

(236) a. mu-tʃɪnu-ni

1.SG-dog-POSS.PROX

‘my dog (the one I brought up)’

b. nu-tʃɪnu-te

1.SG-dog-POSS.NPROX

‘my dog (the one I found)’

## 12. CONJUNCTIONS

### 12.1. Coordinators

An end-of-list coordination in Nêlêmwa-Nixumwak is done by the morpheme *me* or *ma*, depending on the animacy of the coordinated elements. Inanimates use *me* whereas *ma* is for animates. It is not a postposition, but a medial marker (Bril 2004: 504).

Nêlêmwa-Nixumwak. Austronesian.

(237) a. hla khuxi mugic me, mido me, kuvic me...

3.PL eat.TR banana DEP taro DEP yam DEP

‘They eat bananas and taros and yams, and so on.’

b. hla oda-me hlaaleny aavak thaxamo i ye:

3.PL go.up-here these.DEICT four wife CONN 3.SG

horaamwaleny Naan ebai ma Naabuc ma Deedan  
this.woman. DEICT fly ANAPH COORD mosquito COORD horsefly

ma Nalôôp

COORD small.fly

‘His four wives come up here: Fly, and Mosquito, and Horsefly, and Small Fly.’



Two Austronesian languages related to Nêlêmwa-Nixumwak, namely Drehu and Nemi, have two different copulative conjunctions depending on some factors. In Drehu, *me* is used for tight/formulaic pairs, provided both NPs are animate. Otherwise, with non-formulaic definite pairs or inanimate entities, *memin* must be employed (Moyses-Faurie & Lynch 2004: 453). As can be seen in example (238), tightness overrides animacy. Nemi, in example (239), also has a coordination particle *ma* only available for proper nouns or definite animate common nouns (Moyses-Faurie & Lynch 2004: 454).

Drehu. Austronesian.

(238) a. la kem me thin i angeic  
 ART father and mother POSS 3.SG  
 ‘his father and mother’

b. angeic memin la thin i angeic  
 3.SG and ART mother POSS 3.SG  
 ‘he and his mother’

Nemi. Austronesian.

(239) jama o ven kac ma ven hnook  
 myth POSS ART man and ART woman  
 ‘the myth of the man and the woman’

## 12.2. Concessives

In Tuyuca, a conjunction meaning ‘although’ has an animacy distinction that is dependent on the subject. Animates also distinguish number and sex, in a hierarchical order: animacy > number > sex (Barnes 1994: 333).

**Table 141.** Concessive conjunctions in Tuyuca.

Animate			
Sg		Pl	Inanimate
Masculine	Feminine		
<i>-paki</i>	<i>-pako</i>	<i>-pakara</i>	<i>-pakaro</i>

Tuyuca. Tucanoan.

- (240) *Yaá-ri-paki*                      *kānī-hōã-wi*  
 eat-NEG-CONC:MASC.SG      sleep-completely-EV  
 ‘Although he did not eat, he fell asleep.’

### 12.3. Consecutives

Once again in Tuyuca, a consecutive conjunction agrees in animacy with the subject. Animates also distinguish number and sex, as illustrated in Table 142 (Barnes 1994: 334). Note that these are the same markers for some nominalizers in the present tense (cf. Table 143 in § 13); however, nominalizers attract stress, whereas these do not.

**Table 142.** Consecutive conjunctions in Tuyuca.

Animate			
Sg		Pl	Inanimate
Masculine	Feminine		
<i>-gi/-ŋi</i>	<i>-go/-ŋõ</i>	<i>-ra/-rã</i>	<i>-ro/-rõ</i>

### 12.4. Complementizers

Vlaams, spoken in Belgium, has a complementizer agreeing semantically in masculine, feminine, and neuter with the pronominal subject, but not with a common subject NP. The pronoun is usually omitted, unless stressed (Corbett 1991: 113-114).

Vlaams. Indo-European.

- (241) a. *datje*      (jij) *komt*  
 that.MASC (he) comes  
 ‘that he comes’
- b. *dase*      (jij) *komt*  
 that.FEM (she) comes  
 ‘that she comes’
- c. *dat*      (jij) *komt*  
 that.INAN (it) comes  
 ‘that it comes’

### 12.5. Relativizers

The Otomanguean languages, in which animacy is present abundantly in many elements of the sentence, also have examples of relativizers that change depending on the animacy of their agreement controller.

The Otomanguean language Me'phaa has a relativizer that agrees in animacy with its controller, as can be seen in the examples of (242) reflecting free speech of the Tlacoapa variety, and provided by Marlett (2012: 6). In (242a) the controller of the relativizer is a plant (inanimate), and in (242b), a bird (animate).

Me'phaa. Otomanguean.

- (242) a. *ri'i smáma ñejuun' mbá ri'i ndíi ríga*  
 plumerillo.rojo EST.COP.3.SG INDF flower REL:INAN EST.be(thing)  
*khúbá*  
 hill

'The plumerillo rojo is a plant that is characterized by his flowers, which can be found in the mountains.'

- b. *náa xuajin Míjuuí xtáa mbáa ñu'jun*  
 LOC village Tlacoapa EST.live.SG.3.SG.MF± INDF.3.SG bird  
*tsú mbi'jiuu xpu'phún'*  
 REL:ANIM name.3.SG owl

'In the village of Tlacoapa there is a bird that is called 'owl'.'

In the Chinantecan branch of Otomanguean languages, represented here by the Lealao variety in example (243) provided by Rupp (2009: 5), the split is easily noticeable.

Chinantec, Lealao. Otomanguean

- (243) a. *goo<sup>-</sup>-y he<sup>-</sup> gyoo<sup>-</sup>*  
 hand-3 REL:INAN swollen:INAN  
 'the hand that is swollen'

- b. *chih<sup>-</sup> hi<sup>-</sup> gyaa<sup>-</sup> (< gyaa<sup>-</sup>-y)*  
 child REL:ANIM swollen:ANIM  
 'the child that is swollen'



**Table 143.** Nominalizers in Tuyuca.

	Animate			Inanimate			
	Sg		Pl	Countable		Non-countable	Place
	Masculine	Feminine		Sg	Pl		
Present	<i>-gi/-ŋi</i>	<i>-go/-ŋõ</i>	<i>-ra/-rã</i>	<i>-ri+CLASS</i>	<i>-re+CLASS</i>	<i>-re</i>	<i>-ro/-rõ</i>
Past	<i>-rigi</i>	<i>-rigo</i>	<i>-rira</i>	Not specified for		<i>-rige</i>	<i>-riro</i>
Future	<i>-idi</i>	<i>-odo</i>	<i>-adara</i>	time		<i>-adare</i>	<i>-adaro</i>

A related language, Barasana-Eduria, has a large amount of deverbal nouns, and a complex system of nominalization. Nominalizers can be, on the one hand, the same as suffixed gender markers used also with nouns, and on the other, a suffixed system agreeing in sex/animacy, number, time, and space, like that in Table 144 (Jones & Jones 1991: 42). As in Tuyuca, there is sex and number distinction with animates, which is lacking with inanimates. However, at least based on the data provided by my source, not all slots can be filled.

**Table 144.** Nominalizers in Barasana-Eduria.

	Animate			Inanimate
	Sg		Pl	
	Masculine	Feminine		
PRES/PST PROX	<i>-gʰ</i>	<i>-go</i>		<i>-do</i>
far <sup>^</sup> PST/FUT <sup>^</sup> -PROX	<i>-kʰ</i>	<i>-ko</i>		<i>-to</i>
PRES/PST			<i>-rã</i>	<i>-ro</i>
-PRES <sup>^</sup> -PROX			<i>-dã</i>	

#### 14. COPULAR PARTICLES

A copular affix in Telugu, a Dravidian language from India, follows the pattern in Table 145. In the singular there is a masculine vs. everything else distinction, but in the plural, sex distinction is neutralized in favor of an animacy-based human/nonhuman one (Baerman, Brown, & Corbett 2005: 85).

**Table 145.** Copular particle in Telugu.

	Singular	Plural
Masculine	- <i>du</i>	- <i>ru</i>
Feminine	- <i>di</i>	- <i>ru</i>
Neuter	- <i>di</i>	-( <i>y</i> ) <i>i</i>

## 15. EVIDENTIALS

The Tucanoan language Tuyuca, spoken in Colombia and Brazil, makes an evidentiality distinction by means of a system of affixed morphemes that also agree in person (1, 2/3) and tense (present, past). The 3rd person is characterized also by a number and sex distinction. The paradigm is provided in Table 146, which has been adapted from Barnes (1994: 326). The label ‘others’ is especially interesting, as it includes 1st and 2nd person evidentiality markers, but also 3rd person inanimates. The syncretism of the form for 1st and 2nd person, canonically animate, with that of 3rd person inanimate is striking. Note as well that, due to this syncretism, only animate 3rd persons distinguish sex and number. In the present non-visual paradigm, the animacy distinction is restricted to the singular, since *-ga* is the form for the 3rd person animate plural, as well as for the inanimate one. See an example of the use of these evidentials in (247) (Barnes 1984: 257-258).

**Table 146.** Declarative evidentials in Tuyuca.

	Visual	Non-visual	Apparent	Second-hand	Assumed	
Past	other	- <i>ni</i>	- <i>ti</i>	- <i>yu</i>	- <i>yiro</i>	- <i>h̄iyu</i>
	3.MASC.SG	- <i>ni</i>	- <i>ti</i>	- <i>yi</i>	- <i>yigi</i>	- <i>h̄iyi</i>
	3.FEM.SG	- <i>no</i>	- <i>to</i>	- <i>yo</i>	- <i>yigo</i>	- <i>h̄iyo</i>
	3.PL	- <i>na</i>	- <i>ta</i>	- <i>ya</i>	- <i>yira</i>	- <i>h̄iya</i>
Present	other	- <i>a/-ã</i>	- <i>ga</i>	-	-	- <i>ku</i>
	3.MASC.SG	- <i>i/-ĩ</i>	- <i>gi</i>	- <i>h̄iĩ</i>	-	- <i>ki</i>
	3.FEM.SG	- <i>yo</i>	- <i>go</i>	- <i>h̄iõ</i>	-	- <i>ko</i>
	3.PL	- <i>ya</i>	- <i>ga</i>	- <i>h̄irã</i>	-	- <i>kua</i>

Tuyuca. Tucanoan.

(247) a. apé-wi

play-EV:VIS.PST.OTHER

‘We/you(sg/pl)/it played.’

b. díga apé-wi

soccer play-EV:VIS.PST.3.SG.MASC

‘He played soccer.’

## 16. CATALYZERS

Jaru, an Australian language, has an agreement catalyzer morpheme. This catalyzer takes a maximum of two bound pronouns agreeing in person (1, 2, 3), number (singular, dual, plural), and case (nominative, accusative, dative, locational) with the NPs of the sentence. Subjects and objects (direct or indirect) always show overt agreement in this catalyzer, but circumstantials do not. Among these, agreement in the catalyzer is controlled, first of all, by animacy, as all the animate NPs agree in the catalyzer irrespective of their functions. Among inanimates, function and type of nominal determine agreement (Tsunoda 1981: 141-142). In example (248), for instance, goal agreement is reflected in the catalyzer only if it is animate (Tsunoda 1981: 141-142).<sup>107</sup>

Jaru. Australian.

(248) a. ngaju nga-rna-**nyanta** yan-an **kunyarr-awu**

I.ABS CAT-1.SG.NOM-3.SG.LOC go-PRES dog-ALL

‘I go to the dog.’

b. ngaju nga-rna yan-an ngurra-ngkawu

I.ABS CAT-1.SG.NOM go-PRES camp-ALL

‘I go to the camp.’

Taking into account that all animates agree in the catalyzer, Tsunoda (1981: 141-142) summarizes the agreement for inanimates in this way:

- Overt agreement: Transitive or intransitive subjects, direct or indirect objects.

<sup>107</sup> This example is also given by Siewierska (2004: 155), taken equally from Tsunoda’s work, but making two mistakes in the transcription. On the one hand, the page number from the source is wrong. On the other, *ngurra* is translated as ‘dog’, instead of ‘camp’, making the example unintelligible.

- Non-overt agreement: Locatives (marking time, place, means, and so on) if they are not predicates of verbs of emotion, allatives or ablatives, or instrumentals.

Tsunoda (1981: 143) summarizes the agreement patterns as is shown in Table 147:

**Table 147.** Agreement system in Jaru.

Sentence part	Case marking of nominal	Pronoun	Animate noun	Inanimate noun	Case marking of bound pronoun
Transitive subject	ERG	+	+	+	NOM
Intransitive subject	ABS	+	+	+	
Direct object	ABS	+	+	+	ACC
Indirect object	ABS	+	+	Ø	DAT
	DAT	+	Ø	Ø	
	DAT-1	Ø	+	Ø	
	DAT-2	Ø	+	Ø	
Subjunct	DAT-1	Ø	+	Ø	LOC
	LOC	+	+	+	
	ALL	+	+	?	
	ABL	Ø	+	?	
	ABL-1,2	+	Ø	Ø	
Circumstance	INST	Ø	Ø	-	...
	DAT-1	Ø	Ø	-	
	DAT-2	Ø	Ø	-	
	LOC	Ø	Ø	-	
	ALL	Ø	Ø	-	
	ABL	Ø	Ø	-	

The first column shows the function an NP may have in the sentence. The second one shows the case marker this NP takes. Then the type of nominal (pronoun vs. common noun) and animacy (animate vs. inanimate) are shown. Note that pronouns and common



nouns do not always show agreement in the same way. Finally, in the last column, the case marker employed in the bound pronoun attached to the catalyzer is provided. Cases used in the NPs and those of the pronouns in the catalyzer are not the same: moreover, the cases in the NPs show an ergative system, and the cases in the catalyzer a simpler nominative one. Finally, the plus (+) means that there is overt agreement in the catalyzer, minus (-) means that there is no such agreement, and the zero-mark ( $\emptyset$ ) represents the fact that the slot cannot be filled, as the combination is not possible in the language.

Once again, the conclusion we can obtain is that animates always show agreement in the catalyzer irrespective of their function or case marking, that animate entities can never be circumstantials, and that these circumstantials, always inanimates, do not trigger overt agreement.

Recall that only two NPs can agree in the catalyzer at the same time. When, apart from the animate subject, any other two NPs should agree, only one can actually do it. The conflict resolution is also dependent on a hierarchy of scales, given in Figure 45 (Tsunoda 1981: 144).

**Figure 45.** Hierarchy of scales for overt agreement in Jaru.

- a. Animacy: human > nonhuman
- b. Person: 1 > 2 > 3
- c. Number: plural > dual > singular

In the example below, both the direct and the indirect objects should agree in the catalyzer, as both must agree irrespective of their animacy. However, in this case it is the indirect object ‘child’ that shows agreement and not the direct object ‘dog’, as the former is human (Tsunoda 1981: 144).

Jaru. Australian.

(249) *jaŋi-ŋgu mawun-du ŋa-la jɪŋ-a jaŋi-wu jambagina-wu*  
 one-ERG man-ERG CAT-3.SG.DAT give-PST one-DAT<sub>1</sub> child-DAT<sub>1</sub>  
*guɖara guɲar*  
 two dog  
 ‘One man gave two dogs to one child.’

Moreover, there are additional rules related to animacy. If both the subject and the object NP are animate, both agree in the catalyzer. However, if one of them is inanimate, only the animate shows agreement, even if it is not the subject. See these examples in (250) (Tsunoda 1981: 147).

Jaru. Australian.

- (250) a. guḍara-lu mawun-du ŋa-wula-anu wad̥baŋ-i murgun guṇar  
**two-ERG man-ERG CAT-3.DU.NOM-3.PL.ACC** throw-PST **three dog**  
 ‘Two men threw three dogs.’
- b. guḍara-lu mawun-du ŋa-wula wad̥baŋ-i murgun bamar  
**two-ERG man-ERG CAT-3.DU.NOM** throw-PST three stone  
 ‘Two men threw three stones.’
- c. guḍara-lu gandiŋaŋa-lu ŋa-anu murgun mawun biŋ-a  
**two-ERG lightnings-ERG CAT-3.PL.ACC three man** hit-PST  
 ‘Two lightnings hit three men.’

## 17. IDENTITY SUFFIXES

In Nkami there are some suffixes attached to the noun that give an identity meaning, similar to ‘like’ or ‘and so’. They make a humanness distinction, as the suffix attached to humans is *-anaamu*, and that for nonhumans is *-neemo* (Asante & Akanlig-Pare 2015: 82):

Nkami. Niger-Congo.

- (251) a. ayo-anaamu  
 thieves-and.so.ANIM  
 ‘thieves and so’
- b. amangu-neemo  
 mangoes-and.so.INAN  
 ‘mangoes and so’

## 18. WHATCHAMACALLIT WORDS

Whatchamacallit words are not a proper category. It would be more accurate defining them as semantically vacuous nouns or NPs. However, I have decided to include them as a section here, due to the rarity of the example.

In Hupdë, a direct object is overtly marked for case and number, under some circumstances related to animacy and definiteness. When this object is substituted by the whatchamacallit word *háʝ*, inflects for case and number under the same animacy and definiteness conditions as common nouns. Note in example (252) that since the object *cuḍádu*

is animate (and definite), it is marked with the plural object marker =n'ǎn, as does the whatchamacallit word co-referenced with it (Epps 2008: 714-715).

Hupdë. Puinavean.

- (252) núp háy=n'ǎn, cudádu=n'ǎn, híd ʔid-ʔay-píd-ay-áh  
 this um=PL.OBJ soldier=PL.OBJ 3.PL speak-VENT-DIST-INCH-DECL  
 'They spoke to, um, to some soldiers.'

## 19. SUMMARY AND CONCLUSIONS TO CHAPTER IV

This chapter has dealt with the grammatical and lexical categories that reflect formal variation depending on animacy, namely human/nonhuman, and/or animate/inanimate.

From a methodological point of view, as I have pointed out several times, animacy can operate as a semantic feature with its own values (AnimF), or as a condition (AnimC) of other features and their values (cf. § II.3.4). In this chapter both have been included. Furthermore, categories that undergo a change in their morphological material do not present any problem for classification, provided they are easily segmentable (cf. the case of tense markers in § 7), but those that add material can be classified either by the category of the added morpheme, or by that of the element that receives this morpheme. I have chosen the latter option, since results are more fruitful, and because since adding a morpheme implies intrinsically overt marking of new features, these will also be addressed in § V.

In some cases there are difficulties for defining the grammatical category of an element, due to the scarcity of data, differences between theoretical approaches, or the inherent properties of some categories, which make them ambiguous. Such problems have been treated in each section.

Pronouns (§ 1) have been studied without making any difference among free or bounded, since they tend to be related. Moreover, 3rd person pronouns are often demonstratives, and can be used as determiners as well. I have followed my data sources in order to distinguish pronouns from determiners, and pronouns from demonstratives. Even if in some cases this division is not clear, at least the examples provided fit the slot in which they have been classified, although they may belong to other categories as well under other circumstances.

Among personal pronouns (§ 1.1), in the third person, the animate/inanimate or human/nonhuman distinction is crosslinguistically very common, both for free and bounded

forms. In some cases, like that of Larike-Wakasihu, the animacy split is present in bound pronouns, but lacking in free ones. Pronouns may agree in animacy with the subject, the object, or both, as in Hõne. When 3rd personal pronouns originate in demonstratives, in many languages the inanimate form is homophonous with the demonstrative, and the animate one is a proper pronoun.

Often the animacy split is restricted to a set of 3rd person personal pronouns, i.e. it is dependent on some values (value > animacy). In regard to number, sometimes only the singular forms show the split, whereas in others it is the plural that has it. In systems bigger than those with just a singular/plural, it is still the plural value that has the animacy split, although there are exceptions, such as that of Larike-Wakasihu (Table 92). In sex-based gender system as well, the plural tends to show the animacy split more evidently. Apart from number, features like affectedness are significant: in some cases only affected forms have an animacy split, as in Abui. In other cases, after the animacy split, either animates or inanimates may differentiate further values (animacy > value), namely sex, age, deity, treatment, deprecatoriness, and marriage (cf. Zapotecan languages in Table 277). Usually subdivisions are richer among animates, but in some cases inanimates have subgroups lacking in animates, as can be seen in Swahili (Table 78).

I have suggested that in Abkhaz (Table 82) 3rd person pronouns do not have a clear animate/inanimate distinction, but that there is a peculiar system of inverse marking of animacy.

Apart from a bipartite human/nonhuman or animate/inanimate split, there are tripartite ones, which differentiate humans, animates, and inanimates, for instance in Sinhala.

In personal pronouns, animacy can appear in a way other than as a semantic feature. It can condition the overt marking of some features, or the values they may have in the pronoun. Animacy typically conditions plural agreement in personal pronouns, but also person, or direct/oblique marking. Moreover, non-semantic gender systems can be determined by animacy, as in Landoma, as shown in example (124).

Among indefinite pronouns (§ 1.2), the animacy split in Indo-European languages is frequent, but it is present also in other families such as Niger-Congo. Among animates, Bhojpuri also distinguishes honorability. Me'phaa, in example (126), provides us with an example of animacy as a controller of number and person agreement in the indefinite pronoun.

Demonstrative pronouns (§ 1.3) are interesting in Yidiny, since apart from an animate/inanimate distinction, there is a further one among the former that separates humans and higher animates on the one hand, and lower animates on the other. Kashmiri is a good example of an animacy distinction in pronouns, determiners, and demonstratives, which are equal. In some similar cases, demonstratives and pronouns being etymologically related, the animacy distinction is restricted to one of them, as in Lealao Chinantec, in example (127), which has the same forms for demonstratives and pronouns, but only the latter show the morphological and suprasegmental devices needed to mark an animacy distinction. Oriya and Nkami distinguish two degrees in demonstrative pronouns: proximal and distal, both for animates and inanimates, which, in the case of Nkami, is not found in the related demonstrative determiners. Languages like Trió (Table 90) discern even more degrees, beyond a main animacy distinction. The example of Nkami (Table 88) is good evidence of the difficulties for segmentation: I have suggested that, instead of considering that there is an animacy distinction in demonstrative pronouns, there could exist the possibility of identifying independent markers prefixed to them, but my data sources do not allow me to check this hypothesis. Finally, Barasana-Eduria has alternative constructions for animate and inanimate demonstrative pronouns, encoding different features as well.

Possessive pronouns (§ 1.4) may have an animacy distinction restricted to a subset of forms, as in the example of Larike-Wakasihü (Table 92). Possessive pronouns tend to agree with the possessor in different features including animacy, except in the case of Usila Chinantec, in which possessives agree in person and number with the possessor, but in animacy with the possessed NP.

The animacy split in interrogative pronouns (§ 1.5) is also common in languages all over the world, although the split is not necessarily extended to all the interrogatives. In some instances the constructions for animates and inanimates are different, as in Lealao Chinantec in example (130), and it is not difficult to find that these interrogatives also have sex distinctions. Systems like that of Hupdë (Table 95) are interesting, since animacy plays a crucial role in the morphological structure of interrogative pronouns, which are built upon a different base depending on their animacy. The structure in Nkami is different since the interrogatives add a [+animate] marker. Regarding semantics, Sinhala shows a tripartite split, with different forms for humans, animates and inanimates. Once again, Me'phaa provides an example in which animacy operates as a condition (AnimC) for person and number marking, and not as a semantic feature (AnimF).

Relative pronouns (§ 1.6), sensitive to animacy distinctions in many languages, are related to interrogative pronouns in some languages, especially in Indo-European ones. Moreover, apart from giving some examples of the animacy split in different languages, I have reported a new relative pronoun *thats* in English, whose expansion is related to animacy.

Determiners (§ 2), being related to pronouns, are not always easy to distinguish from pronouns in my data sources. However, they do not always behave in the same way in regard to animacy, even when they share the same origin. Concerning articles (§ 2.1), I have provided examples of animacy distinctions below a non-semantic masculine gender in Cappadocian Greek, and in Movima the split is restricted to the singular, with a further sex-based distinction, whereas in Biak the restriction covers only plural forms. Oriya shows how nonhuman articles can be added to humans, to show disrespect.

Regarding indefinite determiners (§ 2.2), apart from the split in Sinhala, Oriya is the example of a grammaticalization of the word ‘person’ to encode the animate form, and Me’phaa, in example (137), provides us with an example of animacy operating in an indefinite determiner as a controller of number and person.

Data from Me’phaa and Torwali show how demonstrative determiners (§ 2.3) and pronouns, when they are etymologically related, may have the same distinction of animacy or other features, or may not. On the other hand, it is not surprising that in Usila Chinantec animacy distinction in demonstratives is restricted to the farthest degree, that for entities we do not see and, consequently, whose animacy is unknown for the hearer.

As is the case in possessive pronouns, possessive determiners (§ 2.4) in Lealao, Ozumacín, and Usila Chinantec agree in number and person with the possessor, but in animacy with the possessed NP. However, this animacy agreement of the possessed NP is determined by the person and number of the possessor, since it is restricted to some values.

The section dedicated to nouns and noun phrases (§ 3) is special. These are always animacy controllers, and not targets. However, they may take different morphemes that mark overtly some features, such as number (§ 3.1), gender (§ 3.2), and case (§ 3.3). Other types of morphemes can also be attached to nouns, namely bound pronouns (§ 3.4), coordinators (§ 3.5), and affective markers (§ 3.6). In regard to number markers, it is common all over the world for overt plural marking in an NP to be restricted to animate or human entities. In other cases, when there is some optionality, animates tend to be marked more often and sometimes, following the Animacy Hierarchy, entities at the top may be compulsorily marked, and optionality or prohibition increases the more we descend down the hi-

erarchy. Jamamadí shows that number marking can also be overtly realized by adding a pronoun instead of a plural marker. With respect to gender, in some languages only animate nouns make sex distinctions by derivational suffixes. The example of Akan (cf. (148)) shows how animate entities tend to keep gender prefixes more than inanimates.

Animacy and case (§ 3.3) are tightly related: It is not difficult to find instances of NPs in a direct object—or other function—being overtly marked only if animate. Occasionally, the marker for the object and that for the dative are the same. In possessive constructions, some languages mark the possessor in the genitive if it is animate; otherwise, juxtaposition is employed. In some special cases, overt case marking in an NP is determined by the animacy of another NP. That is the case in the Kope dialect of Kiwai among others, in which the agent is marked with the ergative provided the object is animate; in Dyirbal the possessor is marked if the possessed NP is animate. Moreover, the restrictions for some cases, especially locatives that are attached to animate entities, force the use of alternative constructions.

Apart from morphemes encoding number, gender, and case, nouns and NPs may also take bound pronouns (§ 3.4) for different purposes. In many languages there are bounded nouns that must compulsorily take a bound pronoun. We have seen that, in some cases, nouns denoting humans or animates are always bounded, or, as in Hupdë, they are bounded only in the singular. In Kalam the object takes a pronoun provided it is animate and, in possessive constructions, animate possessors take bound pronouns in some languages, or it is the possessed NP that takes this pronoun depending on the animacy of its possessor. The example of Nêlêmwa-Nixumwak (Table 110) shows that in a language with different devices to encode possession, in cases of inherent ownership, bound pronouns are employed for human possessors. Finally, the example of Nkami in (165) is special, since there is a possessive pronoun that can only encode nonhuman referents. Apart from bound pronouns, I have shown that coordinators (§ 3.5) added to an NP may be animacy-sensitive, and we have seen that there is a special affective marker (§ 3.6) in Waorani that is also animacy-dependent.

Adjectives (§ 4), as a part of the NP, may show the same animacy effects as nouns in § 3, but they can also agree in animacy as a feature, unlike nouns, which are always controllers. Lealao Chinantec has both examples, since attributive adjectives agree in animacy, and predicatives take an overt bound pronoun. When animacy affects adjectives as an agreement controller, we have seen examples in which sex and number values can be modified.

Number markers (§ 5.1) are sensitive to animacy in many languages all over the world. The case of Guarequena is special, as animates use one marker, and humans and inanimates have another one, against the Animacy Hierarchy. Some crosslinguistic examples show that these plural markers may also be sensitive to honorability and respect, and there are examples in which the split is not one of animate/inanimate, but rather of human/nonhuman, leaving inanimates unmarked, as in the Gudandji dialect of Wambaya. Numerals (§ 5.2) can be affected by animacy by having different animacy-dependent forms, but also, as in Oriya, by taking an affixed plural marker with nonhumans, and a free one with humans. I have shown, likewise, that some numerals agree in other features apart from animacy: occasionally, animates agree in some features, and inanimates in others, as in Barasana-Eduria. Moreover, often only lower numerals show animacy agreement. The number system in Usila Chinantec shows that, apart from lower numerals, some elements in the compounding system used to build higher numerals may also undergo an animacy split. It is also possible to find animacy splits among other quantifiers (§ 5.3). Usually not all of them show the split, and the split is not always symmetric, that is to say, a quantifier available for animates does not always have a straightforward counterpart for inanimates, or vice versa.

Concerning verbal morphology (§ 6), animacy may operate in three ways: as a semantic feature (§ 6.1), as a condition for some features (§ 6.2), or defining the structure of a verb (§ 6.3). For a semantic distinction, a proper animacy marker can be added, as in the partial question in Abkhaz shown in example (190), but more often it is the root that undergoes a change. Both subjects and objects can be agreement controllers and, as in Klamath-Modoc, the distinction can be broader than that of animate/inanimate, with more complicated splits that, in the case of this language, are restricted only to the singular. Blackfoot provides a special instance of an affix merged with the root, marking transitivity and animacy, either of the intransitive subject or the specific object. At the same time, direct and inverse markers are different in this language, depending on animacy.

Animacy may operate as an agreement condition (§ 6.2) for other features in verbal morphology as well. There are several examples of bound pronouns that are attached to a verbal root when their controller is animate. These pronouns agree in person, and often also in number. The feature of number itself may also be encoded only in the verb, not in the NP and, in languages such as Lakota, overt number marking takes place when the subject is animate. Swahili (cf. (199)) provides an example of a verbal animacy marker that appears when the object is animate, but other features such as definiteness, salience, pre-



supposedness, new vs. old referring entities, and so on are also important. These features are not always expressed by bound pronouns, but by the inflection of the verb, as in Me'phaa, (cf. (200)), for some verbs that agree in person and number with the animate intransitive subject or the animate object. For overt verbal agreement, apart from the animacy of intransitive subjects or direct objects, their relative animacy, or that of the indirect object, is also significant in some instances. In languages such as Blackfoot, animacy may determine which argument must be encoded in ditransitive sentences, since only two arguments can be simultaneously marked in the verb: the role of the argument encoded by means of a bound pronoun is defined by a set of affixes attached to a root. In this language, as in Plains Cree, transitive verbs with (unspecific) inanimate direct objects behave as intransitives. Lastly, animacy may condition, apart from their overt marking, the values of features such as number or sex in the verb.

Besides overt marking of features, there are instances of animacy affecting verbal structure and morpheme order (§ 6.3). In Shambala, when two bound pronouns share some feature values, the bound pronoun that encodes the animate referent will be attached to the verbal root, before the other. In Southern Tiwa, different factors determine object incorporation. Among these we find animacy: inanimate objects are compulsorily incorporated in more environments, but animate objects are not. In Abui, only verbs that can have both animate and inanimate objects can take bound pronouns, irrespective of the animacy of their controller, and a type of verb in Teiwa uses a bound or a free pronoun in the verb, depending on the animacy of the object.

Some animacy-based splits observed in the verbal morphology of some verbs in the Dardic group seem to affect tense markers (§ 7). They have been treated in an independent section, since from my point of view, these are not part of the verbal root or stem, but they are independent morphemes, although in some cases they are not described in that way, and they are not easily segmentable.

Adverbs (§ 8) are a miscellaneous group, but I have identified animacy effects in negation (§ 8.1), comparison (§ 8.2), and manner (§ 8.3) adverbs. Among the former, different adverbs for negation show an animacy split, but in Sentani, it seems that the negativizer has a human/nonhuman split between existing controllers, and an animate/inanimate one between non-existing ones. The richness of Chinantecan languages regarding animacy-affected categories provides instances of animacy-splits in adverbs of comparison and manner as well.

Gender markers and classifiers (§ 9) are pervasively affected by animacy, together with other semantic features. They may be attached to different categories, such as nouns, adjectives, numerals, verbs, possessives, and genitives, although they are not always easily segmentable. In the paradigm of demonstrative pronouns in Usila Chinantec (Table 123), it seems that a prefixed gender marker with a different form for animates and inanimates can be proposed, instead of considering the whole pronoun as a target for animacy. Demonstratives in Plains Cree (Table 129) also have some gender markers with a main animate/inanimate distinction, before making further subdivisions such as obviation and number. Apart from an animate/inanimate distinction, some gender markers often have a sex-based one among animates, which in some cases is restricted to the singular forms. However, there are bigger gender systems in which the animate/inanimate split is just a part of a richer semantic distinction. In Yidiny, to cite just one example, groups for humans, flora, fauna, and artifacts can be made, together with some forms based on the function an NP may have. The possible combination of classifiers in Yidiny is also different for humans and the rest. In the big system of Barasana-Eduria, number and sex agreement in classifiers is restricted to animates, whereas inanimates are subdivided depending on their shape. In Archi (Table 132), too, there are some genders mainly for humans, and other for nonhumans, but they have additional subdivisions: The animacy-based split is clearer in the plural, since these subdivisions disappear, as holds also for Russian. The example of Burmeso (Table 133) demonstrates that different gender systems may coexist in the same language but, at least in this case, both are partially animacy-based. Some examples of Niger-Congo languages show how animacy can condition the value of a gender in verbal agreement, even if the system is not animacy-based, when two genders are in conflict for agreement.

Animacy may also be present in case markers and adpositions (§ 10) in two ways: as a semantic feature (§ 10.1) or as a condition of the value a case may have or the case-syncretisms within a paradigm (§ 10.2). The cases showing a split depending on animacy as a feature are those corresponding to the ergative, the goal, the associative, the comitative, some locatives, and the instrumental or beneficiary. The comitative in Xârâcùù has a form to encode a close relation, and two forms, one of them restricted to animates, so the animacy split is not systematic. In the Chinantecan languages there are many adpositions sensitive to animacy, especially —but not only— locatives, and most of them have both an animate/inanimate system, mainly thanks to the addition of the typical animacy marker in

this languages. Basque also has a proper animacy marker for locatives, and Kuvi adds a preposition to the dative to be added to an inanimate entity.

As pointed out before, animacy can also condition the value a case must take in a sentence or, from a paradigmatic point of view, the syncretisms between cases (§ 10.2). In general, animate paradigms are less syncretic than inanimate ones, or at least as syncretic as these. In some languages the inanimate agent and the instrumental one, or the nominative and the inanimate accusative, are syncretic. This nominative/accusative syncretism can be found only in a part of the paradigm, as in Polish, in which in the plural paradigm, the syncretism is restricted to masculine nouns. In Eastern Armenian the nominative/accusative syncretism for inanimates does not have a specific form for animate objects, since these are syncretic with the dative for indirect objects, which are prototypically animate. The most mentioned and well-known syncretism in a case system determined by animacy is that of Slavic languages. The pattern is similar to that of Armenian, but changing the dative with the genitive in the case of animates. These syncretisms are not extended to the whole paradigm, but are sensitive to number and sex, depending on the language. The example of Tsakhur is special, since it shows an ergative/inessive syncretism for animates, and an ergative/genitive one for inanimates: as a consequence, there is no autonomous marker for the agent.

Among possessive affixes or genitives (§ 11), which are not easily distinguishable, we may also find animacy-sensitive forms. What is interesting is that both the possessor NP (§ 11.1) and the possessed one (§ 11.2) can be the controllers of this animacy. The possessor determines the use of the Saxon genitive instead of the preposition *of* in English, as happens with the shape of the possessive marker in Nêlêmwa-Nixumwak, attached to compulsorily possessed nouns. In this language these markers are, first of all, dependent on specificity. There are bigger possessive systems that are also animacy-dependent, such as that of Kashmiri (Table 139). Interestingly, these markers agree in sex and number with the possessed NP, but in animacy with the possessor. In other cases, as I said earlier, it is the animacy of the possessed NP that is important for agreement in the possessive marker, as in the Hohôdene dialect of Baniwa, which also has a proximity distinction among animates.

I have identified different types of conjunctions (§ 12) with animacy-based splits. Coordinators (§ 12.1) have been identified in some Austronesian languages, but they are also sensitive to tightness of the attached NPs, and in some instances, to definiteness. Concessive (§ 12.2) and consecutive (§ 12.3) conjunctions in Tuyuca have an animacy split, followed by other splits based on number and sex. A complementizer conjunction with an

animacy and sex distinction can be found in Vlaams (§ 12.4). Relativizers (§ 12.5) showing animacy or humanness splits are common in the Otomanguean languages, as shown from different instances.

Some languages that have many deverbal nouns use nominalizers (§ 13). Those of Tuyuca show agreement in tense, number, place, sex, and countability, but they have a main animacy distinction above all. The paradigm of Barasana-Eduria also has tense-, number-, and sex-based splits, animacy being the most important distinction. Apart from these nominalizers, other special categories with an animacy distinction have been found, such as some copular particles (§ 14) in Telugu, and also a paradigm of evidentials (§ 15) in Tuyuca, which shows an animacy split in the third person with a striking syncretism against the extended Animacy Hierarchy, because it puts together forms for 3rd person inanimate and 1st and 2nd person. Animacy in the catalyzers (§ 16) of Jaru determines overt person and number agreement in a complex agreement system managed by different hierarchies, animacy being the most important. A special category in Nkami, namely identity suffixes (§ 17), agree in animacy, and even whatchamacallit words (§ 18) in Hupdë have this agreement as well, which is proof of the importance of animacy in this language.

## V. FEATURES

In this chapter I have studied how animacy intertwines with different grammatical features. I have shown that animacy and gender are specially attached (§ 1), but also that animacy exerts its influence on other features such as number (§ 2), person (§ 3), and case (§ 4). The main conclusions of this chapter have been summarized in § 5.

### 1. GENDER

Gender is the most important, widespread and, therefore, intricate feature in which animacy may be involved, since it operates as a condition (AnimC) as in the other features treated in this chapter, but also pervasively as a semantic feature (AnimF) in the configuration of gender systems (cf. § II.3.4). Consequently, the first section (§ 1.1) includes cases in which animacy is a basic semantic feature in gender systems, and thus an important feature for assigning a gender to an entity. After that, I will show that even in gender systems in which animacy is not significant as a feature, it can operate as a condition of gender-values (§ 1.2). Then it will be shown that often, animacy-based splits are not extensive to a whole paradigm, but may be restricted to a single value or a set of them (§ 1.3).

#### **1.1. Animacy as a semantic feature for gender assignment**

Languages with one or more than one gender system may determine the gender of a noun in several ways. When following semantic criteria, gender assignment takes place based on the inherent properties of the gender controller, such as animacy as a semantic feature (AnimF), sex, or shape among other properties. When non-semantic criteria apply, other factors irrespective of the inherent properties of the noun affect gender assignment. In some cases, however, both systems can be found in the same language. Evidently, it is in purely semantic systems or those in which a semantic system coexists with a formal one that animacy (AnimF) operates in a more extensive way, but also in non-semantic gender

systems animacy (AnimC) may condition overt gender agreement, or the values these genders must have.

In this section I will study the systems in which the gender is assigned by following only semantic criteria, animacy being, as a semantic feature, at least one of these (§ 1.1.1). Then I will analyze systems in which the gender system is defined by both semantic and non-semantic criteria at the same time, namely the mixed ones (§ 1.1.2). In the next section (§ 1.1.3), I have included the combined systems, which are those in which both semantic and non-semantic criteria are important for gender assignment, but both systems do not coexist in the same targets within a language. Finally, I have included a brief diachronic section in which I provide examples of gender systems that have developed into a semantic gender-system, and specifically into a system in which animacy plays a more significant role (§ 1.1.4).

#### *1.1.1. Semantic gender systems*

Animacy is an important or even crucial semantic feature in semantic gender assignment rules, because it is customary to have a gender system based only on animacy, or in the case of bigger systems, one or more than one genders restricted (mainly) to animates or humans. Moreover, pure animacy interacts with other semantic or internal features like sex, shape, and so on, but as far as I know, there are few semantic-based systems that do not include animacy among the important features for defining one or more than one gender-value in the system.<sup>108</sup> As I will show, the number of semantically assigned genders can be broader or narrower, and gender agreement is more widespread in some languages than in others, but animacy is a feature somehow always present.

Section § 1.1.1.1 includes examples in which the gender system is just based on animacy. In section §1.1.1.2 I have studied semantic systems that, apart from animacy, have more semantic features for gender assignment. Then, I have shown how in semantic systems, cultural factors are also important for gender assignment (§ 1.1.1.3), and finally, I have provided instances of different semantic systems coexisting in the same language that affect different targets (§ 1.1.1.4).

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<sup>108</sup> Although some presumed counterexamples will be addressed in this section.

## 1.1.1.1. Purely animacy-based systems

The most basic animacy-based gender distinction is bipartite, with a human/nonhuman distinction as in North American Chinook (Aikhenvald 2000: 77) or animate/inanimate as in Highland Oaxaca Chontal from Mexico (Aikhenvald 2000: 80), for instance. This system is found also in other language families: Igbo (Niger-Congo) has an opposition between human and nonhuman (Aikhenvald 2000: 77), and the animate/inanimate distinction is crucial in many categories of the Chinantecan languages: see as a simple instance the paradigm of demonstrative pronouns in Usila Chinantec in Table 148 (Skinner & Skinner 2000: 491). That is the case, too, among other languages: in Finnish 3rd person pronouns in Table 149 that make just a human/nonhuman distinction (Comrie 1989 [1981]: 191), similar to that which we find also in the paradigms of Grebo (cf. Table 51 in page 155) (Corbett 1991: 200), and those of Persian (Ortmann 1998: 77), and Dagbani (Siewierska 2004: 104) (Cf. Table 52 and Table 53 in pages 155 and 156 respectively).

**Table 148.** Demonstrative pronouns in Usila Chinantec.

	Inanimate	Animate
Proximal	<i>i<sup>4</sup>la<sup>3</sup></i>	<i>a<sup>3</sup>la<sup>3</sup></i>
Medial	<i>i<sup>4</sup>ne<sup>3</sup></i>	<i>a<sup>3</sup>ne<sup>3</sup></i>
Distal present	<i>i<sup>4</sup>jno<sup>3</sup></i>	<i>a<sup>3</sup>jno<sup>3</sup></i>
Distal absent	<i>i<sup>4</sup>jon<sup>3</sup></i>	<i>a<sup>3</sup>hain<sup>4</sup></i>

**Table 149.** 3rd person personal/demonstrative pronoun in Finnish.

	Human	Nonhuman
Sg	<i>hän</i>	<i>se</i>
Pl	<i>he</i>	<i>ne</i>

Even in bigger 3rd person pronominal systems such as that of Hõne, in Table 150 (Storch 2013: 211), we find this bipartite split.





which is restricted to inanimates (Thompson 2012: 61). Similarly, Jakalteko has a big classifier system. However, two classifiers are defined by animacy: *jan* is used for humans and *no7* for animals, as shown in example (255) (Aikhenvald 2000: 82).

Bengali. Indo-European.

(254) tin-jon      mohilā  
           three-CLASS woman  
           ‘three women’

Jakalteko. Mayan.

(255) xil    naj            xuwan    no7                    laba  
           saw   CLASS:HUM John    CLASS:ANIMAL    snake  
           ‘John saw the snake.’

Likewise, note in the paradigm for verbal gender markers in Burmeso (Table 151) that, whereas the gender for animals, for instance, is not easy to define because these are scattered along three different genders including other entities, humans are strictly in genders I and II (Donohue 2001: 100, 102, 108).

**Table 151.** Verbal gender markers in Burmeso.

Gender assignment		Inflectional class 1		Inflectional class 2	
		e.g. <i>-ibi-</i> ‘see’		e.g. <i>-akwa-</i> ‘bite’	
		Sg	Pl	Sg	Pl
I	male, some animals	<i>j-</i>	<i>s-</i>	<i>b-</i>	<i>t-</i>
II	female, some animals	<i>g-</i>	<i>s-</i>	<i>n-</i>	<i>t-</i>
III	miscellaneous, some animals, non-animate	<i>g-</i>	<i>j-</i>	<i>n-</i>	<i>b-</i>
IV	mass nouns	<i>j-</i>	<i>j-</i>	<i>b-</i>	<i>b-</i>
V	banana, sago tree	<i>j-</i>	<i>g-</i>	<i>b-</i>	<i>n-</i>
VI	arrows, coconuts	<i>g-</i>	<i>g-</i>	<i>n-</i>	<i>n-</i>

As already mentioned, animacy may appear together with other semantic features. The old numeral classifier system in Chamorro, which has been nowadays substituted by the Spanish system, had three different gender agreement markers. Gender I was for animates,

II for inanimates, and gender III for linear measures (Nichols 1992: 137). In this case, then, animacy coexists with another semantic feature, namely measures.

The subdivisions of 3rd person pronouns in Pirahã are curious. There is a basic animate/inanimate distinction. Animates have a common sex-based subdivision. Animates, however, separate aquatic and nonaquatic ones. See Table 152 (Aikhenvald & Dixon 1999: 355).

**Table 152.** 3rd person singular pronouns in Pirahã.

Human		Animate		Inanimate
General	Feminine	Nonaquatic	Aquatic	
<i>hɪ³</i>	<i>ʔɪ³</i>	<i>ʔɪ'kɛ</i>	<i>sɪ³</i>	<i>ʔa³</i>

Plants appear recurrently in semantic gender systems together with animacy but kept apart from it, so they are almost never treated as animate entities, unless they are considered deities. The Australian language Limilngan has four genders: humans, animals, plants, and everything else, and the Australian language Wardaman has the same system, but with a single gender for humans and animates (Aikhenvald 2000: 59). That is the case also for Hopi, a Uto-Aztecan language, which distinguishes animates, inanimates, and vegetables (Aikhenvald 2000: 80). For Proto-Lower-Sepik, Foley (1991: 27) reconstructs a system that includes animates, plants, and other genders that are not assigned semantically. Thus, in the Lower Sepik family (except in the North branch) we find systems that fit more or less this pattern, like that of Angoram and Chambri. In Yimas, in the same family, the first four genders are semantically assigned, although they also fit some morphophonological conditions. There are two genders for humans (males and females), another for higher animals, and a fourth one for important plants and elements derived from these. The system is mixed (cf. § 1.1.2), as the remaining genders (up to eleven) are phonologically assigned, and gender V contains those entities that fit neither semantic nor phonological criteria (Corbett 1991: 55-56). The Trans-New Guinean language Marind includes male humans in gender I, female humans and animals in gender II, gender III includes plants and trees, and gender IV is employed for everything else (Corbett 1991: 116; 2000: 59-60). Agreement is shown in determiners and adjectives, but these four genders are only fully distinguishable in the singular of the adjectives, as I have summarized in Table 153.

**Table 153.** Gender markers in Marind.

	Determiner		Adjective	
	Sg	Pl	Sg	Pl
I	<i>e-</i>	<i>i-</i>	<i>-e-</i>	<i>-i-</i>
II	<i>u-</i>	<i>i-</i>	<i>-u-</i>	<i>-i-</i>
III	<i>e-</i>	<i>e-</i>	<i>-a-</i>	<i>-a-</i>
IV	<i>i-</i>	<i>i-</i>	<i>-i-</i>	<i>-i-</i>

A semantic gender including shape or state is also recurrent. Yucatec Maya has four different classifiers that include animates and inanimates, and also trees. The fourth gender is related to shape, including long slender objects (Ortmann 1998: 78). Mampruli adds a gender for liquids to the animate/inanimate distinction (Corbett 1991: 259). The classifier system in Barasana-Eduria is large (cf. Figure 42). The forms can be grouped following different criteria, and each of these groups has further subdivisions. The biggest group is that of shape and includes forms for concave bowls, pot shapes, protrusion/mound/hump, crooked shapes, empty circles, spherical shapes, cylinders, square box shapes, flat planes, pointed shapes, funnel shapes, thin, long shapes, and hour glass shapes (Jones & Jones 1991: 50 ff.).

The treatment of deities and supernatural entities is irregular among gender systems. In some cases deities are put together with humans, especially when they have a sex assigned, whereas in other cases they have a proper gender. Archi classifies some spiritual beings together with male or female humans (see Figure 43 in page on page 242) (Corbett 1991: 26-28, 158, 271; 2012: 239 ff.), but some of them are also in gender III (Corbett 2006: 120). The Zapotec of Santa María Quiegolani (Marlett 2010: 11-18), for instance, employs the same 3rd person personal pronouns for both deities and humans, but other Zapotecan languages (cf. Appendix I) have separate forms. Equally, the Mixtec of San Miguel el Grande has a gender for humans with a further masculine/feminine split, another gender for animates, and a fourth one for deities (Siewierska 2004: 86-87).<sup>109</sup>

<sup>109</sup> Deities have been addressed also in § V.1.1.1.3.

As shown in some of the previous examples, sex is one of these semantic distinctions that appear in a recurrent way, splitting human and/or animate entities between masculine and feminine, depending on their biological sex. This is the system we can find in personal pronouns, articles, and verbal agreement of Ignaciano (Aikhenvald 2000: 69). It is also present, among many other elements, in the personal pronouns of Defaka (Corbett 1991: 12) and in Kolami lower numerals,<sup>110</sup> as can be seen in example (256) (Corbett 1991: 168). Note that sex distinction is restricted to humans in this case.

Kolami. Dravidian.

- (256) a. iddar        ma'sur  
           two.MASC    men  
           'two men'
- b. i'ral        pillakul  
           two.FEM    women  
           'two women'
- c. indin        sidl  
           two.NEUT    buffaloes  
           'two buffaloes'

Sex distinction may also be present in systems that were already tripartite (human, animate, inanimate). As we will see, this sex distinction may affect only human nouns, or both human and animate nouns. 3rd person pronouns in Sinhala distinguish sex in both humans and animates, as shown in Table 160 (Gair 2003: 783). However, in this language, sex distinction is available only for singular forms, and it is only employed for female entities, when defining the sex is important; otherwise, the default form is used.

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<sup>110</sup> Otherwise, there is a masculine/everything else system. Cf. § V.1.1.2.

**Table 154.** 3rd person personal pronouns in Sinhala.

	Animate						Inanimate	
	Human			Nonhuman			Sg	Pl
	Sg		Pl	Sg		Pl		
	Defl	Fem		Defl	Fem			
1 Prox	<i>meyaa</i>	<i>mææ</i>	<i>meyaala</i>	<i>meeka/muu</i>	<i>meeke</i>	<i>meekeṁ/muṁ</i>	<i>meekeə</i>	<i>meewa</i>
2 Prox	<i>oyaa</i>	-	<i>oyaala</i>	<i>ooka</i>	<i>ooki</i>	<i>ookuṁ</i>	<i>ookə</i>	<i>oowa</i>
Distal	<i>areya</i>	-	<i>areyala</i>	<i>arəka/aruu</i>	<i>arəki</i>	<i>arəkeṁ/arūṁ</i>	<i>arəkeə</i>	<i>arəwa</i>
Anaph	<i>eyaa</i>	<i>ææ</i>	<i>eyaala</i>	<i>eeka/uu</i>	<i>eeki</i>	<i>eekuṁ/uṁ</i>	<i>eekə</i>	<i>eewa</i>

Likewise, the Danish personal pronouns in Table 155 (Corbett 1991: 247) as well as those of Swedish add a further gender for animals, as shown in Table 84 (Ortmann 1998: 77). This language has developed a new system in personal pronouns from a former masculine/feminine/neuter system that was already semantic. Animals, formerly belonging to the masculine or feminine gender, have their own gender now, leaving sex distinction available only for humans (Ortmann 1998: 77). The situation is similar in Zande, which also has four genders, in the same terms (Corbett 1991: 14), and for Barasana-Eduria, whose masculine/feminine distinction is restricted to humans, in the singular (cf. Table 162) (Jones & Jones 1991: 73-75).

**Table 155.** Nominative 3rd person personal pronouns in Danish.

Male human nouns	Female human nouns	Remaining nouns of common gender	Neuter nouns
<i>han</i>	<i>hun</i>	<i>den</i>	<i>det</i>

**Table 156.** Bound pronouns in Barasana-Eduria.<sup>111</sup>

	Animate			Inanimate
	Sg		Pl	
	Masculine	Feminine		
1	-ba	-ba	-ba	-ba
2	-ba	-ba	-ba	-ba
3	-bõ	-bĩ	-bã	-ba

At this point, I will discuss some examples of animacy and sex interaction, and contend that gender assignment is purely semantic in these. In the Indian language Kolami (Corbett 1991: 168; Aikhenvald 2000: 23), the Central Solomons language Savosavo (Corbett 2012: 118-119), in the Australian languages Dieri (in the pronominal system) and Dizin (Corbett 1991: 11; Aikhenvald 2000: 23), in the verbal and adjectival agreement of the British Columbian language Halkomelem (Corbett 1991: 11), in the African language Zaysete, as well as in Kaingang from Brazil and in some Arawakan languages (Aikhenvald 2000: 23), animate entities belong to their respective biological sex, but non-sexed animates and inanimates are always masculine (see Figure 46). In Kala Lagaw Ya (Aikhenvald 2000: 23, 56), otherwise, the rule is inverse (see Figure 47). In all these examples, animacy operates in a first step, separating animate from inanimate entities. Thereafter, a further sex-based distinction is made among animates. However, inanimates and male/female animates being syncretic, gender is semantic for animates, and seems to be arbitrary for inanimates. Nevertheless, it is hard to know which rule is followed by inanimates to be assigned to the masculine or feminine gender, so in my opinion, it would be more accurate for all these languages to consider that there is a masculine (Figure 46) or feminine (Figure 47) gender vs. a default one, so that it is not necessary to include inanimate entities in a masculine or feminine gender, but it is in a default one. The approach employed so far implies that inanimates take the gender of an animate entity (feminine in the case of Kala Lagaw Ya, and masculine in the rest) in an arbitrary way, but I think it is more advantageous considering that there is a default gender, and that in a language like Kala Lagaw Ya, for instance, it is the male human that takes a proper gender. This view is supported by data from the Ara-

<sup>111</sup> The realis tense of reportative uses a different paradigm.

wakan language Wayuu, spoken in Venezuela. This language fits the pattern in Figure 46. However, if the sex of an animate entity is unknown, the “masculine” form is used (Corbett 1991: 220). Undoubtedly, considering this “masculine” gender as a “default” gender is more accurate, since it includes inanimate (non-sexed) entities as well as those animate entities whose gender is not important. This being the case, we could argue that gender assignment is completely semantic, since there is no-gender or default gender at the basis, and only animates can take biological masculine or feminine gender, depending on the language. This new approach implies the acceptance of sex-based gender systems in which the existence of a masculine gender does not imply the existence of a feminine one, or vice versa.<sup>112</sup>

**Figure 46.** Masculine=Male/Inanimate gender agreement.

	Animate	
Inanimate	Male	Female
MASC	MASC	FEM

**Figure 47.** Feminine=Female/Inanimate gender agreement.

	Animate	
Inanimate	Male	Female
FEM	FEM	MASC

There are even bigger semantic gender systems. I will cite here just some instances. 3rd person personal pronouns in some Zapotec languages are a good example of subdivisions among animates, other than just sex. Some of these languages have a main human/nonhuman distinction. Nonhumans make a difference between animates and inanimates, and humans always have further subdivisions related to sex, formality, age, and others.<sup>113</sup> Whatever the combination of gender is used, there is never a syncretism between

<sup>112</sup> This can be found in 3rd person personal pronouns in Sinhala, for instance (cf. Table 154), or in Marind in Table 153, since there is a default gender for animates (females humans and animals), and a different one for male humans.

<sup>113</sup> Further aspects may also be important. For instance in Coatecas Altas, Quioquitani-Quieri, Texmelucan, and Mitla Zapotec the sex of the speaker is involved. In Amatlán Zapotec and in Texmelucan some forms are related to colloquial speech.

humans, animates, and inanimates. The system for many Zapotecan languages has been summarized in Appendix I (Marlett 2010: 11-18).<sup>114</sup>

The Ngangikurrunggur dialect of Ngan'gityemerri, spoken in Australia, has nine genders if we cross the markers used in the nouns, those used in adjectives and those for possessives (Corbett 1991: 140). As can be seen in Figure 48, genders VII and VIII are for humans (masculine and feminine), animals have their own gender, but also dogs have it, plants and trees are also present, as are weapons, and kinship terms and body parts are semantically important.

**Figure 48.** Gender system in the Ngangikurrunggur dialect of Ngan'gityemerri.

- I. Most natural objects, kinship terms, some body parts
- II. Hunting weapons
- III. Most body parts
- IV. Trees, most wooden implements
- V. Most animals hunted for meat
- VI. Edible plants
- VII. Male animates (excluding dogs)
- VIII. Female animates
- IX. Canines

Another language with a big semantic gender (shown in a prefixed classifier system) is Yidiny. In this language there are three genders for humans (masculine, feminine, and person), together with a long list of other elements, as can be seen in Table 157 (Aikhenvald 2000: 83).

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<sup>114</sup>The Zapotec languages included in the table are: Amatlan, Cajonos, Chichicapan, Choapan, Coatecas Altas, Isthmus, Lachixío, Mitla, Ocotlán, Quijoquitani-Quieri, San Juan Guelavía, San Vicente Coatlán, Santa Inés Yatzechi, Santa María Quiogolani, Santiago Xanica, Santo Domingo Albarradas, Texmelucan, Tilquiapan, Xanaguía, Yalálag, Yatzachi, and Zoogocho.



**Table 157.** Classifier system in Yidiny.

Inherent nature	Humans	Male	<i>waguja</i>
		Female	<i>bunya</i>
		Person	<i>bama</i>
	Fauna	Bird	<i>jarryy</i>
		Frog	<i>mangum</i>
		Ant	<i>munyimunyi</i>
	Flora	Tree	<i>jugi</i>
		Vine	<i>narra</i>
		Fire	<i>huri</i>
		Stone	<i>walba</i>
		Earth	<i>jabu</i>
	Artefacts	Spear	<i>gala</i>
		Bag	<i>bundu</i>
		Canoe	<i>baji</i>
	Function	Edible flesh	<i>minya</i>
Edible non-flesh		<i>mayi</i>	
Habitable		<i>bulmba</i>	
Drinkable		<i>bana</i>	
Movable		<i>wirra</i>	
Purposeful noise		<i>gugu</i>	

I will close this section by studying a special phenomenon, found, among other languages, in Turkana, a Nilo-Saharan language from Kenya, Ket, a Yeniseyan language from Russia, and Khwe, an African Khoe-Kwadi language. These languages have a tripartite gender system, and unlike in the previous cases included here, in these cases there is no morphological difference between animates and inanimates: both have a masculine/feminine/neuter system. The difference lies in the rule employed for gender assignment. For animates, masculine and feminine genders are assigned by biological sex, but

obviously, inanimates are not. It is not a mixed system like those in § 1.1.2, as in the cases included here gender assignment is also semantically determined for inanimates, but it depends on semantic features other than those for animates. In the case of Turkana, size, or paradoxically, life, are important, as can be seen in the examples in (257) (Aikhenvald 2000: 42-43). In this set of examples, among animates, masculine, and feminine gender is assigned depending on the biological sex, and the neuter is employed with babies. Among inanimates, some of them have just two forms: masculine and feminine; for instance, trees or grass. These take the masculine classifier when they are green or growing, and the feminine when they are dead or dry. Other inanimates have three forms (masculine, feminine, and neuter), depending on their size. In Ket, animate entities are assigned to a sex even when this is not evident, as with inanimate entities, depending on their importance for the Ket community. Fishes are masculine but some are feminine, maybe according to their importance for the Ket people. Large wooden objects and big trees are masculine because of their importance (small objects are neuter). Parts of wholes are neuter, and mythology determines the gender of some words like sun, fire, moon, foxes, and religious items; however, there are some nouns in the three genders whose motivation for taking a gender is not easily explainable (Corbett 1991: 19-20; Aikhenvald 2000: 23). Moreover, gender can vary in some inanimate entities. That is the case for trees, which are masculine when growing, inanimate if they are cut-down, and feminine if they are curved (Aikhenvald 2000: 42). Finally, in Khwe, there is no neuter gender. All the entities are masculine or feminine. In the case of inanimates, gender is assigned depending on their shape: big, long, rectangular elements are masculine and small, round, broad ones, feminine. As in Ket, an element may vary its gender depending on the shape when it is inanimate, as can be seen in (258) (Aikhenvald 2000: 42).

Turkana. Nilo-Saharan.

(257) a. a-geṭe`

FEM-antelope

‘female antelope’

b. e-geṭe`

MASC-antelope

‘male antelope’

- c. i-ge-te`  
NEUT-antelope  
'small antelope (of either sex)'
- d. e-mor-u`  
MASC-...  
'rocky mountain, big stone'
- e. a-mor-u`  
FEM-...  
'hill stone'
- f. i-mor-u`  
NEUT-...  
'pebble'

Khwe. Khoe-Kwadi.

- (258) a. ngú-mà  
hut-MASC  
'big, rectangular hut'
- b. ngú-è  
hut-FEM  
'small, round hut'

Although I do not have enough data, at least those provided here can be interpreted in another way, in which animacy is not important. I could state that it is always shape or importance that defines gender, even for animates. In the case of Turkana, if we consider that male antelopes are bigger than female ones, and both, obviously, bigger than small antelopes, size can be taken as the only significant feature for gender assignment, irrespective of animacy. In Ket the feature would be importance, considering that male humans are culturally more important. For Khwe, size and shape could be the determinant features for gender assignment for both animates and inanimates. This would imply accepting, on the one hand, that animacy is not important for gender assignment in these languages, which is crosslinguistically very strange, and on the other, that sex-based labels for gender are not accurate. However, as pointed out before, I do not have enough data to demonstrate this point.

### 1.1.1.3. Systems based on semantic features, affected by cultural factors

It is common to find some leaks in a theoretically strict semantic based system. A gender that includes mostly humans or animates may also include other inanimate entities. Likewise, humans, being mainly in a gender, may also be found scattered in other genders. It is not easy to pinpoint the factors that govern these fluctuations. As pointed out in §§ 1.1.2 and 1.1.3, the reasons for an entity to be added to a gender other than its canonical one can be non-semantic, and thus, be based on phonological, morphological, or syntactic factors among others. However, non-semantic criteria do not always account for these transfers. Looking deeply for the cognitive or cultural factors that mess up a biologically animacy-based semantic gender system is beyond the scope of this dissertation. However, Lakoff's (1987) view of the gender system as a radial structure is important here. According to him, there is not a unique and universal way for categorizing the entities, since the experience and imagination of humans is also important. Thus, the information a human perceives by means of his senses, the ability to move of this entity, or cultural factors on the one hand, and metaphors, metonymy, or mental imaginary on the other, condition the way an entity is conceptualized (Lakoff 1987: 8). Briefly, for him, animacy can be the semantic central point of a radial gender assignment system. Humanness or animacy being the main property, other nonhuman or animate entities can belong to the same gender as humans or animates do, only by sharing some properties with them, or by sharing properties with entities that share properties with animates as in a chain, or also due to a cultural background that attaches these inanimate elements to animate ones. I have labeled all these factors under the name of 'cultural', although this is, evidently, a simplification that includes beliefs, religion, metaphors, metonymy, thoughts, and so on.

Let us look at some examples. The classifier system of Wardaman has three genders (Aikhenvald 2000: 57). Gender I is the canonical one for human beings and animates, but includes also meat and body parts. This may be an example of the radially mentioned by Lakoff, with humans in the middle, and spreading out to meat and body parts, which are actually parts of animate bodies.

What happens with dead bodies, which should be considered inanimate from a biological point of view, is not often explained in my sources. In the Chinantec of Ozumacin, while a part of a body is considered inanimate, the whole body is animate, even if it is dead (Rupp 2009: 6). In Me'phaa both human and animal dead bodies are considered animate (Marlett 2012: 2-3).

Thus, the way a community sees the world is crucial for gender assignment. In Ojibwa there are only two genders, namely animate and inanimate (Corbett 1991: 20-21). However, apart from persons and animals, spirits, trees, snowshoes, sacred stories, snow, tobacco, raspberries, smoking pipes, and other elements are also considered animate entities in this language. Corbett states that maybe animacy is related to the way Ojibwa speakers see the world. From his point of view, a dominant element in the worldview of Ojibwa is ‘power’ (Corbett 1991: 21-22). All living things have some power, so gender is semantically motivated to a great extent in Algonquian languages, provided one adopts the Algonquian perspective.

When objects are treated as animate, or animates like humans, the reason for that can be related to the importance those have for the community. In Plains Cree trees and a number of household items such as pipes, kettles, and snowshoes are included among animate entities (Wolfart & Carroll 1981 [1973]: 20), and in Guarekena, in which there are different plural markers for humans and nonhumans, pigs take those employed with humans, probably due to their importance in the economical system (Corbett 2000: 37).

As explained in § 1.1.1.2, the difference between deities and human entities is not always clear, since deities often share properties that are also present in human beings. Deities, of course, are not the same from one language to another, and in some cases, they include natural elements or atmospheric phenomena, as in Me’phaa for instance (Marlett 2012: 2-3). In my opinion, what lies beneath all the deities is a notion of power, which in some cases like some atmospheric phenomena, can be not only religious, but physical. In Tamil, there is a rational/neuter gender division in the verbal agreement, with a further masculine/feminine one among the rational. The term “rational” is used instead of “human,” because god and demons, sun and moon, are masculine, and goddesses are feminine (Corbett 1991: 8-10; Aikhenvald 2000: 22-23). The related languages Kannada and Telugu reflect similar systems (Corbett 2000: 61). In the case of Telugu, the gender of divine beings depends on their role in mythology (Corbett 1991: 10): the Ganges river is feminine, Hanuman (a monkey) is masculine, and divine cows are neuter. In Tsakhur deities are masculine or feminine like humans, but in gender IV there are also some mythological beings, together with some animate and inanimate nouns (Corbett 2006: 31). In the Otomanguean language family, Chinantecan languages such as those of Lealao, Ozumacin, Sochiapam, and Palantla Chinantec, the animate/inanimate split plays an important role (cf. Blevins 2004: 58; Rupp 2009; Corbett 2012: 93). However, in Lealao Chinantec, as well as in Ozumacin Chinantec, heavenly bodies, certain atmospheric phenomena (rainbow, lightning,

meteor, and so forth) and astronomic entities (sun, moon, star, and so on), and the cross are considered animate due to cultural and religious factors (Rupp 2009: 4-5; Palancar 2015: 34), but in Usila Chinantec, while some meteorological phenomena and time denoting words are treated as animate together with humans and animals, others remain inanimate (Skinner & Skinner 2000: 472). In Zande (Corbett 1991: 14-15) heavenly objects such as the moon and rainbows are treated as humans, together with other objects, usually round, like (round) metal objects, edible plants (including round ones), peas, sweet potatoes, (usually round) non-metallic objects, and scars. Looking at these examples, the radial diagram we could hypothetically trace might be that which links humans and deities (which are round, like the moon), and those round deities with round objects.

As I have pointed out, the animacy of atmospheric phenomena can be related to cultural and religious factors, and to this notion of power. The quality of movement may also be important, since in Navajo, in which the animacy split is consistently based on biological criteria, spontaneous motion is a significant factor to assign animacy to an inanimate entity. Wind, rain, running water, and lightning can be as animate as a horse (Comrie 1989 [1981]: 197).

Children are sometimes treated apart from humans. In Tamil, Kannada, and Telugu they are marked with the neuter gender together with animals, as they are considered irrational (Ortmann 1998: 65). In Zande (Corbett 1991: 14-15) there is a gender for humans with a further masculine/feminine split, a gender for animates, and a gender for inanimates. However, small children are considered animates (nonhumans) and, consequently, do not have any sex-differentiation.

The Australian language Djingili has a masculine/feminine/plants/inanimate semantic gender system, but there are some deviations, since a word like 'tea', for instance, belongs to the masculine gender (Corbett 2012: 22-23). English shows a tripartite pattern in personal pronouns (*he/she/it*), but babies may be taken as inanimates, and ships are hybrid names, as they are referenced as inanimates in relative pronouns (*which*), but as feminine in personal pronouns (*she*) (Corbett 1991: 183). Domestic animals can have a sex distinction and animals in children stories have a gender by convention. It seems that emotive and affective factors (empathy) may be important for gender assignment (Corbett 1991: 12-13; Siewierska 2004: 208), or even pragmatic factors, since lack of empathy can be reflected by using the inanimate gender with humans.

In Archi, some nouns break the semantic criterion: two nouns ('people'/'nation' and 'population') belong to gender III when singular and to gender I/II when plural (Corbett 1991: 170). Some nouns like 'child', 'thief', and 'poor person' can agree in gender I when a man is addressed, II with females, and IV in the singular and I/II in the plural when sex is unknown or unimportant (Corbett 1991: 181, 223). The meaning can also be affected, since the word *lo* means 'man' when it takes gender I, 'girl' when gender II, and 'young animal' in gender IV.

The case of Bantu languages is difficult. The gender system in Proto-Bantu (cf. Table 168) from which different (and more reduced) systems have been developed, has a semantic basis originally, which was already blurred in early stages of evolution (Maho 1999: 67-68). Moreover, the evolution we find in each language is different from one language to other regarding fusions among genders, the number of genders, the rules for assigning an entity to a gender, or regarding the marker an entity takes in the singular and in the plural, which makes each system even more unpredictable from a semantic point of view. Thus, there are some clear semantic tendencies, although the semantically based essays of accounting gender systems in Bantu languages have been proved to be problematic (Maho 1999: 63 ff.). From a crosslinguistic point of view, it is true, concerning animacy, that gender 1 encodes prototypically human beings,<sup>115</sup> gender 9 encodes animals, and gender 7 includes inanimate elements (Maho 1999: 64); however, the division is quite inconsistent, irregular, and full of exceptions. According to Maho (1999), these deviations can be understood by cultural factors, or by the contexts, since the gender of an entity may change to express an augmentative or diminutive meaning, ameliorativeness, or deprecatoriness; but these all are equally semantic and/or pragmatic criteria, and are not formal. It is true that some borrowed words may have been assigned to a gender due to their phonological shape, but most of them are assigned to a gender irrespective of their shape (Maho 1999: 86-87).

Now I will discuss some gender systems in which the semantic features behind them are not straightforward, to see how the radial system departing from a prototype affects them, and even how some entities may change their gender as far as the conceptualization of the world changes in the community.

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<sup>115</sup> But in Teke-Fuumu, for instance, there are inanimates in gender 1, due to a merger between genders 1 and 3.

Look in Figure 49 (Corbett 2012: 115) at the system in Gunwinggu, a language from Australia that has a four-gender semantic system (Aikhenvald 2000: 55). Although there is not a clear animacy-based cut, there is a masculine and a feminine gender in which all humans and big animals are included. Therefore, as in many other languages, for animate entities sex-based gender is semantically assigned. Vegetables seem to belong more or less to a single gender, although inanimates are divided into different genders. All human beings being in the masculine or feminine gender, we could take this as a consistent gender, although tracing the reasons or chains that rule the gender assignment for other entities is not that evident. Note that the items in brackets have moved from the neuter gender to the vegetable one in young speakers, which represents somewhat of a change in the criteria for gender assignment.

**Figure 49.** Gender system in Gunwinggu.

Masculine	Feminine
male higher animates	female higher animates
overall default for animates	some lower animates
some lower animates	sun
rain	
compass points	
some items used in painting	
trade items, especially Macassan and European	
some types of honey	
Vegetables	Neuter
plants and their products, including life-form terms	most parts of animals and plants
sexual and excretory body parts	some parts of landscape
song, ceremony and custom	weather and sea
fire (both bush and domestic)	time measures
food, vegetable and otherwise	languages, and speech
some types of honey	country; place based social categories
boats, planes and cars	
[drink, water, well]	
[camp nexus]	
[landscape features with water associations]	



Dyirbal is a prototypical language of a semantic-based gender system in which other cultural factors are widely present. By the way, this is the language on which Lakoff (1987) based his explanations. The main four genders in Dyirbal are in Figure 50, as summarized by Corbett (1991: 15-16) and Aikhenvald (2000: 23).

**Figure 50.** Traditional gender system in Dyirbal.

- I. Male humans, animate nonhumans
- II. Female humans: water, fire, fighting, dogs
- III. Non-flesh food
- IV. Everything else

However, there are many exceptions due to the abovementioned cultural factors. Corbett (1991: 16-17) classifies the exceptions in three main groups:

1. Mythological association: Nouns important in myths and beliefs take their gender from their mythological role. Birds should be in gender I but they are believed to be spirits of dead human females, so gender II is assigned. Some individual birds are in gender I.
2. Concept association: A noun related strongly to another one that belongs to a different gender is marked with the gender of the latter. For example, *fishing line* should be in gender IV but it is in gender I, because of its association to fish (gender I).
3. Marking of important property: A noun that has an important property may be assigned to a different gender. Usually that property is harmfulness. For example, *fish* (gender I) > *stone fish* (gender II, together with fire and fighting).

#### 1.1.1.4. Combined semantic gender systems

In this section I will provide some examples in which a semantic gender system affects some targets, whereas other semantic systems appear in other targets. The phenomenon is quite similar to that of combined gender system in § 1.1.3, but in the cases studied here, both systems are semantic, unlike in those of § 1.1.3.

The following example comes from Akan. Classifiers in class 4 are restricted to inanimate entities, and class 1, which is typically animate, has some inanimate nouns such as rock, country, house, hatred, death, poverty, and ghost, which are treated as animates due to cultural beliefs (Osam 1993/1996: 154). However, numerals for instance, follow a pure human/nonhuman distinction (Osam 1993/1996: 156-157). Moreover, these classifiers in class 1 and 4 are the etymological source of the 3rd person singular subject bound pro-

nouns, distinguishing in a straight way animate and inanimate controllers respectively. Thus, the system in classifiers is affected by cultural beliefs, whereas the system in numerals and even in bound pronouns, which come from these classifiers, is animacy-based in a more straightforward way.

This combined semantic system may have a diachronic background. In the Chinantecan language spoken in Usila, as in other Chinantecan languages, there is an almost purely animacy-based gender split. However, an old classifier system, present in some words, is still alive. In the gender system beyond these classifiers, apart from animacy and sex, shape is also important (Skinner & Skinner 2000: 469-471). As can be seen in Table 158, although humans and animals may take more than one classifier, there is no mixture among classifiers for humans and animates, and the rest.

**Table 158.** Classifier system in Usila Chinantec.

Classifiers	Gender
$ma^3-$	body parts
$m^4-$	round things
$a^1s^2-$ , $a^1-$ , $s^2-$	feminine humans and animals
$a^2-$ , $a^3-$ , $ni^3-$	masculine humans
$a^1-$ , $a^2-$ , $a^5-$	animals
$ma^3-$	odor
$o^1-$	liquid, soft things.

In the Australian language Gagadu, a four-gender system can be traced (cf. Figure 51) (Aikhenvald 2000: 49; Baerman, Brown, & Corbett 2005: 90-91). As is common, animacy/humanness or sex is an important semantic feature for gender assignment, but other semantic features like being a plant or being touchable can also be included. Moreover, cultural factors allow including, for instance, European material objects in gender I, or some animates with human females in gender II.

**Figure 51.** Semantic gender system in Gagadu.

- I. Human males, most animates, rain, European material objects
- II. Human females, some animates
- III. Plants and their parts, weapons

## IV. Remaining inanimates (abstract entities, body parts, fire, geographical features, temporals)

These genders materialize in gender markers prefixed to adjectives in two different kinds of declension, free pronouns, bound pronouns in the verb, and demonstratives, as can be seen in Table 159 (Baerman, Brown, & Corbett 2005: 90-91). A thorough analysis of the table allows us to establish that the four genders in Figure 51 are only distinguished in 1st declension adjectives (demonstratives and most of the verbal paradigms also have these four distinctions) (Baerman, Brown, & Corbett 2005: 91). 2nd declension adjectives, having syncretic forms for genders III and IV, seem to have a human/nonhuman distinction with a further sex-based one in genders I and II. Free pronouns (and indirect object enclitics) have a masculine vs. everything else distinction. However, the syncretisms for the bound pronouns in the verb (II=IV and I=IV) are, in my opinion, difficult to explain from a semantic viewpoint. As stated by Aikhenvald (2000: 49), when a demonstrative acts as a modifier, all nouns with an animate referent tend to have class I agreement, and all the inanimates agree in class III. Thus, it can be claimed that Gagadu has two macroclasses, namely an animate and an inanimate one, which develop in a different way depending on the target.

**Table 159.** Gender markers in Gagadu.

	Adjectives			Bound pronouns in realis verbs	
	1 <sup>st</sup> declension	2 <sup>nd</sup> declension	Free pronouns	Present Intransitive 3rd per- son subjects	Present and unmarked tense 3rd person objects (with 1 <sup>st</sup> person subject)
I	<i>Ø-</i>	<i>na-</i>	<i>naawu</i>	<i>Ø-</i>	<i>arra-</i>
II	<i>njiN-</i>	<i>njiN-</i>	<i>ngaayu</i>	<i>nj-dja-</i>	<i>nji-rra-</i>
III	<i>ma-</i>	<i>naN-</i>	<i>ngaayu</i>	<i>ma-ya-</i>	<i>ma-ra-</i>
IV	<i>gu-</i>	<i>naN-</i>	<i>ngaayu</i>	<i>nj-dja-</i>	<i>arra-</i>

Often, a sex-based system coexists with another semantic system in different targets, as I will show in the following examples. Tariana, for instance, has two animacy-based systems (Ortmann 1998: 77-8, footnote). There is a pure animate/inanimate split in the classifier system, whereas that for verbal prefixes and pronouns is sex-based. In the Maipurean language Ignaciano there is a sex and animacy-based masculine/feminine/inanimate gender distinction for personal pronouns, articles, and verbal agreement, and a larger one for ad-

jectives and numeral modifiers (Aikhenvald 2000: 69). The last example that combines sex and other semantic system comes from Burmeso. In this language there is a semantic gender assignment, although there is no straightforward animacy-based rule for gender assignment, as can be deduced from Figure 52, which includes a sample of nouns (Donohue 2001: 102). However, as pointed out by Donohue (2001: 102-103) 90 % of the nouns are in classes I, II, or III, and among them, I and III are the biggest. Donohue concludes that class I is the general animate class, II is the female class, and III is the remaining one. The other genders are residual, as they only include 10 % of nouns. Nonhuman elements in class I are somehow associated with human-males (hunting, fishing, and so on) and class II contains females and things related to them. So, departing from a basic animate/inanimate distinction, there is a further sex-based one, which also includes inanimate elements together with animate ones, due to cultural factors.

However, adjectival gender agreement is different from verbal gender agreement. In the adjectives there is a sex-based gender system summarized in Figure 53 (Donohue 2001: 107). Following biological criteria, male humans belong to the masculine gender, and female humans to the feminine one. Other entities are gender-assigned through cultural factors. It is interesting that some entities have been demoted from being animate to becoming neuter, like female children. Above all, the most interesting genders are masculine inanimate, feminine inanimate, and neuter animate. These genders are restricted to a few words, and only distinguished in the plural (Donohue 2001: 106). Masculine inanimates are entities marked with the masculine gender in the singular but with the neuter gender in the plural, feminine inanimates are feminine in the singular and neuter in the plural, and neuter animates are neuter in the singular but animate (masculine and feminine plural share the same marker) in the plural. According to Donohue (2001: 106), these groups include inanimate entities with some kind of sentiency, which is a typically human feature.

**Figure 52.** Noun classification for verbal gender agreement in Burmese.

Class	Body parts	Humans	Nonhumans	Tools	Plants	Nature
I	wound neck	male humans 2.SG PRO	(most birds, animals, etc.)	machete eating equipment	tree bamboo pandanus betel lime	sea rock
II	nose ear eye	female hu- mans 1.SG PRO	black cocka- too small bat	knife house string sago canoe	-	-
III	(most body parts)	female child	(insects) (lizards) cassowary	canoe bow axe bench upper sago through	papaya rattan (all tubers)	wind mountain lake rainbow lightning fire star
IV	head flesh faeces finger elbow	-	-	-	-	sun cloud (=sky) rain sand mud
V	-	-	-	-	banana sago tree	-
VI	-	-	-	(all arrows)	coconut rice	-

**Figure 53.** Noun classification for adjective agreement in Burmeso.

Class	Body parts	Humans	Nonhumans	Tools	Plants	Nature
Masculine	head					sun
	flesh	male humans	(most birds, animals, some lizards, etc.)	machete		star
	faeces	1.SG PRO		eating equipment	papaya	cloud (=sky)
	finger	2.SG PRO		axe		rain
	elbow					sand
						mud
II	-	female humans	all birds of paradise	knife house string	-	-
III	nose		black cockatoo	canoe		water
	ear		(some insects)	bow	vegetables	wind
	eye	female child	small lizards	rope	rattan	rainbow
	(other body parts)		cassowary	bench string		lightning fire
IV	neck	-	-	bench upper sago through	(all tubers) banana papeda <sup>116</sup> coconut sago tree	mountain lake
V	-	-	(some small lizards)	-	-	-
VI	wound	-	-	lower sago through string shapes	-	sea

Donohue (2001: 108) has crossed the verbal-agreement genders in Figure 52 with adjective-agreement genders in Figure 53, based on a sample of words.<sup>117</sup> It is clear that ani-

<sup>116</sup> Papeda is the soup made from processed sago starch.

<sup>117</sup> The figures before the nouns indicate the number of words in each slot, from the total sample.

macy plays a significant role in gender assignment for both verbal and adjectival agreement even from a quantitative point of view, as genders I and II, together with masculine and feminine ones, include most of the animate entities, while gender III+neuter is the most common gender combination for inanimate entities.

**Figure 54.** Combination of two gender systems in Burmeso.

	Masculine	Feminine	Neuter	Masculine inanimate	Feminine inanimate	Neuter inanimate
I	44 nouns plus all male kin terms	5 (4 birds)		1 ('neck')		2 ('sea', 'wound')
II		7 plus all feminine kin terms			1 ('small goana')	2 ('sago rinser (lower)', 'string shapes')
III	3		28 mainly inanimate	10 inanimate	1 ('goana')	
IV	9 inanimate					
V				2 ('banana', 'sago tree')		
VI			1 ('arrow', nouns for arrows)	1 ('coconut')		

### 1.1.2. *Mixed semantic/non-semantic gender systems*

As I have already stated in some examples in the previous sections, gender systems may follow semantic and non-semantic criteria at the same time; that is to say, animacy and other inherent semantic features for gender assignment may coexist with factors such as phonology, morphology, syntax, distance, stress, and pragmatics. In this section I will provide some instances in which animacy has some importance in semantic gender assignment, but other non-semantic criteria are also important.

A good example of a mixed gender-assignment system affected by semantic, morphological, and phonological criteria can be found in Archi. In this language, gender agreement markers are determined, at least partially, by animacy, above all in the plural: genders I and II denote human entities and genders III and IV include nonhumans (Corbett 2006: 120). These are the entities included in each gender (Corbett 1991: 26-28, 158, 271; 2012: 239 ff.):

**Figure 55.** Gender system in Archi.

- I. Male rationals, God, spiritual male beings
- II. Female rationals and spiritual female beings
- III. Domestic animals, birds, insects, mythical beings, musical instruments, cereals, trees, water phenomena, astronomical, and meteorological phenomena
- IV. Young animals and birds (wild or domestic), smaller wild animals and birds, tools, clothing, metals, liquids, abstract concepts

At first sight, it seems that only semantic criteria are involved in gender assignment but, as pointed out by Corbett (1991: 28), apart from humanness for genders I and II, other semantic criteria apply: gender III includes big things or animals and IV small ones (except for insects). Concrete objects are in gender III and abstracts in IV. But together with the abovementioned semantic criteria, there are also some formal ones. Nouns ending with *ku*, *mu*, and *ti*, which denote normally abstract entities, belong to gender IV, nouns beginning with *b* or *m* or ending in *n* or *u* are in gender III, and some verbal nouns are also in gender IV.

In Yimas there is also a sex distinction, a gender for higher animates, and a further one for important plants and elements derived from them. Together with these semantic criteria, the remaining elements are phonologically assigned to a gender, and gender V includes those nouns that do not fit either phonological or semantic rules (Corbett 1991: 55-56). The closely related language Tabriak also has a sex-based distinction, but gender for plants has been assimilated to other genders following phonological criteria (Foley 1991: 27-28).

Baniwa, an Arawakan language, combines biological sex with other semantic and non-semantic factors too (Aikhenvald 2000: 39-40, 69). This is a language with more than forty different genders, assigned by both semantic and morphological rules. However, gender I is for non-feminine animates and human attributes (e.g. 'hand'), gender II is for non-feminine humans, and gender III for feminine humans. In other words, all animate entities are in the first three genders. This is a good example of the interaction between sex and animacy in gender assignment, together with other semantic and formal elements.

The gender system in the Tucanoan language Barasana-Eduria is also a straightforward example of a mixed system. Intrinsic semantic features, namely animacy, sex, and shape, interact with circumstantial factors such as number or the type of nominal, and formal ones like taking a classifier or not (Jones & Jones 1991: 19-20).

**Figure 56.** The gender system in Barasana-Eduria.

- I. Inanimates taking classifiers related to shape and number



- II. Animates taking classifier specifying sex and number
- III. Always-plural nouns. This group has only two members
- IV. Animates without gender marking
- V. Masculine nouns (kinship terms and jobs done by men)
- VI. Feminine nouns (kinship terms)
- VII. The word for baby, which agrees in gender on the verb
- VIII. Speech act participants

At this point, it is worth talking about the Niger-Congo languages, and specifically about the Bantu family. In this family, languages are claimed to have a big non-semantic gender system (cf. The system of Proto-Bantu from which each Bantu language has derived its own system, in Table 168 in page 317). However, all non-semantic gender systems have always had a semantic basis that has faded to different extents. Traces of semantic gender assignment can still be found in Bantu languages as well (Ortmann 1998: 67-68). Genders 1 and 2 are canonical forms for humans in the singular and plural respectively, in most Bantu languages, although some of them may also include some nonhuman terms. Other genders may include most animals or inanimate entities. Baga-Koga, a Niger Congo language (although not bantoid), includes all the animate entities in gender 1/2 (Corbett 1991: 256). Likewise in Swahili, some names belong to a given gender regardless of their morphological shape. Animates tend to be in gender 1/2 together with the words for ‘animal’ and ‘insect’ (Corbett 1991: 47-257).

The gender system of Kisi, another Bantu language, represented in Table 160 (Baerman, Brown, & Corbett 2005: 88), shows how, taking together the singular and the plural, apart from semantic features such as animacy or shape, other formal elements like being a deverbal or a denominal word, or a loanword, are equally important. If we separate the singular and the plural, whereas in the singular three genders can be distinguished (*o-*, *i-*, and *le-*), in the plural there are five different genders (*la-*, *a-*, *ŋ-*, *i-*, *ma-*). As pointed out by Baerman, Brown, & Corbett (2005: 89), although the gender assignment in the singular is difficult to characterize, the plural is semantically more coherent: *a-* is for animates, *i-* for long objects, *ma-* for liquids and juicy plants, sharp and pointed objects, and *la-* is the default form for inanimates (except the *i-/n-* group).

**Table 160.** Gender markers in Kisi.

Sg	Pl	Gender
<i>o</i>	<i>la</i>	Non semantic core: default class for borrowed inanimates not denoting liquids
	<i>a</i>	Virtually all animates
<i>i</i>	<i>ŋ</i>	Inanimate: little semantic cohesiveness (maybe small and round objects)
	<i>i</i>	Long and thing, string-like objects
<i>le</i>	<i>la</i>	Inanimates: productive for deverbal or denominal abstract nouns
	<i>ma</i>	Liquids (productive for borrowings), pointed objects
<i>o</i>	<i>i</i>	Trees and tree-like plants

Distance is another non-semantic factor for gender agreement. Apart from the gender agreement in the classifier system, other elements may show a mixed system in Bantu languages. In Swahili, a non-semantically-assigned gender controller may trigger a semantically based agreement. In example (259), the controller *rafiki* belongs to gender 9/10 and the attributive possessive agrees with it, but the verb agrees in gender 1, the canonical one for animates, because of the animacy of *rafiki*. Verbal agreement has a semantic basis, whereas the possessive keeps the formal one (Corbett 1991: 252-254). Distance is important, as can be seen in (260), as when there is another modifier between the noun and the possessive, semantic agreement is compulsory (Corbett 1991: 252-3).

Swahili. Niger-Congo.

(259) *rafiki*            *y-angu*    *a-mefika*  
 friend(9/10)    9-my      1-arrived  
 ‘My friend has arrived.’

(260) *rafiki*            *mw-ema*    *w-angu*  
 friend(9/10)    1-good      1-my  
 ‘my good friend’

Another Bantu language, Chichewa, has a case of semantic gender agreement although gender assignment is almost purely morphological, even if, as expected, gender 1/2 is still partially for humans. This semantic-based background is barely shown, but exceptionally, agreement shows a semantic basis when entities denoting humans are involved and when

the target is far from the controller. See the example in (261) (Corbett 1991: 248-250). The word *kamwana*, even denoting a human entity, belongs to a gender (12/13) other than the traditionally human-denoting gender 1/2. However, the co-indexed pronoun meaning ‘it’, being far from the controller and in other sentence, can keep the 12/13 agreement form *iko(ko)*, or take the form *iye(yo)* for humans in gender 1/2. The same applies for the gender agreement marker in the verb ‘to love’, as *ka* is a gender 12/13 marker, whereas *mu* is the form for gender 1/2.

Chichewa. Niger-Congo.

- (261) kamwana                      ka-mene                      ka-ma-gona                      mu-nyumba                      umu  
 small.child(12/13)    12-who                      12-HABIT-sleep    in-house                      this  
 ka-mene    ka-ma-pita                      ku sukulu    ku London, mai                      ake  
 12-who                      12-HABIT-go    to school    in London mother                      its  
 a-ma-ka/mu-konda                      iko(ko)/iye(yo)  
 1- HABIT-(12/13)/(1/2)-love    it(12/13)/it(1/2)  
 ‘The small child who sleeps in this house who goes to school in London - its  
 mother loves it.’

In this language, some nouns are hybrid and can show either semantic or formal gender. In example (262), ‘hero’ can agree in gender 9 because of its phonology, or in gender 1 because of its humanness. Moreover, both can be combined in stacked targets, provided the semantic agreement is made by the element syntactically farther from the controller, as in example (263), taken from Corbett (1991: 239-240); otherwise, it is ungrammatical.

Chichewa. Niger-Congo.

- (262) ngwazi                      y-/w-athu                      y-/w-oyamba  
 hero(1/9)    9-/1-our                      9-/1-first  
 ‘our first hero’
- (263) a. ngwazi                      y-athu                      w-oyamba  
 hero(1/9)    9-our                      1-first  
 ‘our first hero’
- b. \*ngwazi                      w-athu                      y-oyamba  
 hero(1/9)    1-our                      9-first  
 ‘our first hero’

Inherent semantic features may also be overridden by pragmatic factors. Oriya, in India, has a system that is almost always semantic. However, in this language, as in others, a human entity can be demoted, agreeing as if it were inanimate, to be deprecatory. On the other hand, pets can be treated as humans to show love (Ray 2003: 450-451).

Completely sex-based (masculine/feminine or masculine/feminine/neuter) gender systems are actually often mixed. Whereas human- or animal-denoting entities take masculine or feminine gender depending on their biological sex, inanimate entities are assigned to a gender following, evidently, non-semantic criteria (Dahl 2000).

For instance, in Miya, humans are masculine or feminine following biological criteria, whereas inanimates are masculine or feminine based on formal criteria (Corbett 2000: 72-73). This phenomenon is also common in Romance languages such as Spanish (own knowledge) among many others, as animates take their corresponding biological gender and inanimates, which must compulsorily be masculine or feminine, take it following formal criteria. Eastern Oromo, in Africa, follows the same rule, and Slavic languages behave in the same way. Russian, for instance, has three genders (masculine/feminine/neuter) whose first two (masculine/feminine) are semantically assigned for animate entities, and phonologically for inanimates (Corbett 2012: 116-117). Animates usually also fit the phonological rules for gender assignment, but not always: *djadja* 'uncle', for example, which denotes a male entity, is morphologically feminine but shows masculine agreement (Corbett 2012: 117). In Serbo-Croatian, another Slavic language, the gender system is mixed as in Russian, but apart from that, animacy and biological sex play an interesting role in plural verbal agreement of conjoined NPs. If all the conjoined NPs are biologically female, female plural agreement is triggered, but otherwise, both feminine and even masculine agreement may appear, even if all the conjoined NPs are feminine, but inanimate (Corbett 2012: 63-64). That means that for obligatory feminine agreement, animacy is essential.

Following Aikhenvald (2000: 26-27), in the Erok language Iraqw, spoken in Tanzania, masculine and feminine gender assignment is only partially semantic. Animates in the singular belong to their corresponding masculine/feminine gender like male and female agentive nouns do, but nouns with some specific endings or derived from some types of verbs have an arbitrary gender assignment irrespective of their animacy.

That is the case also for Afar (Corbett 2012: 115-116), in which animate entities follow a biological rule to agree in their corresponding masculine or feminine gender, but inani-

mates are always feminine when they finish with a stressed vowel, and masculine, otherwise. It is true that animates usually fit the formal rules as well, but examples like the masculine *abbà* ‘father’ show that animacy outranks the formal constraint.

The paradigm of Kashmiri possessive markers (Table 161) is interesting in this regard (Koul 2003: 909). An animate/inanimate semantic distinction coexists with a masculine/feminine distinction that in the case of inanimates fits morphological criteria, i.e. it is not semantic. However, the controllers of each system are different: the animate/inanimate split is controlled by the gender of the possessor, and the masculine/feminine one, by the semantic or non-semantic gender of the possessed element.

**Table 161.** Possessive markers in Kashmiri.

Inanimate				Animate							
				Proper Nouns				Common nouns			
I		II				III					
Masculine		Feminine		Masculine		Feminine		Masculine		Feminine	
Sg	Pl	Sg	Pl	Sg	Pl	Sg	Pl	Sg	Pl	Sg	Pl
<i>-uk</i>	<i>-ik'</i>	<i>-ič</i>	<i>-iči</i>	<i>-un</i>	<i>-in'</i>	<i>-in'</i>	<i>-ini</i>	<i>-und</i>	<i>-ind'</i>	<i>-inṣ</i>	<i>-inṣi</i>

### 1.1.3. Combined semantic/non-semantic gender systems

It is equally possible that two systems, a semantic and a non-semantic one, coexist in the same language, not mixed, but affecting different elements in the clause. I have called it, following Corbett (1991), a ‘combined system’.

In Russian, some words like *vrač* ‘doctor’ (and others) are hybrid. They are formally masculine, so when they denote a male they have masculine agreement consistently. However, when they refer to a female, attributive modifiers often show masculine non-semantic agreement, predicates show both masculine or feminine semantic agreement, and relative pronouns prefer semantic agreement (Corbett 1991: 183-184). As can be seen, each target follows its own agreement rule, semantic or not, with no overlapping.

Palikúr, a Maipurean language, has a semantic masculine/feminine/inanimate system for personal pronouns, articles, and verbal agreement, whereas adjectives and numeral modifiers have a larger not purely semantic system (Aikhenvald 2000: 69).

In Michif, a French-Cree mixed language from North America, there is a masculine singular/feminine singular/plural gender system taken from French in the articles, which is not completely semantic. On the other hand, there is another animacy-based gender system in the demonstratives, coming from Cree (cf. Table 129), so there is no overlapping between the two systems, which have different agreement targets. Examples have been taken respectively from Corbett (2006: 269-270) and Bakker (1997: 109).

Michif. Mixed language, French-Cree.

- (264) a. aw-a                      la              fij  
           this-NEAR.ANIM.SG    FEM.SG      girl  
           ‘this girl’
- b. u:ma                      la              bwet  
           this-NEAR.INAN.SG    FEM.SG      box  
           ‘this box’

Some languages in the Mba group, Ndunga for instance, have an almost non-semantic gender system like that of Bantu languages (both are Niger-Congo languages), whereas others, like Ma, have developed a newer semantic one. However, in this transition, which has been undergone also in some Bantu languages (cf. § 1.1.4), some languages still have both systems living together (Corbett 1991: 184-185). I will discuss some examples in the following sentences.

In Dongo, verbs agree in the new system and adjectives in the older one. However, it should be noted that even in the older non-semantic system animates always have the same gender, whereas different morphologically assigned genders are used with inanimates. One of the most interesting combined systems is, precisely, that of the Mba language itself. It also has two gender systems at the same time (Corbett 1991: 185-188; Aikhenvald 2000: 75). The old system is, not including some inanimate genders,<sup>118</sup> that of Table 162 (Corbett 1991: 185). As pointed out by Aikhenvald (2000: 75), this is the system employed inside the NP, namely in nouns, adjectives, demonstratives, interrogatives like ‘which’ and ‘how much’, in the genitive, and in some numerals. On the other hand, there is a newer semantic

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<sup>118</sup> ‘Inanimate gender’ was defined for the first time in Corbett (1991: 187). Inanimate genders can be defined as those “which comprise a small number of nouns, and whose agreements can be readily specified as an unusual combination of forms available for agreement with nouns with the normal gender values” (Corbett 2012: 84).

system in a personal pronoun (which can only be co-referential with animate entities) whose forms appear in Table 163 (Corbett 1991: 185). This pronoun can be used optionally also as an agreement marker, preceding other personal pronouns, numerals, some interrogatives, and some demonstratives, which already have their gender marker from the old system, so there is no overlapping between the two systems (Aikhenvald 2000: 75). See in example (265) from Corbett (1991: 186), that although gender 5 does not show any semantic basis, the optional agreement through the personal pronoun with animates does show it. If we combine both the traditional system with the newer one, as already done by Corbett (1991: 187; 2012) in Table 164, 18 theoretical possible combinations surface, but only 11 are instantiated. This happens because the old gender system also has a slight semantic basis when assigning nouns to a gender, so there are neither animates in genders 3/4, 7/2, or 11/2 for instance, nor male humans outside genders 1/2 or 7/2.

**Table 162.** Traditional gender system in Mba.

Gender	Sg	Pl	Gender
3	<i>l</i>	<i>s</i>	4
5	<i>k</i>	<i>ʒ</i>	6
9	<i>ny</i>		
1	<i>w</i>	<i>y</i>	2
7	<i>g</i>		
11	<i>m</i>		

**Table 163.** 3rd person pronouns in Mba.

	Sg	Pl
Male human	<i>ndé</i>	<i>bi</i>
Other animate	<i>bi</i>	

**Table 164.** Combined gender system in Mba.

Sg agr.	Pl agr.	Pronoun/optional agr.	Gender	Combined gender
<i>w</i>	<i>y</i>	<i>ndé</i>	I	1/2 male personal
<i>w</i>	<i>y</i>	<i>bi</i>	II	1/2 animate
<i>w</i>	<i>y</i>	∅	III	1/2 inanimate
<i>l</i>	<i>s</i>	∅	IV	3/4 inanimate
<i>k</i>	<i>z</i>	<i>gi</i>	V	5/6 animate
<i>k</i>	<i>z</i>	∅	VI	5/6 inanimate
<i>g</i>	<i>y</i>	<i>ndé</i>	VII	7/2 male personal
<i>g</i>	<i>y</i>	<i>bi</i>	VIII	7/2 animate
<i>g</i>	<i>y</i>	∅	IX	7/2 inanimate
<i>ny</i>	<i>z</i>	∅	X	9/6 inanimate
<i>m</i>	<i>y</i>	∅	XI	11/2 inanimate

Mba. Niger-Congo.

(265) a. *kíá* (bi) *k-íma*  
 snake(5) 3.SG 5-one  
 ‘one snake’

b. *kásá* \**bi* *k-íma*  
 leaf(5) 3.SG 5-one  
 ‘one leaf’

Another example of a combined system is that of Landoma, as the examples in (266) show (Corbett 1991: 229-230). In this language the demonstrative determiner agrees syntactically in gender with the noun, but the personal pronoun shows a semantic agreement in gender 1, because a snake is animate.

Landoma. Niger-Congo.

(266) a. *abil* *ŋŋe,* *i-nəŋk* *ŋi* *le*  
 boat(3) this.3 I-see it.3 FOC  
 ‘This boat, I have seen it.’



b. abok    ηηε,    i-nəŋk    kə    lɛ  
 snake(3) this.3    I-see    it.1    FOC  
 ‘This snake, I have seen it.’

c. oteem    uwe, i-nəŋk    kə    lɛ  
 old.man(1) this.1 I-see    it.1    FOC  
 ‘This old man, I have seen him.’

In the Bantu branch, the situation is quite similar. In some languages, all animate entities agree in gender 1/2 irrespective of the classifier they may take. Maho (1999) terms this a General Animate Concord (GAC), and it can be seen in example (267), from Swahili (Maho 1999: 122). Note how both the animate and the inanimate entity belong to the same gender 6, but only the animate entity shows semantic agreement based on animacy. The same situation can be found in Bondei or Themne among others (Corbett 1991: 254-256).

Swahili. Niger-Congo.

- (267) a. ma-neno    ma-baya  
           6-word      6-bad  
           ‘bad words’
- b. ma-fundi    wa-baya  
           6-craftman 2-bad  
           ‘bad craftsmen’

It should be noted, however, that the degree of penetration of these GACs is not cross-linguistically homogeneous. Following Wald (1975: 302), the outlook is that of Figure 57.<sup>119</sup>

**Figure 57.** Tolerance to General Animate Concorde (GAC) in Bantu languages.

1. Total integration. GAC compulsory with all animates and all constructions requiring concords. Example: Bondei.
2. GAC obligatory, except for possessive constructions. Example: Swahili
3. GAC obligatory outside the NP. Example: Kami
4. Optionality, but preference of GAC. Example: Chichonyi
5. Rejection of GAC, but tolerance before and inside the NP. Example: Zigula

<sup>119</sup> There are additional restrictions to the use of GAC. In Bangi GAC occurs with a person, an animal, or a thing having volitional power when referring to the subject, but only with humans when referring to the object. In Matumbi nouns belonging to classes 9 and 10 denoting animals do not take GAC in the plural, while in Myene GAC is used only with free pronouns and subject concords, and so on (Maho 1999: 123-125).

The following examples illustrate some of the cases in Figure 57. In Kami, a language spoken in Tanzania, semantic gender agreement is obligatory in the predicate, but in attributives (except for possessives) both are possible, as can be deduced from examples in (268) (Corbett 1991: 254). Conversely, in the Mbaka dialect of the Bantu language Kimbundu in example (269), and also in Shambala and Zigula, semantic agreement is possible in predicates, but forbidden in attributives. In Chichonyi, otherwise, the semantic or syntactic agreement is optional both in predicates and attributives (Corbett 1991: 253).

Kami. Niger-Congo.

- (268) a. mbudzi dz-angu wa-gomba ng'ombe dz-ako  
 goats(10) 10-my 2-attacked cows(10) 10-your  
 'My goats attacked your cows.'
- b. ng'ombe dz-angu n-hulu/wa-kulu  
 cows(10) 10-my 10-big/2-big  
 'my big cows'

Kimbundu. Niger-Congo.

- (269) kilumba ki-na \*u-na ki-amwiza/u-amwiza  
 girl(7) 7-that/\*1-that 7-come/1-come  
 'That girl is coming.'

Apart from GAC, another type of combined gender system can be found in some Bantu languages, such as Lingala. In this language the traditional gender system is employed in the noun classifiers (cf. Table 165), but the markers in other targets, at least in some of them, follow another system that distinguishes just animacy and number, as shown in Table 166. Both tables have been adapted from Maho (1999: 132). It should be noted that these verbal markers are etymologically related to the noun classifiers.

**Table 165.** Noun classifier system in Lingala.

Noun class	Noun prefix
1=3	<i>mo-</i>
2	<i>ba-</i>
4	<i>mi-</i>
5	<i>li-</i>
6	<i>ma-</i>
7	<i>e-</i>
8	<i>bi-</i>
9=10	<i>(N)-</i>
11	<i>lo-</i>
14	<i>bo-</i>
15	<i>ko-</i>

**Table 166.** Verbal markers for subject concord in Lingala.

	Sg	Pl
Animate	<i>a-</i>	<i>ba-</i>
Inanimate	<i>e-</i>	<i>i-</i>

Both systems described above, that which employs GACs for animates, and that which makes just an animacy (and number) distinction, are not restricted to markers attached to elements in the sentence other than the controller noun (concord). They can also be found among the noun classifiers, although more scarcely. The counterpart of the GAC system in the noun appears, for instance, in Luguru in which all animate nouns, as well as gender markers in other concords, take noun classifiers in gender 1/2 (Corbett 1991: 225). In Makonde, apart from having 1/2 gender agreement in other targets, animate nouns formerly in gender 10, which are always plural, now take gender 2 classifiers, so the phenomenon works only in the plural, as shown in example (270) (Corbett 1991: 255). Likewise, in Lunda inanimates follow the traditional nominal classifier system, which, apart from having a big gender system, employs different forms for singular and plural. Ani-

mates, then, mark the plural always through the traditional way, but at the same time, by adding the gender 2 morpheme, which is the canonical plural gender for humans in the traditional system. Compare the way of pluralizing in the examples in (271) (Maho 1999: 133-134). Examples of a pure animacy distinction in the noun classifier can be found in languages such as Amba, in which all inanimate entities are unmarked (no distinguishing number), as well as animate singular nouns. Animate plurals take *ba-*, as summarized in Table 167 (Maho 1999: 136).

Makonde. Niger-Congo.

- (270) *βa-ng'ombe*    *a-βa*  
           2-cows            2-these  
           'these cows'

Lunda. Niger-Congo.

- (271) a. *chi-tembi*  
           7-skin  
           'skin'
- a'. *yi-tembi*  
           8-skin  
           'skins'
- b. *chi-supi*  
           7-fool  
           'fool'
- b'. *a-yi-supi*  
           2-8-fool  
           'fools'

**Table 167.** Gender marking in nouns in Amba.

	Sg	Pl
Inanimate	<i>∅-</i>	<i>∅-</i>
Animate	<i>∅-</i>	<i>ba-</i>

All these deviations from the traditional gender system of Bantu languages, which also has a slight semantic basis (cf. § 1.1.1.3), to a more straightforward animacy-based system, have a diachronic explanation that will be addressed in § 1.1.4.

#### *1.1.4. Diachrony: toward an animacy-based gender assignment*

Although the aim of this dissertation is not describing diachronic processes, it should be perfunctorily noted that there are instances of gender systems that, not being initially animacy-based, nor even semantically based, have evolved toward it. That is to say, animacy as a semantic feature has been introduced or enhanced in gender-assignment rules.

The gender system in Dyirbal, semantic but affected by many cultural factors (cf. Figure 50 in page 295), changed together with the cultural perspective and beliefs of the last Dyirbal speakers, and due to language decay (Corbett 1991: 17-18). Gender III was lost and nouns moved to gender IV. Equally, nouns related to fire, water, and lighting were re-assigned to gender IV, mythological and concept association was lost, and some exceptions were regularized, resulting in the system in Figure 58. In summary, the last Dyirbal speakers had a more simple system in which sex and animacy was crucial, over other cultural factors (Corbett 1991: 18).

**Figure 58.** New gender system in Dyirbal.

- II. Female humans
- I. Other animates
- IV. Everything else

Danish personal pronouns, in Table 155, and those of Swedish in Table 84, have developed from a former masculine/feminine/neuter system that was already semantic, to a more animacy-based one: Animals, formerly belonging to the masculine or feminine gender depending on their sex, have moved toward their own gender, which does not distinguish sex, thus leaving this distinction available only for humans (Ortmann 1998: 77).

In Andi there also have been some interesting splits, which can be traced by looking to dialectal variation. Genders III and IV, which included formerly both animate and inanimate entities, have split, separating animates from inanimates (Corbett 1991: 198-200; Baerman, Brown, & Corbett 2005: 86-87). This case has been widely studied in § 1.3.1.3.

In the cases seen so far, an already semantic system became clearer from the perspective of animacy, but also non-semantic systems may become more semantic by making an animacy distinction. The case of Sinhala is important from a diachronic and genetic point

of view. This language has a masculine/feminine/neuter gender system inherited from Indo-Aryan that is not purely semantic. However, unlike in other related languages like Sanskrit, there has been an evolution toward a more semantic system (as in the Dravidian branch) in which masculine and feminine are animate, and neuter inanimate (Masica 1991: 220-221).

That is the case also for several Bantu languages. As I have already pointed out, Bantu languages have a big gender system, which is overtly marked by nominal classifiers, and also by means of gender markers in different targets within the clause. This gender system, whose markers tend to have alternative forms for singular and plural, includes features like augmentation/diminution, liquids, collectives, honorific, paired things, mass nouns, locatives, and so on, but also forms for humans, animates, and inanimates. Although the number of forms reconstructed for Proto-Bantu is somewhat controversial, there exists some agreement among researches for most of them. In Table 168 I provide a paradigm of the possible set of forms in Proto-Bantu, for noun classifiers (Maho 1999: 51).

As pointed out before, there are some semantically assigned genders, such as 1 and 2 for humans, 7 and 8 for inanimates and others, and 9 and 10 for animals, which can also be found in an earlier stage of language, namely in Proto-Benue-Congo (Maho 1999: 258-259). However, from this huge class system, Bantu languages have evolved in a different way, and some of them nowadays have a more straightforward animacy-based system.

According to Maho (1999: 127 ff.), the evolution is not the same for nominal classifiers (in the controller NP) and gender markers (in agreement targets within the clause), although in some cases they are etymologically related. In the corpus studied, he has identified different theoretical types, included in Figure 59, which has been adapted from Maho (1999: 130-131).

**Table 168.** Possible set of noun classes and prefixes in Proto-Bantu.

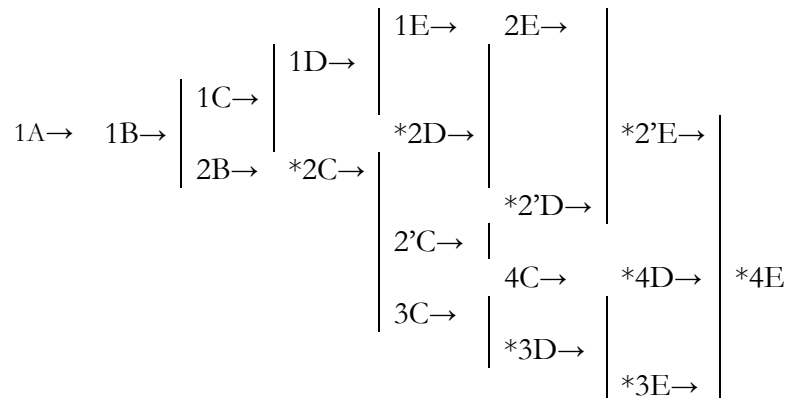
Form	Label	Gender
* <i>mù-</i>	1	humans
* <i>Ø-</i>	1a	kin, personified animals
* <i>βà-</i>	2	honorific, plural to classes 1 and 1a
* <i>βà~βǎ-</i>	2x	honorific, plural to class 1a
* <i>mù-</i>	3	trees, plants, inanimates
* <i>mì-</i>	4	plural to class 3
* <i>ì-</i>	5	miscellaneous, paired things, augmentatives
* <i>mà-</i>	6	liquids, collectives, plural to classes 5, 9, 11, 14, and 15
* <i>kì-</i>	7	inanimates, manner/style, diminutives, augmentatives
* <i>βǐ-</i>	8	plural to class 7
* <i>nì-</i>	9	animals
* <i>ì-nì</i>	10	plural to classes 9 and 11
* <i>lù-</i>	11	long thin things, abstracts
* <i>kà-</i>	12	diminutives
* <i>lù-</i>	13	plural to class 12
* <i>βù-</i>	4	abstracts, mass nouns, plural to class 12
* <i>kù-</i>	15	infinitives
* <i>pà-</i>	16	locatives, ‘near’ and ‘explicit’
* <i>kù-</i>	17	locatives, ‘remote’ and ‘general’
* <i>mù-</i>	18	locatives, inside
* <i>pǐ-</i>	19	diminutives
* <i>yù-</i>	20	augmentatives, diminutives
* <i>yǐ-</i>	21	augmentatives, pejoratives
* <i>yà-</i>	22	plural to class 20
* <i>ǐ-</i>	23	locative, unspecified

Figure 59. Main gender systems in Bantu languages.

	Noun prefixes					
	1	2	2'	3	4	5
	Trad	Trad/Animacy	Trad+Pl	Animacy+Sg/Pl	Sg/Pl	None
A. Trad	+					
B. Trad/Animacy	+	+				
C. Animacy+Sg/Pl	+		+	+	+	
D. Sg/Pl	?+					
E. None	+					

Maho’s main point is that these theoretically possible combinations may be chronologically ordered, although not all slots are attested. The evolution is shown in Figure 60 (Maho 1999: 141).<sup>120</sup> Note that the evolution starts in the concord system toward a general marking of animates (1A→1B), and then either the concord system loses the traditional system (1C) completely, or the general marking for animates spreads to the noun classifiers (2B). Note that 1C languages can either continue their evolution toward a singular/plural system or, although it is not attested, they may extend the general animacy markers for animates to the noun classifiers (2C), which can also come from 2B, and so on.

Figure 60. Reconstruction of the diachronic evolution of gender systems in Bantu languages.



<sup>120</sup> Starred stages are not attested.



## 1.2. Animacy as a condition

As we have seen, animacy may appear as a semantic feature (AnimF) involved in gender assignment rules and in the configuration of gender systems, but also as a condition for the feature of gender (AnimC). The first case implies that a language has a human/nonhuman or an animate/inanimate gender split. In the examples included in this section, on the contrary, I will show how animacy may control the overt appearance of a gender marker, irrespective of the value this gender may have (§ 1.2.1). Animacy can equally determine which gender value must be assigned to an agreeing target, when this gender value is not animacy-based (§ 1.2.2). Finally animacy can be the key for solving agreement conflicts when two gender systems, whatever their nature is, struggle to control agreement in a target (§ 1.2.3).

### 1.2.1. *Animacy as a condition for overt gender marking*

We have already seen (§ 1.1) that animacy (AnimF) may be a crucial semantic feature for gender assignment. However, there are examples in which animacy does not have any control on the value a gender may have, but it conditions its overt marking. That is to say, animacy operates as a condition (AnimC) for the feature of gender, irrespective of the value this gender may have.

In Bhojpuri, an Indo-Aryan language, sex-based overt gender marking on the noun is restricted to animate entities by means of the derivational suffixes *-i*, *-in*, or *-ni* (Verma 2003: 525): cf. *dādā* ‘grandfather’ ~ *dādi* ‘grandmother’. Moreover, only animate nouns show overt (masculine/feminine) gender agreement on the verb. It is important to note that gender assignment is not determined by animacy, but by biological sex, as only female-human entities are feminine, whereas the remaining animates are masculine (Verma 2003: 525). The situation in Mba, already studied for other purposes in § 1.1.3, is surprisingly similar. There is a pronoun agreeing in number and sex (in the singular) that can be optionally added before numerals, interrogatives, some demonstratives, and some pronouns (cf. Table 163). In this case, the gender split is not feminine-human/remaining animates, but masculine human/remaining animates (Corbett 1991: 185; Aikhenvald 2000: 75).

Abui has a set of bound pronouns attached to verbs that agree in affectedness, but also in gender, as they have different forms for animates and inanimates (cf. Table 73). However, their overt appearance is also conditioned by animacy, since only verbs that can have both animate and inanimate objects can take them (Klamer & Kratochvíl 2006: 63-65).

In Romanian as well, specific human objects, apart from being preceded by a preposition *pe* (see § III.1.1.1), also trigger gender (person and number) agreement by means of a pronoun preceding the verb, as shown in example (272) (Mallinson & Blake 1981: 200; Siewierska 2004: 155, 158).

Romanian. Indo-European.

- (272) o                caut                pe                o secreteră  
           3.SG.FEM look.for.1.SG ACC/DAT a secretary(FEM)  
           ‘I look for a secretary.’

Swahili has a mixed gender system. The verb agrees in gender as well as in number and person, by means of a marker (Seidl & Dimitriadis 1997). It is overtly included, first of all, when the object is definite, and then, when it is animate.<sup>121</sup> See example (273) taken from Croft (1990: 129-130).

Swahili. Niger-Congo.

- (273) a. ni-li-**mw**-ona        yule mtu  
           1.SG-PST-**OBJ**-see the person  
           ‘I saw the person.’
- b. ni-li-**mw**-one        mto mmoja  
           1.SG-PST-**OBJ**-see person one  
           ‘I saw one person.’
- c. ni-li-ki-soma        kitabu  
           1.SG-PST-**OBJ**-read book  
           ‘I read the book.’
- d. ni-li-soma        kitabu  
           1.SG-PST-read book  
           ‘I read a book.’

As we have seen in the previous examples from different language families and areas, overt gender marking is often related to the overt appearance of a pronoun that agrees in

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<sup>121</sup> The corpus-based study by Seidl & Dimitriadis (1997) demonstrates that there are examples of non overtly marked animate objects as well. Categories such as salience, presupposedness, new vs. old referring entities, and so on affect also overt marking.

gender, and presumably in other features as well. This is not the case for the following example from Akan. Here, animacy conditions the overt realization of a gender marker, not a pronoun, which precisely marks the feature of [+human] gender. Thus, animacy operates in two ways in this example: as a condition (AnimC) for the overt marking of the feature of gender, and as a semantic feature (AnimF), since in this language there is a human/nonhuman gender distinction. Note from example (274) (Osam 1993/1996: 156-157), that the [+animate] gender marker *ba-* is attached to numerals modifying human entities, whereas it is forbidden for nonhumans and even animates.<sup>122</sup>

Akan. Niger-Congo

- (274) a. nyimpa ba-anan  
           people ANIM-four  
           ‘four people’
- a’. (?)nyimpa anan  
       people four  
       ‘four people’
- b. n-dua anan  
       CLASS.PL-tree ANIM-four  
       ‘four trees’
- b’. n-dua \*ba-anan  
       CLASS.PL-tree ANIM-four  
       ‘four trees’

Other cases such as that of Akan, in which the animate gender is overtly marked, but the inanimate one does not have a proper marker or form, can be found all over the world, although scarcely. As shown in example (275) from Dutch (de Swart, Lamers, & Lestrade 2008: 132), some quantifiers take the animate marker *-n* when they are co-referenced with an animate entity, and in many Chinantecan languages the animacy marker employed with animate controllers in different targets is *-y* (cf. footnote 76).

<sup>122</sup> In fact, *ba-* may not be included when the number modifies an NP, but it is compulsory if the number is a pronoun.

Dutch. Indo-European.

(275) a. de studenten hebben beide-n het boek gelezen  
 the students have both-ANIM the book read  
 ‘The students both read the book.’

b. de boeken werden beide door de studenten gelezen  
 the books were both by the students read  
 ‘Both books were read by the students.’

### 1.2.2. *Animacy as a condition for non-semantic gender values*

In the examples studied here, animacy conditions the gender-value in a system that is not semantically based. As I will show, in the first two languages mentioned (not in the third) animacy also determines overt gender marking as an epiphenomenon, but what I want to highlight here is that the value these markers have does not have a semantic basis.

In the Arabic spoken in Cairo, gender agreement is sex-based in the singular. In the plural there is no gender agreement, but some semantically plural entities agree in the feminine singular, even if they are not semantically female (Corbett 2000: 207-210). Using the plural generic marker or the feminine (singular) depends on animacy, being humans, then animate entities, and finally the inanimate ones more keen on using the plural. See example (276) (Corbett 2000: 209).

Arabic, Egyptian Spoken. Afro-Asiatic.

(276) riggaala kuwayyis-inn/kuwayyis-a  
 man.PL nice-PL/nice-FEM.SG  
 ‘nice men’

In Afar, not having a gender distinction in the plural as in Egyptian Spoken Arabic, when the subject is formed by two conjoined NPs, as opposed to Egyptian Spoken Arabic, the more inanimate the NPs are, the more compulsory the feminine (singular) agreement is. See example (277) (Corbett 2000: 203-5).

Afar. Afro-Asiatic.

(277) woò baacoytaa-kee kày toobokoyta temeete/yemeeten  
 that poor.man-and his brother came.FEM.SG/came.PL  
 ‘that poor man and his brother came.’

The case of Jamamadí follows the example of Egyptian Spoken Arabic, since it is also the animate entity that does not trigger semantic agreement. In this language, to encode the plural, a pronoun agreeing in person and number is introduced after the NP, but only if it is animate. What is important at this point is that this pronoun, only available for animates, always triggers feminine verbal agreement irrespective of the biological sex, as can be seen by looking at the example in (278) (Pawley 2006: 88).

Jamamadí. Arauan.

- (278) a. jomee tafa-ka  
 dog eat-DECL.MASC  
 ‘The dog is eating.’
- b. jomee mee tafa-ke  
 dog 3.PL eat-DECL.FEM  
 ‘The dogs are eating.’

### 1.2.3. *Animacy as a condition for the resolution of gender agreement conflicts*

Another interaction between gender and animacy as a condition can be found in precedence rules, when entities belonging to different genders must agree in the same target. As we will see, this has been studied for Bantu languages by Corbett (1991) and Maho (1999) among others, but it is also present in other languages.

The North American language Ojibwa has a semantically based animate/inanimate gender system, but some biologically inanimate entities are considered animate. However, gender conflict resolution is more attached to biological animacy. In conjoined structures, if all conjoined NPs are animate (semantically or not), animate agreement applies. On the other hand, if all conjoined NPs are semantically inanimate, inanimate agreement must be used, even if one of the conjoined NPs is grammatically animate (Corbett 1991: 265, 303-304).

In Australia, Gunwinggu has a gender system that distinguishes masculine, feminine, vegetable, and neuter. It is not based purely on animacy since biologically animate entities can also be found in the neuter gender, and not all of the masculine or feminine items are animate. However, when there is a gender conflict for agreement, agreement happens in a pure animate/inanimate dichotomy: animate entities agree in the masculine gender and the inanimates in the vegetable gender (Aikhenvald 2000: 55).

Closer to Europe, in Latin, masculine, feminine, and neuter genders are not usually semantic. When two conjoined NPs must agree on the verb, if both belong to the same gender, agreement takes place in that gender. If they belong to different genders but both are humans, masculine agreement is used, but otherwise, neuter gender must be employed (Corbett 1991: 287).

Polish has a masculine/feminine/neuter non-semantic verbal agreement system in the singular. In the plural, however, there is a masculine-human vs. remaining gender system, the former including almost only human males, and the latter including nonhuman masculines, as well as both human and nonhuman feminines and neuters. To be sure, the masculine/feminine/neuter classification is not semantic in the singular, but it is in the plural (males/remaining). When conjoined NPs belonging to different genders must agree in the plural in the verb, there is a conflict in which animacy acts partially (Corbett 1991: 286). If the conjunction includes a masculine human NP, masculine human agreement rules. If the conjunction includes both masculine (either syntactic or semantic) and human features even if not in the same NP, masculine human agreement is optionally used. If there is a masculine NP nonhuman but animate, masculine human agreement can optionally be employed. Otherwise, it is the other form (that for nonhuman masculines, feminines, and neuters) that appears.

The case of Romanian is similar, although more simple. Gender assignment is not largely semantic, and follows the pattern in Table 169 (Corbett 1991: 151). Note that in the singular there is a feminine/everything else system, and a masculine/everything else in the plural. As in Polish, when NPs belonging to different genders are conjoined, verbal agreement is resolved partially by means of animacy, together with sex. If one of the NPs is male and animate, the agreement marker must be *i*, as when all the conjoined NPs are masculine (even if they are inanimate). Otherwise, *e* is used. See an example in (279) (Corbett 1991: 288-290).

**Table 169.** Gender system in Romanian.

Sg	Gender	Pl
∅	Masculine	<i>i</i>
	Neuter	<i>e</i>
<i>ă</i>	Feminine	

Romanian. Indo-European.

- (279) peretele           și       scaunul...        ele...  
           wall.MASC.the   and   chair.NEUT.the   they.FEM/NEUT.PL  
           ‘The wall and the table... they...’

When two NPs are conjoined in Archi, verbal gender agreement must always be plural. Gender I/II agreement is used for plural human entities, and III/IV for plural nonhuman ones. Consequently, when NPs belonging to genders I or II and III or IV are conjoined, there is a gender agreement conflict in the verb. In this language animacy resolves the conflict: when one of the conjoined NPs is a human entity, agreement must be done in gender I/II; thus, animate agreement overrides the inanimate one, as can be seen in example (280) (Corbett 1991: 271-273).

Archi. North Caucasian.

- (280) dija-wu           marzi-k’olōr-u       x̣ak b-i  
           father.I-and   loom.IV.PL-and   near I/II.PL-are  
           ‘Father and the loom are near.’

Another Caucasian language, Ghodoberi, has a masculine/feminine/neuter system in the singular and a human/neuter system in the plural. With conjoined NPs, which agree in the plural, if all the conjoined elements are human, human agreement is used and if all of them are neuter, the agreement is made in the neuter. Finally, when conjoined NPs belong to different genders, an alternative comitative construction is used, although some young speakers allow human agreement. Compare examples in (281) (Corbett 2006: 245-246). The related languages Bats and Tsakhur, in (282), also have a human/nonhuman verbal agreement in the plural, and resolve the conflict in the same way, with an alternative construction, even if for young speakers human agreement is also possible (Corbett 2006: 247).

Ghodoberi. North Caucasian.

- (281) a. waci-la                           Xaji-la                           \*b-aga.  
           boy(MASC)[SG]-and   dog(NEUT)[SG]-and   PL-arrived  
           ‘The boy and the dog arrived.’
- b. waci                           Xaji-lali                           w-aga.  
           boy(MASC)[SG]   dog(NEUT)[SG]-COM   MASC.SG-arrived  
           ‘The boy arrived with the dog.’

Tsakhur. North Caucasian.

- (282) dak-i:                    balkan                    Xa:            (?)wobummi/\*wodummi  
           father(I)[SG]-and horse(III)[SG] at.home be.HUM.PL/be.NHUM.PL  
           ‘Father and the horse are at home.’

In the Dravidian branch, Tamil and Telugu also use alternative constructions when there is an agreement conflict. In Tamil, if both conjoined NPs are rational,<sup>123</sup> rational agreement is used. Likewise, nonrational gender appears when conjoined NPs are not rational. When both are mixed, an alternative construction such as a comitative or the coordination of two whole sentences must be employed, since the rational agreement is not grammatical, as can be seen in example (283) (Corbett 1991: 269-270). Telugu, however, allows rational agreement with mixed conjoined NPs in some spoken varieties, but it is more common to have a comitative or modal construction in these cases; therefore, the example in (284) (Corbett 1991: 270-271) would be acceptable in this languages, together with structures such as ‘She came with the dog’ or ‘She came bringing the dog’.

Tamil. Dravidian.

- (283) \*raaman-um            nay-um            va-nt-aanka  
           Raman-and            dog-and            come-PST-3.PL.RAT  
           ‘Raman and the dog came.’

Telugu. Dravidian.

- (284) (?)aaviDaa    kukkaa            vaccaeru  
           she.and    dog.and            came.3.PL.RAT  
           ‘She and the dog came.’

As pointed out above, agreement conflict resolution has been studied in Bantu languages. These languages, although not all of them, tend to have a big gender system, based on semantic but mainly on formal criteria. This system can be seen in a rich variety of noun-prefixes or nominal classifiers, and also in prefixes attached to different targets or concords, following Maho’s (1999) terminology. Genders 1 and 2 are consistently and pervasively employed for human entities, in the singular and plural respectively, even if not all human entities agree in this gender, and not all members in these groups are humans (Corbett 1991: 273; 2006: 249). As we will see, when elements belonging to different gen-

<sup>123</sup> The term rational is used instead of ‘human’, because deities are also included in this gender.



ders must agree in the verb, Bantu languages may use syntactic or semantic resolution rules. Among the latter, animacy usually provides the basis to resolve the conflict (Corbett 1991: 275-6).

In Swahili, Likila, Lingala, Ganda, Ndonga, and Bemba, human/nonhuman-based agreement distinction overrides a system not based on pure animacy criteria. As can be seen in example (285) from Bemba, with conjoined human NPs having different classifiers, and thus belonging to different genders, verbal agreement in the canonically human-plural gender 2 is compulsory, whereas gender 8 agreement must be used with conjoined nonhuman NPs, irrespective of their classifier. When both a human NP and a nonhuman NP are conjoined, there are two options: an alternative construction, or a nonhuman agreement in gender 8 (Corbett 1991: 275; Maho 1999: 119). Luvale follows the same rule, except that it does not allow any alternative construction (Corbett 1991: 275).

Bemba. Niger-Congo

(285) a. im-fumu    na    i-shilu    **ba**-aliile  
           9-chief    and    5-lunatic    2-left  
           ‘The chief and the lunatic left.’

b. ici-tabo, ubu-sanshi na    ulu-balala    **fi**-li    kuno  
           7-book    14-bed    and    11-peanut    8-be here  
           ‘The book, the bed, and the peanut are here.’

Rules in Shona are slightly different, since when a human NP is conjoined with a non-human one, agreement happens in the canonical human plural gender 2, and not in gender 8, which is employed when both NPs are inanimate. Moreover, when the conjunction is made between an NP denoting an animal and a inanimate NP, gender 10, that used mainly for animals in the plural, is employed for agreement, so a human > animate > inanimate triad can be traced. In example (286) provided by DeLancey (1981: 644), we can see how human beings override animates for gender agreement. Note that the terminology employed for glossing genders differs from that used by Corbett. The Bangi language also has a human > animate > inanimate ranking, since if one of the conjoined NPs is human agreement in gender 2 is favored, with no humans but an animate NP gender 8 is used, and when all the conjoined NPs are inanimate agreement takes place in gender 6, as examples in (287) show (Maho 1999: 117). Apart from this semantic resolution, Bangi can employ a syntactic resolution rule, which is marking the verb in the same gender of the last NP of

the conjoined phrase. As a consequence, we could have respectively *ma-osila*, *mi-öwa*, and *bö-öbula* (Maho 1999: 119).

Shona. Niger-Congo.

- (286) a. mùrúmé né ìmbwá vá-kà-fámbá.  
 man and dog GENDER:HUM.PL-PST-walk  
 ‘The man and the dog walked.’
- b. \*mùrúmé né ìmbwá dzá-kà-fámbá.  
 man and dog GENDER:ANIM.PL-PST-walk  
 ‘The man and the dog walked.’

Bangi. Niger-Congo.

- (287) a. bā-tô nā bī-lokō nā mā-mbi ba-ösila  
 2-human and 8-thing and 6-palaver 2-are.come.to.an.end  
 ‘People and things and palavers are come to an end.’
- b. bī-lokō nā mī-lēkē bī-öwa  
 8-thing and 4-bird 8-are.dead  
 ‘Things and birds are dead.’
- c. bī-lokō nā bô-līngo ma-öbūla  
 8-thing and 14-love 6-are.increased  
 ‘Things and love are increased.’

Xhosa is a Bantu language as well, but shows a different resolution system comparing to those of other Bantu languages. When two NPs belong to different genders, one of them must be extracted, as can be seen in example (288a) (Mallinson & Blake 1981: 206). However, when both are animate, a semantic resolution is also available, apart from that of extraction. Even if they both belong to genders other than the canonical 1/2 gender for animates, agreement takes place in this canonical gender (cf. (288b)).

Xhosa. Niger-Congo.

- (288) a. igquira li-yagoduka nesanuse  
 doctor(5/6) 5/6-go.home and.diviner(7/8)  
 ‘The doctor is going home, and the diviner.’

- b. igquira          nesanuse          ba-yagoduka  
 doctor(5/6)    and.diviner(7/8)    2-go.home  
 ‘The doctor and the diviner are going home.’

In summary, the examples above show that animacy tends to override not (purely) semantic gender assignment in cases of conflict, either in animacy-based or sex-based systems, and even in bigger ones. When a human entity is in conflict with a nonhuman one, usually it is the human one that controls the agreement, although we have instances of the opposite in Luvala or Ojibwa. It is common in languages from different families and areas to use alternative structures to avoid conflicts.

### 1.3. Animacy as a value-dependent semantic feature

This section deals with examples in which animacy is a semantic feature (AnimF) present in the configuration of the gender system of a language, thus being overtly encoded in different targets, but with some restrictions. In the cases studied here, the animate/inanimate gender distinction is only visible in some values, and not pervasively in the whole paradigm.<sup>124</sup>

Under the feature of number (§ 1.3.1) I will show which values are more prone to show an animacy split. Equally, those splits may be restricted to just a single value or a set of values of the features of person (§ 1.3.2) or gender (§ 1.3.3), but also to other more special ones such as tense (§ 1.3.4), affectedness (§ 1.3.5), specificity (§ 1.3.6), distance (§ 1.3.6), and existence (§ 1.3.8).

#### 1.3.1. *Number values*

The vast amount of instances in my corpus in which an animacy split is restricted to a single number-value, or to a small set of them, have permitted us to extract more conclusions and make more subsections. I will show that animacy splits are more common in the plural. This can be traced in systems in which there is an animacy split in the plural and there is no distinction in other number values (§ 1.3.1.1), or when the splits are different in

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<sup>124</sup> These value-dependent animacy splits can also be found outside gender systems in several targets, although I have not studied them systematically in this dissertation. An instance can be found in Basque. In this language only the locative cases (inessive, ablative, and allative) have an animacy split, realized by the insertion of the morpheme *-ga(n)* for animates, between the root and the case marker (cf. Santazilia 2013: 226-227).

the plural and in the other number-values, but it is in the plural that the animacy split is more straightforward (§ 1.3.1.2). Moreover, in § 1.3.1.3 I have provided examples in which the language has evolved toward a system in which the plural shows an animacy-split more clearly than the remaining values, from a diachronic perspective. Exceptions to the rule have been mentioned in § 1.3.1.4.

#### 1.3.1.1. Animacy in the plural, and no split in the remaining values

It is common to find an animacy split restricted only to a number in a paradigm. Actually, I have found many examples of an animacy distinction restricted to the plural value. To those of Karok, Yuki, and Yana already mentioned by Siewierska (2004: 109), I will add further instances.

In many unrelated languages, personal pronouns show an animate/inanimate distinction only in the plural, following the pattern in Figure 61. Even if Baerman, Brown, & Corbett (2005: 83) think that this is an uncommon phenomenon, I could cite examples from languages like Dagaare, Fur (only in personal prefixes), Kiribati (only in the object and possessive affixes), Wandamen, Katu, and Palauan (Siewierska 2004: 109-110), and also from Usila Chinantec (Skinner & Skinner 2000: 490), and Blackfoot (Russell *et al.* 2012: 71). The example provided in Table 170 comes from Dagaare (Siewierska 2004: 109), but additional instances and paradigms can be found in § IV.1. Of course, this pattern in Figure 61 is also present in categories other than pronouns. See, as an instance, the pattern for a few adjectives that agree in number in Usila Chinantec, in Table 171 (Skinner & Skinner 2000: 478).

**Figure 61.** Animacy distinction pattern in the plural.

	Sg	Pl
Animate/Human	a	b
Inanimate/Nonhuman		c

**Table 170.** 3rd person free personal pronouns in Southern Dagaare.

	Sg	Pl
Human		<i>bana</i>
	<i>ono</i>	
Nonhuman		<i>ana</i>

**Table 171.** Animacy in the plural of the adjective ‘big’ in Usila Chinantec.

	Sg	Pl
Inanimate		<i>cab<sup>2</sup></i>
	<i>pa<sup>1</sup></i>	
Animate		<i>canh<sup>2</sup></i>

A different example from the verbal paradigm of Me’phaa shows that the animacy distinction can also be identifiable in the plural. In this language there is a small group of verbs that have a different form for animate objects if they are plural, as can be seen in Table 172, which includes the forms for the verb ‘to hit’, when the object is 3rd person singular (Marlett 2012: 10).

**Table 172.** Paradigm of the verb ‘to hit’ in Me’phaa.

		Object			
		Inanimate		Animate	
		Sg	Pl	Sg	Pl
Sg	1	<i>nijxmuu</i>	<i>nijxmuu</i>	<i>nijxmuu</i>	<i>nijxmuun</i>
	2	<i>nirajxnáá</i>	<i>nirajxnáá</i>	<i>nirajxnáá</i>	<i>nirajxnúún</i>
	3	<i>nijxnúu</i>	<i>nijxnúu</i>	<i>nijxnúu</i>	<i>nijxnúún</i>
Pl	1 Inclusive	<i>nijxnáá(lú)</i>	<i>nijxnáá(lú)</i>	<i>nijxnáá(lú)</i>	<i>nijxnúún(lú)</i>
	1 Exclusive	<i>nijxnáaxu</i>	<i>nijxnáaxu</i>	<i>nijxnáaxu</i>	<i>nijxmuunxu</i>
	2	<i>nijxnáa(la)</i>	<i>nijxnáa(la)</i>	<i>nijxnáa(la)</i>	<i>nijxmuun(la)</i>
	3	<i>nijxnáá</i>	<i>nijxnáá</i>	<i>nijxnáá</i>	<i>nijxnúún</i>

The marking of animacy in the plural can also be a tendency. In the North and Central dialects of Cappadocian Greek, the use of the article is restricted to the accusative case, which follows the pattern in Table 173 (Janse 2004: 5-7). Nouns having an *o*-stem, originally masculine, take the masculine article if they are animate, and inanimates take the neuter one. The example shows, however, that the animacy distinction is more consistent in the plural, as in the singular there is occasionally a syncretic form *to*.

**Table 173.** The article in Cappadocian Greek.

	Sg	Pl
Masculine (Animate)	<i>to(n)</i>	<i>tus</i>
Neuter (Inanimate)	<i>to</i>	<i>ta</i>

Even in number systems bigger than those with a singular/plural distinction, animacy seems to appear more in the plural than in other values. Biak illustrates this statement, as shown in Table 174 (van den Heuvel 2006: 66).

**Table 174.** 3rd person bound pronouns in Biak.

		Singular	Dual	Paucal	Plural
Set 1	Animate	<i>i-</i>	<i>su-</i>	<i>skeo-</i>	<i>si-</i>
	Inanimate				<i>na-</i>
Set 2	Animate	<i>d-</i>	<i>su-</i>	<i>ske-</i>	<i>s-</i>
	Inanimate				<i>n-</i>
Set 3	Animate	<y>	<i>su-</i>	<i>skeo-</i>	<i>s-</i>
	Inanimate				<i>n-</i>

### 1.3.1.2. Different splits in the plural and the remaining

When splits and syncretisms are different in the singular and the plural, that is to say, when some of the distinctions are not autonomous (Corbett 2011) and can only be defined by considering both the singular and the plural, it is often the latter that shows in a more straightforward way an animate/inanimate or human/nonhuman split. Here, two different groups must be made: a) that in which the animacy-based split is only identifiable in the plural, and b) that in which, having this split both in the singular and the plural, the singular has additional splits apart from the animacy-based one.

In the first group (a) I could include examples of some Arawakan languages. As can be seen in Table 175, from Arawak (Aikhenvald 2000: 50), in these languages there is a *genus alternans* phenomenon (cf. Igartua (2006) for similar cases in Indo-European), since there is a masculine/remaining split in the singular (cf. § 1.1.1.2), but an animate/inanimate one in the plural. Therefore, the feminine gender is nonautonomous (Corbett 2011). There are

examples of this very pattern also in the Dravidian family: the example in Table 176 comes from Telugu (Corbett 1991: 153, 202).

**Table 175.** 3rd person pronouns in Arawak.

	Sg	Pl
Masculine	<i>li</i>	<i>ne</i>
Feminine		
Neuter	<i>tho</i>	<i>tho</i>

**Table 176.** 3rd person personal pronouns in Telugu.

	Sg	Pl
Masculine	<i>vaaDu</i>	<i>vaaLlu</i>
Feminine		
Neuter	<i>adi</i>	<i>avi</i>

Some Caucasian languages have a system in which, due to syncretisms, an animacy split cannot be traced in the singular, but it is straightforward in the plural.<sup>125</sup> In the case of Chamalal (Table 177), we cannot consider that there is any animacy distinction in the singular, since the form for the feminine singular *j* is syncretic with forms of other nonhuman genders (Ortmann 1998: 65). In Bezhta (Table 178) the syncretisms in the singular allow tracing a masculine/animate/inanimate paradigm, which is, once again, clearer in regards to animacy, in the plural (Ortmann 1998: 65). In Khinalugh (Corbett 1991: 119-121, 197-198) the singular is even more unpredictable since male humans and remaining nouns are syncretic, but the plural is again clear, as can be seen in the gender markers of different types, which, even if they have different forms, always follow the same syncretism pattern (cf. Table 179, Table 180 and Table 181). The verbal gender/number markers proceeding from demonstratives, in Table 182, however, follow the same pattern as markers in Bezhta (Table 178).

<sup>125</sup> The forms reconstructed for Proto-East-Caucasian and the syncretisms therein (cf. Table 193) are also partially present in the examples of these Caucasian languages.

**Table 177.** Gender/number markers in Chamalal.

	Sg	Pl	
I	<i>v</i>	<i>b</i>	Human masculine
II	<i>j</i>		Human feminine
III	<i>j/l</i>	<i>j</i>	Other
IV	<i>j/v/d</i>		

**Table 178.** Gender/number markers in Bezhta.

	Sg	Pl	
I	∅	<i>b</i>	Human masculine
II	<i>b</i>		Human feminine
III	<i>b</i>	<i>j</i>	Animals, things
IV	<i>j</i>		Things

**Table 179.** Verbal gender/number markers before a consonant in Khinalugh.

	Sg	Pl	
I	∅	<i>b</i>	Human masculine
II	<i>z</i>		Human feminine
III	<i>b</i>	∅	Most remaining animates and some inanimates
IV	∅		Everything else, including abstract nouns

**Table 180.** Verbal gender/number markers before a vowel in Khinalugh.

	Sg	Pl	
I	<i>j</i>	<i>v</i>	Human masculine
II	<i>z</i>		Human feminine
III	<i>v</i>	<i>j</i>	Most remaining animates and some inanimates
IV	<i>j</i>		Everything else, including abstract nouns



**Table 181.** Verbal gender/number markers in the imperative ‘to be’ in Khinalugh.

	Sg	Pl	
I	<i>b</i>		Human masculine
II	<i>s</i>	<i>f</i>	Human feminine
III	<i>f</i>		Most remaining animates and some inanimates
IV	<i>b</i>	<i>b</i>	Everything else, including abstract nouns

**Table 182.** Verbal gender/number markers coming from demonstratives in Khinalugh.

	Sg	Pl	
I	<i>du</i>		Human masculine
II	<i>da</i>	<i>dur</i>	Human feminine
III	<i>da</i>		Most remaining animates and some inanimates
IV	<i>zi</i>	<i>zi(lʰ)</i>	Everything else, including abstract nouns

Even in systems in which cultural or non-semantic factors make gender assignment really difficult to predict, animates or humans are put together in a more straightforward way in the singular than in the plural. I will illustrate this with some examples. The gender system in the Caucasian language Lak (Corbett 1991: 24-26, 207) is semantic, but largely unpredictable just by means of animacy, although it is also involved. Gender I is for male humans, gender II for female humans (usually older), gender III for other animates, some female humans, and many inanimates, and gender IV is for very few animates and some inanimates. Thus, once again, genders I and II are for humans and spiritual beings, but not all humans belong to genders I and II. Nonrational animates (animals, insects, and so forth) and most inanimates are included in gender III, but also daughters and women outside the family (Corbett 2012: 139).<sup>126</sup> Gender IV is for few animates (butterfly, spider, cats (dialectal)...), some objects, liquids, and abstract nouns. Moreover, some nouns belonging to genders III and IV are difficult to predict: plants can be in genders III and IV) months are in gender III, days in gender IV, and sometimes the meaning can change depending on

<sup>126</sup> Corbett explains this by means of respect. ‘Daughter’ being in gender III, this gender becomes a way of showing politeness to young women, and by extension, to all women not too close.

the gender: ‘House’ is in gender III in the singular and in IV in the plural.<sup>127</sup> The word for ‘doctor’ can take gender I, II, or III depending on whether the doctor is a man, older woman, or younger woman (Corbett 1991: 181). Somehow, gender III is used for politeness with young girls. The paradigm of gender markers is provided in Table 183 (Ortmann 1998: 64). As can be seen, gender markers may appear at the beginning of the word or not, depending on the category that takes them. If we consider that genders I and II are the canonical ones for humans, and that in gender III we can also find some humans, then it could be argued that there is a more consistent human/nonhuman distinction in the plural, since in the singular genders II and IV are syncretic.

**Table 183.** Gender markers in Lak.

Sg	Gender	Pl
Ø-/- <i>w</i> (-)	I	
<i>b</i> -/- <i>w</i> (-)	III	<i>b</i> -/- <i>w</i> (-)
	II	
<i>d</i> -/- <i>r</i> (-)	IV	<i>d</i> -/- <i>r</i> (-)

In the Niger-Congo family, too, in which there are usually big gender systems, we can find instances of languages in which the animacy-based gender distinction is realized only in the plural. In Fulah, especially in the Maasinankore dialect, shown in Table 184 (Baerman, Brown, & Corbett 2005: 87), the gender system in the singular does not show any clear animacy-based split since, for instance, humans and large animates share the same marker. The plural is rather more simple: four clear groups emerge, three of them being animacy-based: human/(largely) animate/inanimate/augmentative. Moreover, all the genders that take ‘*de*’ may take ‘*di*’ as well, as there is an increasing tendency to spread it to inanimates. Thus, it seems that an evolution in the plural toward a human/nonhuman/augmentative distinction is taking place.<sup>128</sup> Kisi, in the Bantu branch, also has a more predictable system in the plural than in the singular from the point of view of

<sup>127</sup> In Hunzib there is also an exception like that. The word for ‘child’ takes gender V agreement in the singular and I/II in the plural. In Khvarshi child takes gender III when singular and I/II when plural, like two further words meaning ‘family’. Archi has something similar (Corbett 1991: 170).

<sup>128</sup> For more instances of diachronic evolutions toward clearly animacy-based systems in the plural, see § V.1.3.1.3.

animacy, as can be inferred from Table 185 (Baerman, Brown, & Corbett 2005: 88), which is based on a sample of 910 nouns. Because gender assignment in the singular is difficult to characterize, the plural is semantically more coherent: *a-* is for animates, *i-* for long objects, *ma-* for liquids and juicy plants, sharp and pointed objects, and *la-* is default for inanimates (except the *i-/η-* group). Once again, the animate/inanimate distinction is more consistent in the plural.

**Table 184.** Gender markers in the Maasinankore dialect of Fulah.<sup>129</sup>

Sg	Pl	
<i>’o</i>	<i>be</i>	Human
<i>’o</i>	<i>’di</i>	
<i>nge</i>	<i>’di</i>	Largely animate
<i>ndu</i>	<i>’di</i>	
<i>ngol</i>	<i>’di</i>	
<i>ndi</i>	<i>’de</i>	
<i>nde</i>	<i>’de</i>	
<i>ngo</i>	<i>’de</i>	
<i>ba</i>	<i>’de</i>	Inanimates, nasty animals
<i>ki</i>	<i>’de</i>	
<i>ka</i>	<i>’de</i>	
<i>ngal</i>	<i>’de</i>	
<i>ngel</i>	<i>kooy</i>	Augmentative

<sup>129</sup> Some minor genders have been removed.

**Table 185.** Gender markers in Kisi.

Sg	Pl		
<i>o</i>	<i>la</i>	Non semantic core: default class for borrowed inanimates not denoting liquids	43.4 %
	<i>a</i>	Virtually all animates	27.3 %
<i>i</i>	<i>ŋ</i>	Inanimate: little semantic cohesiveness (maybe small and round objects)	15.4 %
	<i>i</i>	Long and thin, string-like objects	4.3 %
<i>le</i>	<i>la</i>	Inanimates: productive for deverbal or denominal abstract nouns	3.2 %
	<i>ma</i>	Liquids (productive for borrowings), pointed objects	3.1 %
<i>o</i>	<i>i</i>	Trees and tree-like plants	3 %

The other group (b) is that in which an animate/inanimate cut can also be visible in the singular, but it has further distinctions as well, leaving the animacy split clearer in the plural.

Many examples of this phenomenon are related to the fact that in the singular animates or humans have a further sex-based split, lacking in the plural, which has, consequently, a clearer animacy-based distinction. See the example of gender markers (Table 186) in Ghodoberi (Corbett 2006: 245), and 3rd person remote personal pronouns (Table 187) and verbal morphology (Table 188) in Kannada (Ortmann 1998: 65-66).

**Table 186.** Gender markers in Ghodoberi.

	Sg	Pl	
Masculine	<i>w-</i>	<i>b-</i>	Human
Feminine	<i>j-</i>		
Neuter	<i>b-</i>	<i>r-</i>	Neuter

**Table 187.** 3rd person remote pronouns in Kannada.

	Human		Nonhuman
	Masculine	Feminine	Neuter
Sg	<i>avanu</i>	<i>avaLu</i>	<i>avu</i>
Pl	<i>avaru</i>	<i>avaru</i>	<i>avu</i>

**Table 188.** Paradigm of the 3rd person of the verb 'to do' in Kannada.

		Human		Nonhuman
		Masculine	Feminine	Neuter
Present	Sg	<i>ma:Dutta:ne</i>	<i>ma:Dutta:Le</i>	<i>ma:Duttade</i>
	Pl	<i>ma:Dutta:re</i>	<i>ma:Dutta:re</i>	<i>ma:Duttave</i>
Past	Sg	<i>ma:Dida(nu)</i>	<i>ma:DidaLu</i>	<i>ma:Ditu</i>
	Pl	<i>ma:Didaru</i>	<i>ma:Didaru</i>	<i>ma:Didavu</i>

In bigger gender systems, it is also the plural that shows the animacy split in a clearer way. See the paradigm of personal pronouns in Zande, provided in Table 189.<sup>130</sup> In this language humans and animates belong to different genders, but in the singular sex is distinguished for humans, and this distinction is neutralized in the plural, which has a pure human/animate/inanimate pattern (Corbett 1991: 194-195).

**Table 189.** 3rd person personal pronouns in Zande.

	Sg	Pl	
Masculine	<i>ko</i>		Human
Feminine	<i>ri</i>	<i>i</i>	
Animate	<i>u</i>	<i>ami</i>	Animate
Neuter		<i>si</i>	Inanimate

<sup>130</sup> There is a further pronoun *ni*, used for unknown or nonspecific individuals (Corbett 1991: 223).

The neutralization of the sex distinction in the plural leading to a clearer animacy split seems to be a fact, even in systems in which there are more number distinctions. Worrorra, in Australia, is an example. This language has proximate, medial, and remote pronouns, but only the forms for proximates have been included in Table 190 (Siewierska 2004: 107-108). Note that sex distinction is not available in the plural, but is present in the remaining numbers.<sup>131</sup>

**Table 190.** 3rd person proximate personal pronouns in Worrorra.

	Singular	Dual	Trial	Plural
Masculine	<i>'indja</i>	<i>ij'gandu</i>	<i>'inguri</i>	<i>'arka</i>
Feminine	<i>'nijina</i>	<i>nij'gandinja</i>	<i>'njingurinya</i>	
Neuter	<i>'wuna wun</i>	<i>'gandu</i>	<i>'wunguri</i>	<i>'wuna</i>
Neuter	<i>'mana man</i>	<i>'gandum</i>	<i>'mangurim</i>	<i>'mana</i>

Although in a more intricate way, Yimas is a language with a bigger system than that which distinguishes just singular and plural, which also supports the idea of having a clearer animacy-based distinction in the plural than in other numbers. This language has a mixed gender system with eleven distinctions. Table 191 includes a selection of gender markers that are attached to adjectives and verbs (Corbett 1991: 176-177). Gender I includes male humans, gender II is for female humans, animates belong to gender III, and gender V is a miscellaneous one for elements that do not fit other genders formally or semantically. These genders can only be traced by looking both at adjectival and verbal markers together, and also at number, since syncretisms make animacy clearer in the plural than in other numbers. In the singular, there is no gender distinction in verbal agreement, and in the adjectival one, there is a female/everything else pattern, also present in the adjectival dual agreement. The dual in verbs has a human/nonhuman split. In the plural, on adjectives we have a female/animate/everything else pattern, and in verbs a clear animate/inanimate distinction. To be sure, if we do not consider the sex distinction present in adjectival agreement, an animate/inanimate distinction runs through the plural of both adjectives and verbs, a human/nonhuman one in the dual of verb agreement, and there is no animacy distinction either in the dual of adjectives, or in the singular of both.

<sup>131</sup> The two types of neuters are formally conditioned, and the distinction is not important for this purpose.

**Table 191.** Selection of some gender markers in adjectives and verbs in Yimas.

	Adjectives			Verbs		
	Sg	Du	Pl	Sg	Du	Pl
I	<i>-n</i>	<i>-rim</i>	<i>-um</i>	<i>na-</i>	<i>impa-</i>	<i>pu-</i>
II	<i>-nman</i>	<i>-nprum</i>	<i>-nput</i>	<i>na-</i>	<i>impa-</i>	<i>pu-</i>
III	<i>-n</i>	<i>-rim</i>	<i>-um</i>	<i>na-</i>	<i>tima-</i>	<i>pu-</i>
V	<i>-n</i>	<i>-rim</i>	<i>-ra</i>	<i>na-</i>	<i>tima-</i>	<i>Ø-i-a-</i>

In addition to the sex distinction in the singular lacking in the plural, the singular may have other gender distinctions among inanimates, absent in the plural. In the Niger-Congo language Godié the human/nonhuman distinction is clear both in singular and plural personal pronouns. However, as there are three different forms for nonhumans in the singular, the split in the plural is clearer (Corbett 2000: 186). See Table 192.

**Table 192.** 3rd person personal pronouns in Godié.

	Sg	Pl
Human	<i>ɔ</i>	<i>wa</i>
	$\varepsilon$	
Nonhuman	<i>a</i>	<i>ɪ</i>
	$\emptyset$	

In Tsakhur and Archi, both Lezgian languages, all the gender distinctions in the singular, both for animates and inanimates, are neutralized in favor of a pure animate/inanimate distinction in the plural. The gender system of Tsakhur is provided in Figure 62 (Corbett 2006: 31), and that of Archi, in Figure 55. The syncretisms in the plural are reflected respectively in Figure 63 and Figure 64 (cf. the forms in Table 132). In the singular of Tsakhur we can find animates in all genders and inanimates in genders III and IV, but in the plural there is a human (and deities)/nonhuman (and some deities) distinction. Moreover, the sex-based distinction is also neutralized. In Archi, on the other hand, the animacy-based human/nonhuman distinction is clearer in the plural than in the singular as well, as genders I and II become syncretic, like genders III and IV. This is more evident if we keep in mind that some human entities in the singular can change their gender depending on

their sex (genders I or II) and take gender IV when sex is unimportant or unknown, but in the plural take only the human genders I/II. This means that the humanness distinction is more important than sex distinction in the plural (Corbett 1991: 158).

**Figure 62.** Gender system in Tsakhur.

- I.- Male humans, gods, angels, and so on.
- II.- Female humans and female mythical beings.
- III.- Most of the remaining animates and some inanimates.
- IV.- Some animates, some mythical beings, and inanimates.

**Figure 63.** Gender syncretisms in Tsakhur.

Sg	Pl
I	
II	I-II
III	
IV	III-IV

**Figure 64.** Gender syncretisms in Archi.

	Sg	Pl
I	a	
II	b	c
III	c	
IV	d	d

Let us pay attention to the striking syncretisms between genders in Archi. The marker for animates in the plural is, according to Figure 64, that of entities in gender III in the singular, and not that of male or female humans. Likewise, it is the marker for gender IV that it is used for gender III in the plural. This pattern fits the paradigm reconstructed for Proto-East-Caucasian, provided in Table 193 (Ortmann 1998: 65), although the forms may change from one language to other.



**Table 193.** Gender/number markers for Proto-East-Caucasian.

	Sg	Pl	
I	<i>w</i>	<i>b</i>	Masculine Human
II	<i>j</i>		Feminine Human
III	<i>b</i>	<i>d</i>	Other individuals (animals, plants, material things)
IV	<i>d</i>		Material nouns, collectives

## 1.3.1.3. Diachronic evidence

There are also some diachronic examples of systems in which the plural has either developed or preserved a sharper animate/inanimate opposition than the singular.

As studied in § 1.1.3 and 1.1.4, in the Bantu language Makonde the big gender system (not completely semantic) has been replaced by an animate/inanimate one, but only in the plural, since all animate entities take the plural gender 2, irrespective of the gender they formerly belonged to (cf. example (270) and explanations given therein). This does not happen in the singular, though (Corbett 1991: 255).

The Kru language Grebo had a clear human/nonhuman distinction, shown, for instance, in personal pronouns (cf. Table 194) (Corbett 1991: 200). However, the former human singular form *ɔ* spread, covering not only humans, but all valuable and large elements (including humans), as included in Table 195 (Baerman, Brown, & Corbett 2005: 85). Thus, whereas in the singular we have a system based on importance, in the plural we still have a human/nonhuman one. For example, big animals have a *ɔ* in the singular and *e* in the plural, as they are big and important, but nonhuman.

**Table 194.** 3rd person personal pronoun in Grebo (old system).

	Human	Nonhuman
Sg	<i>ɔ</i>	<i>ε</i>
Pl	<i>o</i>	<i>e</i>

**Table 195.** 3rd person personal pronoun in Grebo (new system).

	Sg	Pl
Important humans and things	$\sigma$	$o$ Human
Everything else	$\varepsilon$	$e$ Nonhuman

The last example comes from Andi, an East-Caucasian language. By comparing dialectal variation in gender systems, a diachronic evolution from Proto-East-Caucasian (Table 193) can be traced (Corbett 1991: 198-200; Baerman, Brown, & Corbett 2005: 86-87). Let us compare the different dialects by looking at their gender markers.

The dialects termed ‘conservative’ by Corbett, in Table 196 (Corbett 1991: 198), have a clear human/nonhuman distinction, with a further sex-based division among the humans. Otherwise, animacy in genders III and IV seems to be affected by other cultural factors, since in gender III for instance, some inanimate entities are grouped together with animates. In contrast, in the Upper Andi Dialect in Table 197 (Corbett 1991: 199), the animacy-based distinction is clearer in the plural, as inanimate entities belonging formerly to gender III (now in gender III-A) have a different plural marker now. Thus, whereas in the singular animates and inanimates are still together in gender III, in the plural there is a distinction triggered by animacy, as animates behave like humans in the plural. However, in gender IV some biologically animate entities, such as insects, and inanimate entities are still together. The Rikvani dialect of Andi, in Table 198 (Corbett 1991: 199), shows a further step of evolution. This dialect, like Upper Andi, has a more evident animacy-based distinction in the plural than in the singular. Moreover, it has extended the distinction to the plural of gender IV, by assigning the plural marker for humans and animates also to insects. At this point, while animacy is well distinguished in the plural (male humans/remaining animates/inanimates), in the singular the distinction is vaguer: (male/female) humans-animates/inanimates-insects/inanimates. If we take this dialectal variation as a diachronic evolution, it is evident that there has been a tendency toward a pure animacy-based gender distinction, first in the plural. It is only in the last phase of evolution, that of Lower Andi dialects, that, by merging all the nonhuman genders and by losing number distinction, a clearer animacy-based system can be found in the whole paradigm, distinguishing humans and nonhumans, and also sex among the former.

**Table 196.** Gender markers in the conservative dialects of Andi.

		Sg	Pl
I	Male humans	<i>w</i>	<i>w</i>
II	Female humans	<i>j</i>	<i>j</i>
III	Most of animates, some inanimates	<i>b</i>	<i>b</i>
IV	Inanimates and insects	<i>r</i>	<i>r</i>

**Table 197.** Gender markers in the Upper Andi dialect.

		Sg	Pl
I	Male humans	<i>w</i>	<i>w</i>
II	Female humans	<i>j</i>	<i>j</i>
III-A	Animates	<i>b</i>	<i>j</i>
III-B	Inanimates formerly in gender III	<i>b</i>	<i>b</i>
IV	Inanimates and insects	<i>r</i>	<i>r</i>

**Table 198.** Gender markers in the Rikvani dialect.

		Sg	Pl
I	Male humans	<i>w</i>	<i>w</i>
II	Female humans	<i>j</i>	<i>j</i>
III-A	Animates	<i>b</i>	<i>j</i>
III-B	Inanimates formerly in gender III	<i>b</i>	<i>b</i>
IV-A	Insects	<i>r</i>	<i>j</i>
IV-B	Inanimates	<i>r</i>	<i>r</i>

**Table 199.** Gender markers in Lower Andi dialects.

		Sg	Pl
I	Male humans	<i>w</i>	<i>w</i>
II	Female humans	<i>j</i>	<i>j</i>
III	Everything else	<i>b</i>	<i>b</i>

## 1.3.1.4. Exceptions

All the examples of animacy conditioned by a number value have shown that the plural tends to be more animacy-friendly than other number values. However, there are some cases that constitute exceptions to the rule. First, I will show those exceptions, and in the second part of the section I will discuss some cases that, appearing to be exceptions, cannot be considered as such.

A clear example comes from the 3rd person personal pronouns of Barasana-Eduria (Jones & Jones 1991: 31), in which animacy affects only the singular paradigm, and not the plural one. See Table 200. Something similar can be found in Guahibo, a language from Venezuela, which has a masculine/feminine/inanimate system in the singular and dual, which is neutralized in the plural (Aikhenvald & Dixon 1999: 373).

**Table 200.** 3rd person personal pronouns in Barasana-Eduria.

		Sg	Pl
Animate	Masculine	<i>ĩ</i>	
	Feminine	<i>so/sõ</i>	<i>ĩ-dã</i>
Inanimate		<i>ti</i>	

The pattern in Klamath-Modoc, a language spoken in Oregon and Northern California, follows the pattern of Barasana-Eduria. In this language there are some classificatory verbs, compatible with a set of nouns (Corbett 2000: 248). One of them is the verb ‘to give’, whose form varies depending on the semantic gender of the given direct object: flat, round, or animate (Table 201). Although the gender distinction, being semantic, is not purely based on animacy, there is a proper verbal form for animate objects. In the plural no gender distinction is made.

**Table 201.** Paradigm of the verb ‘to give’ in Klamath-Modoc.

	Sg	Pl
Round	<i>l'oy</i>	
Flat	<i>n'oy</i>	<i>s?ewan?</i>
Alive	<i>ks'oy</i>	

That is the case also for the articles in Movima, which differentiate whether the co-referencer is present, absent, or no longer exists, as shown in Table 202. In any event, gender distinctions, including animacy, are neutralized in the plural (Haude 2014: 298).<sup>132</sup>

**Table 202.** Articles in Movima.

	Singular			Plural/Mass
	Animate		Inanimate	
	Masculine	Feminine		
Presential/Generic	<i>us</i>	<i>(i)'nes</i>	<i>as</i>	<i>is</i>
Past	<i>us</i>	<i>usnos</i>	<i>os</i>	<i>is</i>
Absential	<i>kus</i>	<i>kinos</i>	<i>kos</i>	<i>kis</i>

In the verbal morphology of Dido, in Table 203, although the gender distinctions are not completely neutralized in the plural, the four gender system with a clear cut at least among humans and nonhumans, and animates and inanimates, can only be traced in the singular, as in the plural there is a male/everything else system (Corbett 1991: 190; 2012: 235).

<sup>132</sup> The pattern is the same for 3rd person personal pronouns in Movima, as can be seen in Table 63.

**Table 203.** Verbal gender markers in Dido.

	Sg	Pl
Male rationals	$\emptyset$	<i>b-</i>
Female rationals and some inanimates	<i>y-</i>	
Non rational animates and several inanimates	<i>b-</i>	<i>r-</i>
Inanimates	<i>r-</i>	

The gender markers of Ju|'hoan, a language spoken in Namibia and Botswana, also constitute an exception. This language has five different genders if we consider both the singular and plural forms in the pronominal system (Baerman, Brown, & Corbett 2005: 89-90). Gender I is for humans, II for animals and (non Ju|'hoan) nations and ethnicities, gender III denotes (most) plants and foodstuffs, IV contains some inanimates (maybe long objects, but it is difficult to be characterized), and the last one, gender V, is heterogeneous and includes deverbal nouns, clauses, body parts, and so on. In Table 204 we can observe that only the syncretisms in the singular between genders I, II, and III allow making a distinction among animates (and growing plants) versus inanimates. It is not that clear in the plural as, apart from having more gender distinctions, which goes against Greenberg's Universal number 45 (Greenberg 1963: 76), there is a surprising syncretism between genders II and IV.

**Table 204.** Pronouns in Ju|'hoan.

	Sg	Pl
I		<i>sila</i>
II	<i>ha</i>	<i>hì</i>
III		<i>ha</i>
IV	<i>hì</i>	<i>hì</i>
V	<i>ka</i>	<i>ka</i>

It is worth adding another interesting analysis of these data collected by Baerman, Brown, & Corbett (2005: 89-90) which gives to morphemes *hì* and *ha* different functions depending on animacy. It is, so far as I know, the only example in which animacy operates as a condition for the encoding of a feature by opposition to other. According to the au-

thors, for inanimate entities (genders III and IV), these morphemes mark gender but not number: *ba* for plants and *bi* for long objects. For animate ones (genders I and II), conversely, they mark number but not gender: *ba* is singular and *bi* plural. Nothing is stated in the source about *sila*.

In terms of optionality, the exception in Swahili is interesting. As in other Bantu languages, animate entities may make the verbal agreement in the canonical human gender 1/2, even if they belong to other genders. However, with nonhuman animates in gender 9/10, syntactic agreement is possible only in the plural, although semantic agreement is preferred. This, then, constitutes an exception, as in the singular semantic agreement in gender 1 is compulsory, but in the plural both syntactic agreement (in gender 10) and semantic one (in gender 2) are possible (Corbett 1991: 253).

There are some cases in which the exception to the rule of animacy distinction being more straightforward in the plural than in the singular is not that clear. The paradigm of possessive pronouns in Larike-Wakasihu, in Table 205, is an example. Animacy is distinguished in the plural, but also in the singular, whereas in the dual and trial no distinction is made (Laidig 1993: 320).

**Table 205.** Possessive pronouns in Larike-Wakasihu.

		Singular	Dual	Trial	Plural
1	Exclusive	<i>aku-</i>	<i>aruar-</i>	<i>aridur-</i>	<i>amir-</i>
	Inclusive	-	<i>ituar-</i>	<i>itidur-</i>	<i>iter-</i>
2		<i>amu-</i>	<i>iruar-</i>	<i>iridur-</i>	<i>imir-</i>
3	Human	<i>mana-</i>	<i>matuar-</i>	<i>matidur-</i>	<i>matir-</i>
	Nonhuman	<i>ir-</i>	-	-	<i>irir-</i>

In Lealao Chinantec, there is a possessive bound pronoun system agreeing in number and person with the possessor, and in gender (animate/inanimate) with the possessed, as shown in Table 206 (Rupp 2009: 7). At first sight it seems that the paradigm constitutes an exception since gender is neutralized in the plural (shaded). However, we must keep in mind that animacy agreement with the possessed NP is not precisely related to its plurality, but to the plurality of the possessor. Consequently, this is not an exception in the same sense as those provided before.

**Table 206.** Bound pronouns in Lealao Chinantec.

		1		2	
		Pl			
		Sg		Sg	Pl
		Inclusive	Exclusive		
Inanimate	<i>y</i>	<i>a<sup>2</sup></i>	<i>ab<sup>1</sup></i>	<i>y</i>	<i>ab<sup>3</sup></i>
Animate	<i>a<sup>2</sup>, a<sup>4</sup></i>	<i>a<sup>2</sup></i>	<i>ab<sup>1</sup></i>	<i>u<sup>3</sup></i>	<i>ab<sup>3</sup></i>

Abkhaz pronouns constitute an exception, only if we consider the gender agreement patterns separately: otherwise, the plural seems to mark animacy more clearly (Hewitt 1979: 101-103). The point is that in this language pronouns have three different gender agreement patterns, depending on the syntactic function of the pronoun. The first pattern, that employed with intransitive subjects and objects, is a clear exception since a human/nonhuman split is only shown in the singular. However, patterns 2 and 3, employed respectively for possessors/indirect objects and agents, have a clearer animacy distinction, since they have a masculine/feminine/nonhuman pattern in the singular, and neutralize the sex distinction in the plural (cf. Table 79, Table 80 and Table 81).

Finally, the last example that goes only partially against the rule that states that animacy-based gender distinction is clearer in the plural than in the singular is the Caucasian language Chechen. This language has four different gender agreement markers, as can be seen in Table 207 (Nichols 1992: 126). The syncretisms among genders are interesting. Leaving number syncretisms in each gender aside for my purpose now, and paying attention to gender distinction based on pure animacy, the singular seems more chaotic than the plural, because the gender marker *j-* is employed both for human feminine entities and animate entities, whereas *v-* is employed with human masculine entities. In summary, in the singular a masculine (*v-*)/animate (*j-*)/inanimate (*d-*) distinction can be traced. The plural paradigm looks initially clearer from the point of view of animacy, as all the human entities have *b-* as a plural agreement marker, but this rule fades with entities like *bart* ‘agreement’, which take the same *b-* marker. Noting that *v-* is the only pure human gender marker and that *d-* is the only pure inanimate one, a diachronic hypothesis can be proposed. As *j-* is the animate marker and *d-* the inanimate one, a further sex-based distinction was created by means of masculine *v-*. Furthermore, *b-* seems related to less individuated intangible entities, spread later to non-individuated plural entities.



**Table 207.** Gender markers in Chechen.

Example	Gloss	Agreement markers	Gender	Macrogender	
<i>vaša</i>	‘brother’	<i>v-</i>	Masculine	Human	
<i>vežari:</i>	‘brothers’	<i>b-</i>			
<i>jiša</i>	‘sister’	<i>j-</i>	Feminine		
<i>jižari:</i>	‘sisters’	<i>b-</i>			
<i>hiexarxuo</i>	‘teacher’	<i>v-/j-</i>	Masculine or feminine		
<i>hiexarxuoj</i>	‘teachers’	<i>b-</i>			
<i>bworɣ</i>	‘wolf’	<i>j-</i>	j		
<i>byežaloj</i>	‘wolves’	<i>j-</i>			
<i>bart</i>	‘agreement’	<i>b-</i>	b		Nonhuman
<i>bertaš</i>	‘agreements’	<i>b-</i>			
<i>surt</i>	‘picture’	<i>d-</i>	d		
<i>sürtaš</i>	‘pictures’	<i>d-</i>			

### 1.3.2. *Person values*

Talking about animacy splits restricted to a person value seems absurd, since in theory, splits must be unavoidably restricted to the third person, as long as first and second persons are always animate. However, we can find examples of animacy being dependent on person values other than the third one, when the controller of this person value and that of the animacy value are not the same entity.

In the example in Table 208, from possessive pronouns in Usila Chinantec, used for non-obligatory possession, the person of the possessor affects the animacy of the possessed, since the possessed shows an animacy split only when the possessor is 3rd person, or 1st person (singular) (Skinner & Skinner 2000: 490).

**Table 208.** Possessive determiners/pronouns in Usila Chinantec.

	1 Sg	1 Pl Inclusive	1 Pl Exclusive	2	3
Inanimate	<i>quien</i> <sup>4</sup>	<i>quian</i> <sup>4</sup> , <i>quian</i> <sup>43-1</sup>	<i>quian</i> <sup>4</sup>	<i>quianh</i> <sup>3</sup>	<i>quieh</i> <sup>1</sup>
Animate	<i>quian</i> <sup>34</sup>	<i>quian</i> <sup>4</sup> , <i>quian</i> <sup>43-1</sup>	<i>quian</i> <sup>4</sup>	<i>quianh</i> <sup>3</sup>	<i>quian</i> <sup>1</sup>

### 1.3.3. Gender values

In some languages, animacy splits can only be found under a certain gender value. In these, animacy is, actually, a subgender (Corbett 1991: 163), depending on a bigger gender distinction. If we have a look at the paradigm in Table 209, on the past tense of the verb *być* ‘to be’ in Polish (Corbett 1991: 284; 2006: 251), we can see that in the plural, a personal/nonpersonal split is restricted to the masculine gender. This is also true for other Slavic languages such as Slovene, Serbo-Croatian, and Colloquial Czech.

**Table 209.** Past tense of the verb *być* ‘to be’ in Polish.

	Sg	Pl
Masculine Personal		<i>był-i</i>
	<i>był</i>	
Non-personal		
Feminine	<i>był-a</i>	<i>był-y</i>
Neuter	<i>był-o</i>	

### 1.3.4. Tense values

Bashir (2003: 828) shows that in the third person of the verb ‘to be’ in Southern Pashai, there is an animacy split, as shown in Table 210. However, he states that the animacy split is restricted to the present tense.

**Table 210.** Present of the auxiliary verb ‘to be’ in Southern Pashai.

Person	Sg	Pl
1	<i>āem</i>	<i>āis</i>
2	<i>āī</i>	<i>āī</i>
3 Animate	<i>ās</i>	<i>ā(e)n</i>
3 Inanimate	<i>š{ī/ē}</i>	<i>šen</i>

### 1.3.5. *Affectedness values*

There is one example in the bound pronouns in Abui, in which the animate/inanimate gender split is restricted to objects that are not affected, i.e. those that do not trigger a change of state. Table 211 shows the split (Klamer & Kratochvíl 2006: 63-4).

**Table 211.** Singular bound pronouns for animate and inanimate objects in Abui.

Affected	Unaffected	
	Animate	Inanimate
<i>ha-</i>	<i>ho-</i>	<i>be-</i>

### 1.3.6. *Specificity values*

Often animacy splits are restricted to specific entities, leaving unspecific ones unchanged in regards to animacy. As shown in Table 212 (Russell *et al.* 2012: 57-58), in the articles of Blackfoot animacy is overridden by specificity.

**Table 212.** Articles in Blackfoot.

Specific	Animate	Sg	Proximate	<i>-wa</i>
			Obviative	<i>-yi</i>
		Pl		<i>-iksi</i>
	Inanimate	Sg		<i>-yi</i>
Pl			<i>-istsi</i>	
Unspecific				<i>-i</i>

### 1.3.7. *Distance values*

In the demonstrative determiners of Torwali, an Indo-Aryan language, there are three degrees of proximity: proximal, distal, and remote. Only the last one, which is employed when there is no visual contact with the entity, has an animacy split. Table 213 shows the split (Bashir 2003: 866).

**Table 213.** Singular demonstrative determiners in Torwali.

Proximal	Distal	Remote	
		Animate	Inanimate
<i>æ</i>	<i>pʷe, paɪyē, pāe</i>	<i>se</i>	<i>te</i>

Note, by looking at Table 214, that demonstratives in Usila Chinantec constrain the animacy split also to the absent third degree; that is to say, to the degree in which the entity is not visible (Skinner & Skinner 2000: 480).

**Table 214.** Demonstrative determiners in Usila Chinantec.

Degree	Form
1	<i>la<sup>3</sup></i>
2	<i>ne<sup>3</sup></i>
3 present	<i>jno<sup>3</sup></i>
3 absent	Animate <i>hain<sup>4</sup></i>
	Inanimate <i>jon<sup>3</sup></i>

### 1.3.8. *Existence values*

There is one example from Sentani, in which the animacy split in a negativizer depends on whether the controller entity really exists or not (Hartzler 1994: 60-63). The forms have been summarized in Table 215, and the examples are given in (289) (Hartzler 1994: 60-61). Recall that in this case animacy is present in both values, the existent one and the nonexistent one, but the split is different: there is a human/nonhuman split among the existent entities, and an animate/inanimate among the nonexistent ones. If we look at examples, both including human entities, we can see that in the first one *olo* is used since it makes

reference to a human being that exists, although it is not present at that moment. In the other example, *ban* is used in reference to humans that actually do not exist.

**Table 215.** Negativizer adverb in Sentani.

	Existent	Non-existent
Human	<i>olo</i>	<i>ban</i>
Animate	<i>an</i>	<i>ban</i>
Inanimate	<i>an</i>	<i>u</i>

Sentani. Papuan.

- (289) a. Eli imæ-na? Olo.  
 Eli house-his no.HUM  
 'Is Eli at home? No, he's not.'
- b. weyæ fa bele? Fa ban.  
 you child with child none  
 'Do you have any children? No, I don't.'

## 2. NUMBER

The feature of number can be conditioned by animacy in several ways, and examples can be found all over the world. To cite just some of them as an introduction, in the system reconstructed for Proto-Uto-Aztecan only humans and animates show plural marking, whereas inanimates do not (Corbett 2000: 77-78). Far from the Aztecan area, in Australia, languages such as Rembarunga distinguish number only with human entities (Mallinson & Blake 1981: 88). In other cases there is some optionality, as in Tamil, in which human entities must be overtly marked with the plural, whereas nonhumans (and babies) show optionality (Corbett 2000: 60-61). This also characterizes Wappo, an extinct language from North America (Blake 2004 [1994]: 139). In Tariana plural distinction takes place primarily with humans and animates (Epps 2008: 207). This is also common in Tucanoan languages, which may have influenced Tariana.

Often, overt number marking is reduced to the affixation of a morpheme that usually marks the plural, against a bare singular form, but there are other systems that employ alternation, or even systems in which animates and inanimates use different techniques for

number marking,<sup>133</sup> or cases in which animacy has to do with optionality in overt number marking, or with the amount of number values distinguished, as we will see.

Moreover, number is a feature that often appears cumulated with person and other features. However, unless the latter, it can be marked either in the controller, or in a target such as an adjective or a verb, or in both, and sometimes it is animacy that determines where number must be marked.

In this section I will study more deeply all these phenomena described above. First of all I will show examples in which animacy operates as a condition for overt number marking in the controller NP (§ 2.1),<sup>134</sup> in contrast to those cases in which number is a matter of agreement in many different targets (§ 2.2). Obviously, in several languages number may appear both in the controller and in different targets, but I have not found but an example in which the same morpheme is employed to encode plural number in the controller and in different targets such as noun modifiers or verbal morphology. It is the case of Slave and the morpheme *ke* (Corbett 2000: 57-58). I have devoted another section to optionality (§ 2.3), which includes examples in which animacy conditions the feature of number, but in which there is some kind of variation at a point of the Animacy Hierarchy, which decreases in an opposed way, as far as we go up or down in the hierarchy. In section § 2.4 I show that animacy may affect differently the feature of number in the controller or in the targets, within a language. Section § 2.5 contains cases in which number is always overtly marked, but the number-values distinguished vary depending on animacy. Besides, number can be marked by means of an inverse marker that can be either singular or plural, depending on the animacy of the controller as will be addressed in § 2.6. Section § 2.7 includes some cases in which animacy conditions which NP in a sentence may be the controller of number agreement. In section § 2.8 I study some interesting cases in which the same form may

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<sup>133</sup> In Southern Payute Ute, too, there are different morphological techniques for plural marking depending on the animacy of the controller. Animates use a suffix, and inanimates show reduplication (Nichols 1992: 145). However, employing different techniques does not affect either the feature of number or the element in which it is marked, since the number value remains unchanged and is still marked in the same target, irrespective of the employed morphological technique. Thus, these phenomena have not been studied here, but in chapter § III.

<sup>134</sup> Smith-Stark (1974: 657) distinguishes four types of number marking. That which takes place just in the controller noun, that which marks the whole NP, agreement in the modifiers of a noun, and verbal agreement. In this dissertation I have made a different distinction: marking in the controller, and agreement in different targets, including both verbal morphology and nominal modifiers.

have a different number value (or no number) depending on the gender it also agrees with. Finally, in § 2.9 I will discuss some examples that seem to be partial exceptions to the widespread rule that says that the more animate an entity is, the more it will show and develop the feature of number.

## 2.1. Overt number marking in the controller

As pointed out above, number is a feature that can be overtly marked in the controller itself. However, as shown in section § 2.1.1, there are different types of agreement controllers that may be overtly marked that, moreover, do not behave in the same way in this regard. Apart from that, overt number marking on the controller may depend just on animacy (§ 2.1.2), or may imply more conditions (§ 2.1.3).

### 2.1.1. Types of controllers

First of all, it should be noted that NPs, which are canonically agreement controllers, may belong to different categories such as common nouns, proper nouns, or pronouns. Furthermore, it is typologically quite common that inanimate controllers do not distinguish number, whereas animates do. Several examples of common nouns showing this split will be addressed, among other sections, in § 2.1.2. Among pronouns, just to cite some examples, in Central Pomo, personal pronouns distinguish singular and plural only when they denote animate entities (Corbett 2000: 63, 105, 280), as happens in Kannada (cf. Table 216) with 3rd person remote pronouns (Ortmann 1998: 66), or even in Zande, in Table 217, which has an additional gender for nonhuman animates (Corbett 1991: 194-195).

**Table 216.** 3rd person remote pronouns in Kannada.

	Human		Nonhuman
	Masculine	Feminine	Neuter
Sg	<i>avanu</i>	<i>avaLu</i>	
Pl	<i>avaru</i>	<i>avaru</i>	<i>avu</i>

**Table 217.** 3rd person personal pronouns in Zande.

	Sg	Pl	
Masculine	<i>ko</i>	<i>i</i>	Human
Feminine	<i>ri</i>		
Animate	<i>u</i>	<i>ami</i>	Animate
Neuter		<i>si</i>	Inanimate

But what it is especially interesting is that, among these number agreement controllers, there can be differences concerning overt number marking. In Chukchi, for instance, pronouns, proper nouns, and kin terms mark number compulsorily, whereas common nouns have some optionality (Comrie 1989 [1981]: 189-190). In Japanese, pronouns always show overt marking, proper nouns require it when they denote human entities, and human common nouns mark number optionally (Corbett 2000: 74). Number specification in Fijian (Corbett 2000: 23, 93) and in Muna (Corbett 2012: 92-93) is compulsory in pronouns denoting humans, and optional otherwise. These examples, in which optionality is involved, have been extensively explained in § 2.3.

### 2.1.2. *Purely animacy-governed overt number marking*

There are several cases that show how animacy conditions overt number marking in the controller itself. As we will see in § 2.1.2.1, from language to language, the cut-off point for overt marking may vary along the Animacy Hierarchy. Section § 2.1.2.2 includes some examples in which, as in the preceding section, overt number marking depends on animacy, but other factors are worth highlighting as well.

#### 2.1.2.1. Different cut-off points in the Animacy Hierarchy

Crosslinguistically a human > animate > inanimate hierarchy for overt number marking in the controller can be traced, as I will show in the following examples.

In Eastern Pomo, a Pomoan language from California (Nichols 1992: 133, 145), in the likewise Californian language Karok (Nichols 1992: 133, 145), in the Canadian language Gitksan (Nichols 1992: 133, 145), in the Mayan K'iche' (Croft 1990: 112), and Hatam (Haspelmath 2013), for instance, overt plural marking in the NP is restricted to human entities, leaving animate and inanimate entities unmarked. East Makian, in Indonesia, behaves the same way, as can be seen in example (290) (Haspelmath 2013).



East Makian. Austronesian

- (290) a. manik  
 chicken  
 ‘chicken(s)’
- b. llu  
 leaf  
 ‘leaf/leaves’
- c. wang  
 child  
 ‘child’
- c’. wang=si  
 child=PL  
 ‘children’

There are cases in which overt plural marking reaches not only humans, but also higher animates. For instance, Tiwi, an Australian language, encodes the plural overtly in pronouns and common nouns that denote humans and higher animals (‘dog’, ‘dingo’, and ‘goanna’) (Haspelmath 2013).

In a vast amount of languages, overt plural marking reaches all the human and animate entities. This happens in the Uto-Aztecan language Cora (Nichols 1992: 145) and, among others, in the Austro-Asiatic languages Korcu (Haspelmath 2013) and Kharia in (291) (Croft 1990: 112). Corbett (2000: 267), citing Liclan and Marlett, states that the non-singular number marker *deni* of Kulina can only be attached to proper nouns and human-denoting nouns, but Dienst (2014: 52) gives the example in (292) to support the fact that, as in the previous examples, it can also be used with animate nouns. In Mandarin Chinese, the plural/collective marker *-men* is attached to animate entities, as can be seen in example (293), but in this case, definiteness overrides animacy, since indefinite animates do not take the number marker (Niu 2015).

Kharia. Austro-Asiatic.

- (291) a. soreŋ  
 stone  
 ‘stone(s)’

b. biloi

cat

‘cat’

b'. biloi-ki

cat-PL

‘cats’

Kulina. Arauan.

- (292) ethe deni “háo háo” Ø-ke-na-de  
 dog NSG “bow wow” 3-NSG-say-PST  
 ‘The dogs were barking.’

Chinese, Mandarin. Sino-Tibetan.

- (293) wo qu zhao haizi-men  
 I go find child-PL  
 ‘I will go and find the children.’

Finally, Washo provides an example in which overt plural marking in the NP takes place with humans and animates, but reaches also some inanimate elements such as body parts and articles of clothing (Nichols 1992: 133-145). Plural marking is optional, and used to emphasize plurality, except for kin terms, in which the meaning is just that of ‘plural’.

#### 2.1.2.2. Special cases

This section includes some cases in which number marking in the controller NP depends on animacy, as in the previous section, but having some special elements that are worth mentioning.

In Southern Tiwa, apart from overt marking, there is a change in the morphosyntactic structure, related to incorporation. In this language, the singular is also overtly marked in the controller: *-de/-ide* is the singular morpheme, and *-nin/-mnin/-n* is employed in the plural. Only animate direct objects can take these morphemes, since when these NPs are inanimate, they must be incorporated in the verb, in which there is no number marking (cf. Figure 40 in § IV.6.3) (Allen, Gardiner, & Frantz 1984: 294, footnote 6).

Consider now example (294) from Akan (Osam 1993/1996: 155). Akan has a classifier system partially based on animacy (cf. § 1.1.1.4). These classifiers also mark number, as alternative forms are used in the singular and the plural. However, the system is in decay, as

some nouns no longer take any classifier in the singular and keep it only in the plural, like that in example (294). The reason for that may be that the classifier also operates as a number marker, thus being more functional in the plural. However, some nouns have lost the classifier in the plural as well, not making any number distinction (cf. (295)). Following Osam (1993/1996: 155), inanimate nouns tend to lose the classifier more than animate ones, so number is more likely overtly marked with animate nouns. This case has been included among the special ones because it is debatable whether it is the controller that is (or not) number-marked, as in all the examples in section § 2.1, or it is the classifier, a target, that is the element that takes number marking, like those cases studied in § 2.2. I believe that this case should be kept in section § 2.1 since there is some evidence that supports the idea that these classifiers are definitely losing their function. There are robust data that demonstrate that plural marking is being increasingly directly attached to the controller in a pleonastic way (Osam 1993/1996: 155-156), (cf. (296)).

Akan. Niger-Congo.

(294) a. prako

pig

‘pig’

b. m-prako

CLASS.PL-pig

‘pigs’

(295) kuntu

blanket

‘blanket/blankets’

(296) a. o-panyin

CLASS.SG.elder

‘elder’

b. m-panyin-fo

CLASS.PL-elder-PL

‘elders’

The case of plural markers in the Gudandji dialect of Wambaya, in Australia, is special because of the double action of animacy, both as a semantic feature (AnimF) and as a condition (AnimC). As can be seen in Table 218, only animate nouns take an overt plural

marker. Moreover, these plural markers have an animacy-based semantic distinction between humans and nonhumans (Smith-Stark 1974: 659-660).

**Table 218.** Plural markers in the Gudandji dialect of Wambaya.

Animate		Inanimate
Human	Nonhuman	
<i>-man</i>	<i>-ma</i>	∅

### 2.1.3. Overt number marking with further conditions

There are some special cases in which overt number marking in the controller has some conditions or restrictions. In Bengali, only animate nouns (and pronouns) inflect for number apart from case (Dasgupta 2003: 365-367), as in many other languages. However, this plural marking is optional in enumerations and it is not employed when a plural number or quantifier modifies the noun, as can be inferred by comparing the examples in (297).

Bengali. Indo-European.

- (297) a. *mohilā*  
 woman  
 ‘woman’
- b. *mohilā-rā*  
 woman-PL  
 ‘women’
- c. *tin-jon*      *mohilā*  
 three-CLASS    woman  
 ‘three women’

The restriction for overt plural marking in Kâte, a Trans-New Guinean language, has to do with possession. Overt plural marking is restricted to human entities, like many other languages, but moreover these human nouns can only be overtly plural-marked when they are possessed, as shown by comparing examples in (298) (Haspelmath 2013).

Kâte. Trans-New Guinean.

(298) a. motec

boy

‘boy(s)’

b. motec-fâc-ticne

boy-PL-2.SG.POSS

‘his boys’

In the next example, obviation restricts number marking, together with animacy (Wolfart & Carroll 1981 [1973]: 20 ff., 37-39). In Plains Cree, animate entities do not have any number distinction in the obviative, since both the singular and the plural are syncretic (cf. Table 219). It is interesting that, apart from number marking in the obviative, animacy also controls the obviation system itself, as inanimates do not make such a distinction (cf. § 3.5.1). Recall that this *-a*, from Table 219, can mark plurality, obviation, or both.

**Table 219.** Proximate/Obviative distinction in Plains Cree.

	Animate		Inanimate	
	‘duck’		‘berry’	
	Sg	Pl	Sg	Pl
Proximate	<i>s̄i.s̄ip</i>	<i>s̄i.s̄ip-ak</i>	<i>m̄nis</i>	<i>m̄nis-a</i>
Obviative	<i>s̄i.s̄ip-a</i>	<i>s̄i.s̄ip-a</i>	<i>m̄nis</i>	<i>m̄nis-a</i>

## 2.2. Overt number agreement in the target

Number is a feature that can be marked in elements other than the controller NP, such as bound pronouns, adjectives, demonstratives, numerals, and so on. That is the case of Mundari, for instance, in which verbs and demonstratives distinguish three number values (singular, dual, and plural) only when their controller is an animate entity (Corbett 1991: 31). I will provide just a few examples of each category.

### 2.2.1. (*Bound*) pronouns

Bound pronouns in Akan make an animacy distinction in the 3rd person. These bound pronouns appear when the controller NP is not overtly expressed in the sentence. However, as is common, especially in Asante and Akuapem dialects, and among some Fante speakers, only animate pronouns make a number distinction (Osam 1993/1996: 158-159).

The paradigm is provided in Table 231. The genetically close language Nkami has exactly the same pattern, but the form for animate plurals is *bɛ-* instead of *ɯɔ-* (Asante & Akanlig-Pare 2015: 68-69). In Abkhaz the situation is similar in the 1st set of bound pronouns (cf. Table 221), but in the plural even the animacy distinction is neutralized (Hewitt 1979: 101).

**Table 220.** 3rd person bound personal pronouns in Akan.

	Animate	Inanimate
Sg	<i>ɔ-</i>	<i>ɛ-</i>
Pl	<i>ɯɔ-</i>	<i>ɛ-</i>

**Table 221.** 3rd person bound personal pronouns in Abkhaz (1st set).

	Human	Nonhuman
Sg	<i>d(ə)-</i>	<i>j'(ə)-</i>
Pl	<i>j'(ə)-</i>	<i>j'(ə)-</i>

Dagbani has alternative forms, whose syncretisms distinguish number only with animates in some contexts, as can be seen in Table 222 (Siewierska 2004: 104).

**Table 222.** 3rd person pronouns in Dagbani.

	Animate	Inanimate
Sg	<i>o</i>	<i>di</i>
Pl	<i>bɛ</i>	<i>di/ɲa</i>

In Ancient Greek (Comrie 1989 [1981]: 190) and Georgian (Sedighi 2005: 1-2) only animate subjects induce number agreement on the verb. Plural inanimate subjects agree in the singular/default form. See (299).<sup>135</sup>

<sup>135</sup> There are exceptions in Georgian, though. When we find an inanimate subject with a verb that normally requires an animate subject, plural agreement is employed. A sentence like ‘Trees drink a lot of water’, for instance, would show a 3rd person plural verbal agreement (Iván Igartua, pers. comm.).

Georgian. Kartvelian.

(299) a. knut-eb-i            gorav-en

kitten-PL-NOM    roll-3.PL

‘The kittens are rolling.’

b. burt-eb-i            gorav-s

ball-PL-NOM    roll-3.SG

‘The balls are rolling.’

Bound pronouns in the verb of Gunwinggu show that only humans and higher animates like spirits show verbal number agreement. The pronoun *abanmani-* in (300a) reflects a 1st person acting upon a 3rd one. The 1st person is in the minimal number (MIN), i.e. in the singular, and the 3rd person, which corresponds to the human object, in the unit augmented number (UAUG), which is similar to the dual. In (300b), the bound pronoun *ba-* makes a default minimal number agreement (singular) with the object ‘dog’, even if it is semantically plural (Corbett 2000: 58). Another Gunwingguan language, Guragone, has the same number agreement pattern, restricted to humans and some animates, but in this language agreement is optional even for them (Corbett 2000: 168). The minimal form acts as a general number and, if number is specified (with humans and some animates), the suitable form must be chosen (unit augmented or augmented), following the pattern in Figure 65.

Gunwinggu. Australian.

(300) a. abanmani-na-ng                            bininj

1.MIN>3.UAUG-see-PST.PFV    man

‘I saw the two men.’

b. duruk    ginga            ba-bayeng                            ba-ngune-ng

dog    crocodile    3.MIN>3.MIN-bite.PST.PFV    3.MIN>3.MIN-eat-PST.PFV

na-wern-gen

MASC-many-GEN

‘The crocodile has eaten all the dogs/the many dogs.’

**Figure 65.** Number system in the bound pronouns of Guragone.

		Number		
		Minimal	Unit augmented	Augmented
Person	1	me	me and another	me and others
	1/2	me and you	me, you and another	me, you and others
	2	you	you and another	you and others
	3 masculine	he	he and another	he and others
	3 feminine	she	she and another	she and others

Turkish is another language with a plural vs. default/singular number agreement governed by animacy shown in bound pronouns, in the verbal morphology. In this language there is no overt plural agreement in general, and only human nouns can optionally have it.<sup>136</sup> However, unlike in the preceding examples, other factors are also important: There should be an overt subject in the same clause; if not, singular agreement can only be understood as implying a semantically singular subject. Besides, the topical status of the controller, the agentivity, syntactic distance, politeness, and individuation are also important conditions for agreement (Smith-Stark 1974: 657; Corbett 2006: 190). See an example of optionality in (301).

Turkish. Turkic.

- (301) *namzet-ler oda-ya bir-er bir-er gel-sin-ler/gel-sin*  
 Candidate-PL room-dat one-by one-by come-OPT-3.PL/come-OPT[-3.SG]  
 ‘The candidates should come into the room one by one.’

The examples of Guguyimidjir (Corbett 2012: 184) and Jamamadí (Corbett 2006: 273-274) are interesting regarding number (and person) agreement, since it takes place by means of a pronoun that is not bounded. Moreover, animacy does not condition the value of this pronoun (semantic vs. singular/default), but its overt appearance. This pronoun does not replace the controller NP, but appears preceding or following it, when the controller is animate, so it cannot be considered a controller pronoun (like those in § 2.1.1).

<sup>136</sup> According to Ortmann (1998: 74), inanimate entities may show number agreement if they are widely separated from the verb.



Likewise in Kalam, a pronoun agreeing in number (and person) follows the direct object NP, only if it is animate (Pawley 2006: 88).

Guguyimidjir. Pama-Nyungan

- (302) **nyulu** bidha-al warrbi dumbi  
 3.SG child-ERG axe break.PST

‘The child broke the axe.’

Jamamadi. Arauan.

- (303) a. jomee tafa-ka  
 dog eat-DECL.MASC

‘The dog is eating.’

- b. jomee **mee** tafa-ke  
 dog 3.PL eat-DECL.FEM

‘The dogs are eating.’

### 2.2.2. *Determiners*

In Naasioi, a South Bougainville language, only human nouns can take plural marking (Nichols 1992: 133-145), but this marking happens on the article, and not on the noun itself.

Articles in Omaha-Ponca and other Siouan languages have different forms for animates and inanimates. Inanimates distinguish shapes and positions, and animates can be subjective and objective, can vary depending on the position/movement, and have singular and plural forms (Smith-Stark 1974: 659). Forms have been provided in Table 223 (Yamamoto & Zepeda 2004: 171).

Me’phaa. Otomanguean.

- (304) a. <sup>m</sup>bá gūmā mùhmù?  
 INDF omelette yellow

‘a yellow omelette’

- b. <sup>m</sup>báā      áhk<sup>w</sup>ááà<sup>n</sup>      mùhmù?<sup>n</sup>  
 INDF.3.SG    ant            yellow.3.PL<sup>137</sup>  
 ‘a yellow ant’

**Table 223.** Definite articles in Omaha-Ponca.

Form	Function
-k <sup>b</sup> e	Inanimate horizontal object
-l <sup>b</sup> e	Inanimate standing object
-ðq	Inanimate round object
-ak <sup>b</sup> á	Singular animate agent
-amá	Singular animate agent in motion or plural
-l <sup>b</sup> q	Animate singular patient in standing position
-ðj	Animate singular patient in motion
-ma	Animate plural patient in motion
-ðjk <sup>b</sup> é	Animate singular patient in sitting position
-ðqk <sup>b</sup> é	Animate plural patient in sitting position

Me’phaa shows number (and person) agreement in the indefinite determiner, only when it makes reference to an animate entity (Marlett 2012: 4).

In Hupdë, demonstratives take the plural marker *-d’əb* when they modify an animate noun (Epps 2008: 199). They only appear with inanimates if the noun itself is also marked with the plural, which is very unusual (cf. § 2.3). Demonstratives with inanimate controllers use a nominalizer instead of the plural marker.

### 2.2.3. *Nouns and Noun Phrases*

NPs may also take elements that agree in number, depending on the animacy of a controller. I will provide just one example.

<sup>137</sup> This seems to be a mistake from the data source, since singular agreement is expected.

In inalienable possessive constructions in Moskona, a language spoken in Papua, number agreement with the possessor is overtly expressed in the possessed NP only when the former is human, by means of a set of bound pronouns agreeing in person and number with the possessor, which are attached to the possessed NP.<sup>138</sup> Thus, when these prefixes are not added, that is to say, when the possessor is not human, number is not overtly expressed. Person is not affected, as nonhuman possessors are, obviously, always 3rd persons. Compare the examples in (305). In the first one, the possessor is a human being, and in the second, an animal. Moreover, notice in (305a) that these prefixes are also attached to nouns denoting humans (like *i-osnok*) to indicate the person and number of the referent.<sup>139</sup>

Moskona. East Bird's Head-Sentani.

- (305) a. *i-osnok*            **i-ebirorha**  
           3.PL-person    3.PL-skull  
           ‘people’s skulls’
- b. *mes owoka Masur dokun Masik*  
     dog name sandfly and mosquito  
     ‘The dog’s names were Sandfly and Mosquito.’

#### 2.2.4. *Adjectives*

Among adjectives, we find that in Georgian, for example, predicative adjectives agree in number only if they refer to humans (Ortmann 1998: 79). In the Otomanguean language Me’phaa many categories show overt number agreement only when their controller is animate. In example (306), for instance, number (and person) is overtly marked in the adjective with the animate controller (Marlett 2012: 4).

Me’phaa. Otomanguean.

- (306) a. <sup>m</sup>bá        gūmā    mūhmù?  
           INDF omelette    yellow  
           ‘a yellow omelette’

<sup>138</sup> See the forms of these bound pronouns in Table 108, on page 200.

<sup>139</sup> These prefixes have functions other than agreeing with the possessor: They index subjects and agents in verbs, and they appear in verbal adjectives, quantifiers, and verbal specifiers within the NP.

- b. <sup>m</sup>báā      áhk<sup>w</sup>ááà<sup>n</sup>      mùhmù?<sup>n</sup>  
 INDF.3.SG   ant      yellow.3.PL<sup>140</sup>  
 ‘a yellow ant’

### 2.2.5. Numerals

In Hupdë (Epps 2008: 199-200), numerals other than ‘one’ take the plural marker when they depend on an animate entity, and the entity is not mentioned, as in example (307). When denoting an inanimate entity, they usually take a classifier, and when the numeral is adnominal, may take the plural marker. Moreover, the plural marker can appear with the numeral ‘one’ for a collective reading, but only with animates (Epps 2008: 200-201), as in (308).

Hupdë. Puinavean.

- (307) tedé=**d’əh**-át    tih    biʔ-ni-cíp-íh  
 three=PL-OBL 3.SG work-be-COMPL-DECL  
 ‘He’s already worked with three of them.’

- (308) a. ʔayǔp    (hup)    yöy=**d’əh**  
 one    person    line=PL  
 ‘a line of people’

- b. ʔayǔp    mú(\*=d’əh)    ów-óh  
 one    mound(\*=PL) hot.pepper-DECL  
 ‘one pile of hot peppers’

### 2.2.6. Verbs

In Huichol number is not distinguished on the verb for inanimates, whereas animates have a singular/plural distinction (Corbett 2000: 255). However, some verbs have verbal number: if the main participant of the verb is plural (even if inanimate), a plural verbal form must be used. Similarly, in Ngalakan, nouns that are not overtly marked for number can agree in the verb if they denote humans (and sometimes also animates). If they are inanimate NPs, there is no verbal agreement and number must be understood from the context (Corbett 2000: 71).

<sup>140</sup> This seems to be a mistake from the data source, since singular agreement is expected.

Overt number agreement may also be present in bound pronouns, which are overtly realized in the verb only when their controller is human or animate, as shown in an example from the Hua dialect of Yagaria (cf. (309)), in which the object agrees in the verb by means of bound pronouns,<sup>141</sup> only when the object is human. Otherwise, no marking is used (Siewierska 2004: 154-155). In Nkami the 3rd person plural animate bound pronoun *bɛ*- can be optionally attached to the verb, even if the plural controller NP is overtly expressed in the sentence. With inanimate controllers this is never possible, so number cannot be overtly marked (Asante & Akanlig-Pare 2015: 69). Compare (310a) and (310b).

Yagaria. Trans-New Guinean.

- (309) a. vedemo p-go-e  
           men      2/3.PL-see-1.SG  
           ‘I saw the men.’
- b. mna-vrza-mo      ko-e/\*p-go-e  
      bird-COLL-PL    see-1.SG/\*2/3.PL-see-1.SG  
      ‘I saw the birds.’

Nkami. Niger-Congo.

- (310) a. anansi    bebiree   **(bɛ)**mɪna                            obu    amu   yo  
           spider   many   (3.PL.ANIM-)stick/be.fixed building DET self  
           ‘There are many spiders on the wall.’
- b. ntɪntai   bebiree   \***bɛ**-mɪna                            obu    amu   yo  
           cobweb many   3.PL.ANIM-stick/be.fixed building DET self  
           ‘There are many cobwebs on the wall.’

Me’phaa, in (311), follows the already mentioned pattern in which only animate objects trigger number (and person) agreement in the verb (Marlett 2012: 7). A paradigm is provided in Table 224 (Marlett 2012: 9). However, some verbs, such as that in Table 225 (Marlett 2012: 10), show an interesting behavior, since they still keep a number distinction for animates, but only the plural is encoded, because the animate singular is syncretic with

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<sup>141</sup> Pronouns are usually considered agreement controllers, and not targets. However, bound pronouns behave in a different way, since they do not replace the controller NP and thus, agree with it. Consequently, here they have been treated as agreement targets.

inanimates, which do not distinguish number. Thus, number marking is restricted to animate plurals for these verbs.

Me'phaa. Otomanguean.

- (311) a. gúʔdóō            <sup>m</sup>bóō      tʃídí  
 EST.have.1.SG    one            machete  
 'I have a machete.'
- b. gúʔdóō            àhmà      tʃídí  
 EST.have.1.SG    two            machete  
 'I have two machetes.'
- a'. gúʔdáā                                    <sup>m</sup>báā      ʃuwááʔ<sup>n</sup>  
 EST.have.1.SG>**3.SG**    one            dog  
 'I have a dog.'
- b'. gúʔdí<sup>n</sup>                                    ahmii<sup>n</sup>      ʃuwááʔ<sup>n</sup>  
 EST.have.1.SG>**3.PL**    two            dogs  
 'I have two dogs.'

Table 224. Paradigm of the verb 'to eat' in Me'phaa.

		Object			
		Inanimate		Animate	
		Sg	Pl	Sg	PL
Sg	1	<i>niku</i>	<i>niku</i>	<i>nikuu</i>	<i>nikúún</i>
	2	<i>nisu</i>	<i>nisu</i>	<i>nisú</i>	<i>nisúún</i>
	3	<i>ni'k<u>u</u></i>	<i>ni'k<u>u</u></i>	<i>ni'k<u>uu</u></i>	<i>ni'k<u>uun</u></i>
Pl	1 Inclusive	<i>nipu(lú)</i>	<i>nipu(lú)</i>	<i>nipú(lú)</i>	<i>nipúún(lú)</i>
	1 Exclusive	<i>nipú(xu)</i>	<i>nipú(xu)</i>	<i>nipúú(xu)</i>	<i>nipúún(xu)</i>
	2	<i>nipu(la)</i>	<i>nipu(la)</i>	<i>nipú(la)</i>	<i>nipúún(la)</i>
	3	<i>ni'p<u>u</u></i>	<i>ni'p<u>u</u></i>	<i>ni'p<u>ii</u></i>	<i>ni'p<u>uun</u></i>

**Table 225.** Paradigm of the verb ‘to hit’ in Me’phaa.

		Object				
		Inanimate		Animate		
		Sg	Pl	Sg	Pl	
Subject	Sg	1	<i>nijxnuu</i>	<i>nijxnuu</i>	<i>nijxnuu</i>	<i>nijxnuun</i>
		2	<i>nirajxnáá</i>	<i>nirajxnáá</i>	<i>nirajxnáá</i>	<i>nirajxnúún</i>
		3	<i>nijxnúu</i>	<i>nijxnúu</i>	<i>nijxnúu</i>	<i>nijxnúún</i>
	Pl	1 Inclusive	<i>nijxnáá(lú)</i>	<i>nijxnáá(lú)</i>	<i>nijxnáá(lú)</i>	<i>nijxnúún(lú)</i>
		1 Exclusive	<i>nijxnaaxu</i>	<i>nijxnaaxu</i>	<i>nijxnaaxu</i>	<i>nijxmuuxun</i>
		2	<i>nijxnaa(la)</i>	<i>nijxnaa(la)</i>	<i>nijxnaa(la)</i>	<i>nijxmuun(la)</i>
		3	<i>nijxnáá</i>	<i>nijxnáá</i>	<i>nijxnáá</i>	<i>nijxúún</i>

In Georgian (Smith-Stark 1974: 657) the animate plural subject triggers verbal plural agreement, since inanimate subjects normally do not (but cf. footnote 135). In Sonsorolese, an Austronesian language, overt number agreement is restricted both to subjects and objects, provided they are humans (Smith-Stark 1974: 658), and in Tlingit, a clitic pronoun *bas#* is attached to a transitive verb among others, to mark the plural of either the subject, the object, or both, provided they are 3rd person pronouns, and humans (Corbett 2000: 135-136).

The case of Plains Cree is slightly different. As in other languages, only the animate direct object triggers verbal number agreement (and direct/inverse marking when necessary). Inanimate objects do not have any verbal agreement, since they do not trigger transitive verbal morphology, leaving the verb as in intransitive sentences. Thus, it could be stated that, in this case, animacy conditions overt number marking by conditioning at the same time the transitivity of the verb (Wolfart & Carroll 1981 [1973]: 67 ff.). Note in examples in (312a) and (312a’) how the animate object triggers overt number marking on the verb, but compare then (312b) and (312c) and notice how the verb does not change and does not include the direct/inverse marker, necessary in transitive verbs.

Cree, Plains. Algic.

(312) a. ni-wap-am-aw-ak

1-see-ANIM-DIR-PL

‘I see them.’

a’. ni-wap-am-aw

1-see-ANIM-DIR

‘I see him.’

b. niso waskahikan-a ni-wap-aht-en

two house-PL 1-see-INAN-N3RD

‘I see two houses.’

c. peyak waskahikan ni-wap-aht-en

two house 1-see-INAN-N3RD

‘I see one house.’

Overt marking may be dependent on further features such as definiteness. In Romanian, specific human objects, apart from being preceded by a preposition *pe*, also trigger number (and person and gender) verbal agreement through a pronoun, as can be seen in (313) (Mallinson & Blake 1981: 200; Siewierska 2004: 155, 158). In Palauan, in (314), we find the same situation. Number (and person) agreement on the verb is restricted to human specific objects (Ortmann 1998: 71). Nonhuman objects do not show agreement, except when they have specific singular reference, so animacy seems to be overridden by specificity in this language.

Romanian. Indo-European.

(313) o caut pe o secreteră

3.SG.FEM look.for.1.SG ACC/DAT a secretary(FEM)

‘I look for a secretary.’

Palauan. Austronesian.

(314) a. te-’illebed a bilis a rengalek

3.SUBJ-PFV.hit dog children

‘The kids hit a dog/the dog/some dog(s).’



- b. mchelebede-**terir** a rengalek!  
 hit-3.PL.OBJ children  
 ‘Hit the children!’
- c. ak mils-**terir** a retede el sensei  
 I saw-3.PL.OBJ three teacher  
 ‘I saw three teachers.’

In Swahili, meanwhile, salience, presupposedness, an old vs. a new reference, and so on, are also important for overt number (person and gender) marking, by means of a bound pronoun in the verb (Seidl & Dimitriadis 1997). Its overt appearance seems to be controlled by the animacy of the object, as data in (311) show (Croft 1990: 129-130). However, Aikhenvald (2000: 33-34) states that object agreement is optional when the object is inanimate, but Croft (1990: 129-130) says that this kind of agreement is possible when the object is human, or definite nonhuman. Undoubtedly, Croft’s approach explains the data above more accurately. A deeper study based on a corpus made by Seidl & Dimitriadis (1997), nevertheless, shows that animacy as a controller is only a tendency, as there are examples of not overtly marked animate objects.

Swahili. Niger-Congo.

- (315) a. ni-li-**mw**-ona yule mtu  
 1.SG-PST-**OBJ**-see the person  
 ‘I saw the person.’
- b. ni-li-**mw**-one mto mmoja  
 1.SG-PST-**OBJ**-see person one  
 ‘I saw one person.’
- c. ni-li-ki-soma kitabu  
 1.SG-PST-**OBJ**-read book  
 ‘I read the book.’
- d. ni-li-soma kitabu  
 1.SG-PST-read book  
 ‘I read a book.’

### 2.2.7. *Gender markers and classifiers*

It is normal that gender markers for inanimate entities do not distinguish number. To provide just an example, Mohawk prefixes some gender markers on the noun. They have an animate/inanimate gender distinction together with a sex-based one for animates. Recall how number distinction is restricted to the animate form in (316) (Corbett 2000: 114-116).

Mohawk. Iroquoian.

- (316) a. **ra**-ti-ksa'-okon-'a  
 PL.MASC-child-DISTR-DIM  
 'boys'
- b. **o**-neni-a'-shon'a  
 NEUT-rock-NOUN.SUFFIX-DISTR  
 'various rocks'

### 2.2.8. *Conjunctions*

In Tuyuca, a conjunction meaning 'although' exhibits an animacy distinction that is dependent on the subject. Recall that inanimates do not distinguish number, as happens with the consecutive conjunctions in Table 227 (Barnes 1994: 333-334). See an example of the use of a concessive conjunction in (317) (Barnes 1994: 333). The example of the consecutive is in (318) (Barnes 1994: 335).

**Table 226.** Concessive conjunctions in Tuyuca.

Animate				Inanimate
Sg		Pl		
Masculine	Feminine			
<i>-paki</i>	<i>-pako</i>	<i>-pakara</i>	<i>-pakaro</i>	

Tuyuca. Tucanoan.

- (317) *yaá-ri-paki*                      *kãní-hóã-wi*  
 eat-NEG-CONC:MASC.SG    sleep-completely-EV  
 'Although he did not eat, he fell asleep.'

**Table 227.** Consecutive conjunctions in Tuyuca.

Animate				Inanimate
Sg		Pl		
Masculine	Feminine			
<i>-gĩ/-ŋĩ</i>	<i>-go/-ŋõ</i>	<i>-ra/-rã</i>	<i>-ro/-rõ</i>	

Tuyuca. Tucanoan.

- (318) *kǎĩ*                      *sĩnĩ-ŋĩ*                                      *kúa-hõã-wi*;  
 3.MASC.SG drink-CONS.MASC.SG be.angry-completely-EV  
*sĩnĩ-ŋĩ*                                      *ãũũ*                      *nĩĩ-wi*  
 drink-CONS.MASC.SG be.good be-EV  
 ‘When he drank, he became really angry; when he did not drink, he was fine.’

### 2.2.9. *Evidentials*

Tuyuca shows evidentiality through some affixed morphemes. Table 228 (Barnes 1994: 326) contains the declarative ones. The label ‘other’ includes 1st and 2nd person singular/plural, and inanimates. Concerning animacy, there is an animate/inanimate distinction in the 3rd person. It is striking that inanimates are syncretic in 1st and 2nd persons, which are canonically animate. Number distinction (and thus sex distinction as well) is neutralized among 3rd person inanimates, but also among 1st and 2nd referents. See an example in (319) (Barnes 1984: 257-258).

Tuyuca. Tucanoan.

- (319) a. *apé-wi*  
 play-EV:VIS.PST.OTHER  
 ‘We/you(sg/pl)/it played.’
- b. *díga*      *apé-wi*  
 soccer      play-EV:VIS.PST.3.SG.MASC  
 ‘He played soccer.’

**Table 228.** Declarative evidentials in Tuyuca.

		Visual	Non-visual	Apparent	Second-hand	Assumed
Past	other	<i>-ni</i>	<i>-ti</i>	<i>-yu</i>	<i>-yiro</i>	<i>-h̃iyu</i>
	3.MASC.SG	<i>-wi</i>	<i>-ti</i>	<i>-yi</i>	<i>-yig̃i</i>	<i>-h̃iyi</i>
	3.FEM.SG	<i>-no</i>	<i>-to</i>	<i>-yo</i>	<i>-yigo</i>	<i>-h̃iyō</i>
	3.PL	<i>-wa</i>	<i>-ta</i>	<i>-ya</i>	<i>-yira</i>	<i>-h̃iya</i>
Present	other	<i>-a/-ã</i>	<i>-ga</i>	-	-	<i>-ku</i>
	3.MASC.SG	<i>-i/-ĩ</i>	<i>-gi</i>	<i>-h̃ĩ</i>	-	<i>-ki</i>
	3.FEM.SG	<i>-yo</i>	<i>-go</i>	<i>-h̃õ</i>	-	<i>-ko</i>
	3.PL	<i>-ya</i>	<i>-ga</i>	<i>-h̃rã</i>	-	<i>-kua</i>

### 2.2.10. *Catalyzers*

In Jaru the bound pronoun that agrees in number (and also in case and person) is added to a catalyzer, when its controller is animate. Otherwise, it is lacking (Tsunoda 1981: 141-142).

Jaru. Australian.

(320) a. ngaju    nga-rna-**nyanta**                      yan-an    **kunyarr-awu**  
 I.ABS    CAT-1.SG.NOM-**3.SG.LOC**    go-PRES    **dog-ALL**  
 ‘I go to the dog.’

b. ngaju    nga-rna                      yan-an    ngurra-ngkawu  
 I.ABS    CAT-1.SG.NOM    go-PRES    camp-ALL  
 ‘I go to the camp.’

### 2.3. Optionality

It should be noted that animacy-dependent number marking or agreement does not always show a sharp cut between animates and inanimates, optionality being a quite common phenomenon. The path from obligatory number marking to prohibition through optionality goes together with animacy in a hierarchical way (human > animate > inanimate), as will be shown in § 2.3.1. However, in some cases, animacy is not the only element that conditions this optionality, as examples in § 2.3.2 show. Finally, in § 2.3.3 we will see that num-

ber agreement shows a high degree of optionality when the controller is not a plural NP, but a conjunction of singular NPs.

### 2.3.1. *Optionality depending on animacy*

In Kaytetye (Corbett 2000: 33-34, 127), as in Nigerian Pidgin (Corbett 2000: 75), in the latter maybe due to the influence of Igbo, plural marking is completely optional, but more common with human entities. Number specification (singular, dual, paucal, and plural) in Fijian (Corbett 2000: 23, 93) is compulsory in pronouns when they denote humans, and optional otherwise. In Kannada, a Dravidian language, overt number marking is obligatory for humans and optional for nonhumans (Corbett 2000: 61). Moreover, in this language, some nouns like ‘child’, which are neuter in terms of verbal or pronominal agreement, take the number marking as they denote a human entity. Luiseño marks the plural overtly with animate nouns, but marking is optional for inanimates (Nichols 1992: 145). Hatam shows optionality for human nouns, as shown in (321), and inanimates lack number marking (Haspelmath 2013). Pronouns in Warrgamay are even more restrictive: they almost never mark either number or person, using the 3rd person singular form as a default form for all persons (1, 2, 3) and numbers (singular, dual, plural), regardless of their animacy (cf. Figure 80 in § 3.2). Only human denoting nouns (and, sometimes, tame dogs) can optionally mark person and number (Corbett 2000: 54-55). All these examples show a dual split, that is to say, only two options are available for number marking. They have been summarized in Figure 66.

Hatam. Language isolate.

(321) munggwom(=nya)

child/children(=PL)

‘children’

**Figure 66.** Dual optionality from a crosslinguistic perspective.

	Human	Animate	Inanimate
Warrgamay	(optional)	forbidden	forbidden
Kaytetye	optional	forbidden	forbidden
Hatam	optional	no data	forbidden
Fijian	compulsory/optional	optional	optional
Kannada	compulsory	optional	optional
Luiseno	compulsory	compulsory	optional

But in some languages, the human > animate > inanimate scale can be completely instantiated in all the three phases in regards to number marking and optionality. In Comanche (Corbett 2000: 60), overt dual and plural marking follows the pattern in Figure 67. *Muna* shows the same pattern, but regarding number agreement on the verb. Nouns denoting humans (and pronouns) agree in their corresponding semantic number, and inanimates always take singular agreement even if they are semantically plural, as can be seen in (322) (Corbett 2000: 71; 2012: 92-93). Nonhuman animates show optionality. In this case the Animacy Hierarchy is outranked by the type of nominal, as free pronouns always show agreement irrespective of animacy. At the same time, in English, corporate nouns formed by individual humans agree in number, but inanimates do not, whereas nonhuman animates are doubtful, as can be seen in (323) (Corbett 2000: 188-189). In the Trans-New Guinean language *Kalam*, the semantic number agreement (singular, dual, or plural) of the subject in the verb decreases the farther one descends in the Animacy Hierarchy, toward a default singular marking. As shown in Figure 68, a human subject must show semantic agreement, higher animal subjects commonly distinguish it, semantic number is seldom distinguished when the subject is a lower animal, and inanimates are always marked with the default singular number (Pawley 2006: 87).

**Figure 67.** Rules for number marking in Comanche.

Humans	Animates	Inanimates
compulsory	optional	seldom

Muna. Austronesian

- (322) a. *bara-hi-no no-hali*  
 good-PL-his 3.SG.REAL-expensive  
 ‘His goods are expensive.’
- b. *o kadadi-hi no-rato-mo/do-rato-mo*  
 ART animal-PL 3.SG.REAL-arrive-PFV/3.PL.REAL-arrive-PFV  
 ‘The animals have arrived.’

English. Indo-European.

- (323) a. the committee are...  
 b. (?)the herd are...  
 c. \*the forest are...

**Figure 68.** Rules for semantic number marking in Kalam.

Animates			
Humans	Higher		Lower
Inanimates			
compulsory	common	seldom	forbidden

In Manam, an interesting table of optionality can be traced, which can be crossed with the amount of number values distinguished. The plural number is employed with all the nouns, irrespective of their animacy; thus, unlike in the previous examples, number is always marked. However, dual and paucal are restricted to human and higher animals (pigs, dogs, birds/fowls, some large animals recently introduced to Papua New Guinea: goats, horses, and so on). Moreover, among these higher animals, dual and paucal are optional if they are not domesticated (Croft 1990: 113; Corbett 2000: 93). These rules have been outlined in Figure 69. In the cases in which dual and paucal are optional or forbidden, the plural takes their place.

**Figure 69.** Rules for dual and paucal marking in Manam.

	Humans	Domesticated higher animals	Higher animals	Remaining animates and inanimates
Paucal	compulsory	compulsory	optional	forbidden
Dual	compulsory	compulsory	optional	forbidden
Plural	compulsory	compulsory	compulsory	compulsory

In the following example from Persian, there is some dialectal and diachronic variation affecting optionality. In theory, subject verbal agreement in the plural shows up only when the subjects are higher animates: otherwise a singular/default agreement is used. However, there is some variation between standard and modern Persian. In the former, as I have said, only animate subjects induce number agreement on the verb, whereas plural inanimate subjects agree in singular/default form (Sedighi 2005: 1), as can be seen by comparing examples (324a) and (324a'), provided by Bayanati & Toivonen (2015). Nevertheless, in modern spoken Persian, inanimate subjects may also agree optionally, as (324b) shows (Sedighi 2005: 2; Bayanati & Toivonen 2015). What controls this optionality is not clear. For some authors, it may depend on whether we consider the plural NP as a whole, or we are referring to each of the individuals; for others it lies on the collective vs. distributive reading, on the agentivity of the subject, or on the aim to emphasize the concept of plurality (Ortmann 1998; Sedighi 2005: 1; Bayanati & Toivonen 2015). Whatever the reason may be, elements often related to animacy such as agentivity, individuation, and topicality seem to be involved.

Persian. Indo-European.

(324) a. marda    umad-an    xune  
           men     come-PST.PL    home  
           'The men came home.'

a'. ketaba    bad    forush    raft  
           books    bad    sale     go.PST.SG  
           'The books sold badly.'



- b. toofan-ha-ye peyapey dehkæde ra viran kærd-Ø/-ænd  
 storm-PL-of constant village ACC destroyed did-3.SG/-3.PL  
 ‘Constant storms destroyed the village.’

### 2.3.2. *Optionality depending on animacy and other features*

As in modern spoken Persian, there are cases in which this animacy-conditioned optionality interacts with other features. In Korean, *-tul* is the plural marker on the noun (Corbett 2000: 137-138). It is optional, humans and animates being more likely marked than inanimates, but it depends also on specificity, since definite nouns are more likely marked. The feature of specificity is also important in number marking with the plural morpheme in Hupdë, together with countability (Epps 2008: 192 ff.). Inanimates are usually not marked for number, although this is possible if they are countable. Animals have optional marking, and specificity motivates it. Humans are always marked, except if they are nonspecific.

In Chukchi, optionality depends on the type of nominal and, surprisingly, on case. Singular and plural number distinction in the NP is hierarchical in Chukchi (Comrie 1989 [1981]: 189-190). Human referring NPs must distinguish singular and plural only in the nominative, whereas it is optional in other cases. Nonhuman NPs, on the other hand, must distinguish number in the nominative, but they do not make such a distinction in other cases. Pronouns, personal names, and kin terms, otherwise, make the number distinction in all cases. I have summarized the pattern in Figure 70.

**Figure 70.** Rules for number marking in Chukchi.

Pronouns, kin terms and proper names	Humans	Nonhumans
compulsory	optional in cases other than nominative	forbidden in cases other than nominative

The example of Japanese is quite interesting as there is an optionality scale for number marking, namely required > rare > impossible, which is controlled by the hierarchies of two other elements. First of all by that of the type of nominal (pronoun > proper noun > common noun), and second by that of animacy (human > animate > inanimate). The resulting combination is provided in Figure 71 (Corbett 2000: 74). Concerning animacy, recall that there are more options to have number marking with humans than with animates, and above all, than with inanimates, which restrict number marking to just pronouns.

**Figure 71.** Optionality for overt number marking in Japanese.

	Humans	Animates	Inanimates
Pronouns	required	required	required
Proper nouns	required	rare	impossible
Common nouns	possible	rare	impossible

When the controller NP is plural with a numeral modifier, in Russian there is some optionality for semantic number agreement, as example (325) shows. Together with animacy, plural agreement is more common if the subject precedes the verb, the subject is specific, the elements included in the subject are individuated, the numeral is low, the verb is active, or if the subject is feminine (Madariaga & Igartua 2017: 100). A corpus with data including texts from the last two centuries provided by Corbett (2000: 214) gives the results in Table 229, and shows how both animacy and word order are important in terms of optionality. But, as we have already mentioned, the type of numeral is also important, not only in Russian, but also in other Slavonic languages. The lower the numeral, the more likely it triggers plural agreement (Corbett 2000: 215-216): Bulgarian and Macedonian always use the plural; others use the dual for the numeral 2, the plural for 2-4, and the singular for the remaining numerals, and in Eastern Slavonic languages, the higher the numeral, the more likely the singular agreement is employed.

Russian. Indo-European.

(325) vošl-o/vošl-i	pjat'	devušek
came.in-SG.NEUT/came.in-PL	five.NOM	girl.PL.GEN
'Five girls came.'		

**Table 229.** Rate of plural agreement with number-modified controllers in Russian.

	Animate	Inanimate
Subject-predicate	81 %	49 %
Predicate-subject	49 %	20 %

Animacy operates together with other factors for semantic number agreement in Egyptian Spoken Arabic as well. When the controller is human and plural, it tends to induce plural agreement, but it can do it in the feminine singular default form as well, irrespective

of the gender of the controller. With nonhumans, feminine singular default agreement is more common than the plural one. Thus, nonhuman controllers tend to block number (and gender) agreement in favor of a default feminine singular form. In addition to animacy, the distance and the order between the controller and the target exert an influence, plural agreement being more typical when the controller precedes the target, and when the distance between them is higher. Moreover, the technique for plural marking also has a slight influence.<sup>142</sup>

### 2.3.3. *Optionality with conjoined NPs*

I have already shown that a plural referent can trigger a singular/default agreement, or no agreement, especially when it is inanimate. Moreover, we have seen that in some cases there is some optionality in this regard. Furthermore, plural agreement is even more absent when the controller is not a plural entity, but two or more singular conjoined NPs. In these cases, animacy seems to favor plural agreement, although optionally and as a tendency, as I will show in the following examples.

Note in example (326) how number agreement on the verb with conjoined singular NPs is more common with animates in Hungarian (Corbett 2000: 202). Both the singular and the plural are available, but the latter is preferred. When the conjoined NPs are inanimates, only singular agreement is allowed.

Hungarian. Uralic.

(326) John és Jill megérkeztek/megérkezett  
 John and Jill arrived-PL/arrived.SG  
 ‘John and Jill arrived.’

In Afar, when the subject is formed by two conjoined NPs, the verb shows the following pattern (cf. Figure 72): when the conjoined NPs are human, both the plural and the default number agreement (feminine singular) are allowed; with animates it is uncertain, and inanimates force the default agreement (Corbett 2000: 203-205). See an example of optionality with humans in (327).<sup>143</sup>

<sup>142</sup> In modern Arabic default feminine singular agreement is more widespread.

<sup>143</sup> Individuation and other factors can allow plural agreement with inanimate conjoined NPs as well.

Afar. Afro-Asiatic.

- (327) woò baacoytaa-kee kày toobokoyta temeete/yemeeten  
 that poor.man-and his brother came.FEM.SG/came.PL  
 ‘That poor man and his brother came.’

**Figure 72.** Rules for semantic number marking in Afar.

Humans	Animates	Inanimates
optional	uncertain	forbidden

Likewise in German and Medieval Spanish, animate conjoined NPs in subject function more likely agree in the plural in the verb when they are animate. However, in these languages, word order and concreteness enhance plural agreement together with animacy. Corbett cites two corpus-based studies to support this statement. The results of Findrengr’s study on German are given in Table 230 (Corbett 1991: 267-268; 2000: 200-201; 2012: 91-92), and those of a study on Medieval Spanish by England, in Table 231 (*apud* Corbett 1991: 267-268; 2000: 200-201). As can be seen, animate conjoined NPs trigger plural agreement more often, especially if they precede the predicate.

**Table 230.** Rate of plural agreement with singular conjoined NPs in German.

	Animate	Inanimate
Subject-predicate	96 %	67 %
Predicate-subject	93 %	40 %

**Table 231.** Rate of plural agreement with singular conjoined NPs in Medieval Spanish.

	Animate	Inanimate
Subject-predicate	96 %	31 %
Predicate-subject	69 %	6 %

In Russian, verb agreement with conjoined NPs in the verb could happen with both NPs in a semantic way, or with the nearest one, as shown in (328) (Corbett 2000: 200-201; Corbett 2006: 179). However, with animate controllers, the plural agreement is statistically more likely. A literary corpus between 1930 and 1979 (Corbett 2006: 179) shows that animate conjoined NPs agree in the plural in a 95 % of cases, and inanimates do it in the sin-

gular in a 49 % of instances. However, word order may also affect agreement, as in conjoined NPs, controller preceding the target make plural agreement more likely, in a 95 % of cases, against a 53 % of cases (Corbett 2006: 180). So, once again, both animacy and precedence condition plural agreement. In another work, Corbett provides some slightly different data from the same corpus (cf. Table 232), but these differences are not important for the conclusions achieved: In Russian word order is more important than in German and Medieval Spanish.

Russian. Indo-European.

- (328) Ogorči-l-i-s'/ogorči-l-sja                      brat                      i                      sestra.  
 upset-PST-PL-REFL/upset-PST[MASC.SG]-REFL    brother(MASC) and    sister(FEM)  
 'Brother and sister became upset.'

**Table 232.** Rate of plural agreement with singular conjoined NPs in a Russian corpus.

	Animate	Inanimate
Subject-predicate	100 %	91 %
Predicate-subject	94 %	28 %

Moreover, in Russian, elements other than verbs are affected by animacy in their number agreement with conjoined NPs. See example (329) (Corbett 2006: 220). The attributive modifier is singular in this case, according to the nearest NP, but the verb is plural. However, with animate conjoined NPs, the attributive can also be sometimes plural (few times), and relative and personal pronouns are almost always plural (Corbett 2006: 221).

Russian. Indo-European.

- (329) èt-a                      vzyskatel'nost',                      samokritičnost'  
 this-FEM.SG.NOM    exactingness(FEM)[SG.NOM]    self-criticalness(FEM)[SG.NOM]  
 tože raspolagal-i    k nemu  
 also disposed-PL    to 3.SG.MASC.DAT  
 'This exactingness and self-criticalness also disposed me favorably toward him.'

#### 2.4. Mismatches between the controller and the target

It has been already shown in §§ 2.1 and 2.2 that the feature of number may appear in both or either in the controller NP and in different targets. However, sometimes animacy

does not affect overt number marking in both, or it does not do it in the same way within a language.

In Nunggubuyu, a language from Australia, only human controller nouns overtly mark the singular/plural opposition, but it is shown in all the agreeing adjectives and verbs, irrespective of the animacy of the controller NP (Nichols 1992: 145, 150).

In Tlachichilco Tepehua, a Totonacan language, animacy operates both for number marking in the controller, and for agreement in different targets, namely numerals or adjectives (Watters 1988: 458-461; Nichols 1992: 145). As summarized in Figure 73, humans (and higher animals) are always marked for plurality and always trigger agreement. Inanimates have neither marking nor agreement, and the remaining entities are seldom marked on the noun, but they can be marked in other agreement targets like verbs, numerals, and adjectives. Examples in (330) have been provided to support these statements. In (330a), the word for ‘people’ must take the plural marker, and show plural verbal agreement, since it denotes a human entity; in (330b) the entity is quite likely marked, since it denotes a higher animate, and shows, equally, verbal agreement. Snakes, in (330c), are not considered higher animates, so they can optionally take the plural marker, although verbal agreement is compulsory. Finally, inanimate entities in (330d) have neither a marker on the controller, nor verbal agreement.

**Figure 73.** Rules for overt number marking and agreement in Tlachichilco Tepehua.

	Humans	Animates		Inanimates
		Higher	Lower	
Marking	+	+	(+)	-
Agreement	+	+	+	-

Tepehua, Tlachichilco. Totonacan.

(330) a. ta-min-ta                      pu:ma:-luw      lapana:k-ni  
           3.PL(SUB)-come-PFV CLASS-many      people-PL  
           ‘A lot of people are coming.’

b. maqtali:-n              ta-’u-y                      piyu  
       wild.animal-PL      3.PL(SUBJ)-eat-IMPF      chicken  
       ‘Wild animals eat chickens.’

- c. laq-maqni:-t      la:-t'uy      capul(-in)  
 3.PL(OBJ)-kill-PFV    CLASS-two    snake(-PL)  
 'X killed two snakes.'
- d. maka:-t      'aqs-t'uy      ma:ti  
 make-PFV    CLASS-two    door  
 'X made two doors.'

The case of Tepehua can be typologically compared to that of Miya. The former is a Totonacan language from the Americas, whereas the latter is an Afro-Asiatic language spoken in Nigeria. The interaction between marking in the NP and agreement is shown in Figure 74. Humans are always marked and show agreement, as well as high animates like domestic animals and fowl, and some large wild animals. Other animates and inanimates have optional marking, but agreement is blocked (Corbett 2000: 73). Examples in (331) show the mismatch between overt marking in the controller NP and agreement in the target, which is a demonstrative in this case. In (331a), in which the number agreement controller is a human entity, both the controller and the target show plural number. (331b) and (331c) mark plurality in the controller, but not in the target, which agrees in a default singular form.

**Figure 74.** Rules for overt number marking and agreement in Miya.

	Humans	Animates		Inanimates
		Higher	Lower	
Marking	+	+	(+)	(+)
Agreement	+	+	-	-

Miya. Afro-Asiatic.

- (331) a. nýkin      dzáfə  
 this.PL    man.PL  
 'these men'
- b. náken      víyayúw-awàw  
 this.MASC.SG    fireplace(MASC)-PL  
 'these fireplaces'





In Wappo, overt plural marking is compulsory with humans and optional for nonhumans, but adjectives show agreement only with humans (Blake 2004 [1994]: 139), as summarized in Figure 76.

**Figure 76.** Rules for overt number marking and agreement in Wappo.

	Humans	Nonhumans
Marking	+	(+)
Agreement	+	-

In conclusion, Corbett's statement is true in all of our examples, as optionality is always found in marking, but not in agreement. However, one cannot say that overt marking implies semantic number agreement or vice versa, as examples of both options have been provided here. In Tepehua and K'iche' agreement reaches lower positions in the Animacy Hierarchy than marking, whereas in Miya and Wappo marking is allowed for some entities that do not allow agreement. However, I do not have any example in which marking is compulsory, and agreement is blocked. More research should be done, but it seems, at least in my examples, that instances in which marking takes place but agreement is blocked are more common in cases of internal agreement, that happening inside the NP, than in external agreement.

## 2.5. Values distinguished

In the examples studied so far, animacy has conditioned the overt instantiation of the feature of number. However, there are examples in which, both animates and inanimates having number distinction, the values distinguished in each case differ.

Most of the examples are related to the existence of a proper dual form. In Nunggubuyu, an aboriginal language spoken in Australia, nonhuman objects do not have different markers for dual and plural on the verb agreement (Tsunoda 1981). Likewise Central Pame, in the Otomanguean family, has syncretic singular and plural forms for inanimates, as shown in Table 233 (Corbett 2000: 121-122).

**Table 233.** Number syncretisms in Central Pame.

	Singular	Dual	Plural	Gloss
Animate	<i>pákkas</i>	<i>pákkaiš</i>	<i>pákkast</i>	‘head of cattle’
Inanimate	<i>macì</i>		<i>wacì</i>	‘pitcher’

In Hopi, for instance, only animate nouns have a proper dual number marker. Inanimates must mark the dual by combining plural marking in the controller with singular agreement, as in (333) (Corbett 2000: 169).

Hopi. Uto-Aztecan.

- (333) puma wari  
 that.PL run.PFV.SG  
 ‘They (two) ran.’

In Manam, the distinction of a paucal and dual is restricted to human entities and high domesticated animates, whereas high animates can use the dual and paucal forms optionally. The remaining animates and inanimates must use just the plural, as I have summarized in Figure 69 before (Croft 1990: 113; Corbett 2000: 93).

The example of Koryak is a bit different regarding dual distinction. This Chukotko-Kamchatkan language has two different noun-declension patterns (Corbett 2000: 279). The second is used, in general, with specific human entities, and the first with the remaining entities, although some humans must always use the second pattern irrespective of their definiteness. On the other hand, other human entities must use one or other declension depending on their definiteness. That means that choosing one or other pattern lies in humanness in some cases, definiteness in others, and in both in others. Whereas the first declension differentiates singular from dual only in the absolutive case, the second declension, that for specific human entities, has a full distinct paradigm (Baerman, Brown, & Corbett 2005: 114-115). This distinction is made by means of the definiteness marker included between the root and the case marker, and it has two forms: one for the singular and another for the dual.

In the next example, from Tuyuca, there is no dual and paucal form either for animates or inanimates. Dual and paucal are syncretic with the singular or the plural depending on animacy, and thus, they lack an exclusive form. I have shown the distribution in Figure 77. Sufficing classifiers distinguish two numbers, both for animates and inanimates, usually by

the addition of a morpheme for the plural, or by a different form. With animate entities the plural form is employed to denote more than one entity, whereas with inanimates the dual and paucal (one, two, or three) are syncretic with the singular, and the plural mark is added to denote more than three entities (Barnes 1990: 274). In Vai, a Niger-Congo language, there is also a difference in the use of the singular and plural depending on animacy (Corbett 2000: 15, 74). Nonhumans have a general number/singular vs. plural system, and humans a common singular/plural one. This is also widespread in Iranian languages.

**Figure 77.** Semantic distribution of the plural marker in the classifiers of Tuyuca.

	Singular	Dual	Paucal	Plural
Animate	a	b	b	b
Inanimate	a	a	a	b

The next example is not that clear. I will contend that the following data from Inari Saami definitely show that animates distinguish dual number, and inanimates do not, which is, basically, what can be observed in the previous examples as well. In Inari Saami, the subject agrees in person and number in the finite verb. However, there is a full agreement and a reduced one (Toivonen 2007: § 2). See the paradigm of the verb ‘to be’ in Table 234, which distinguishes three person values (1, 2, 3) and three number values (singular, dual, plural) (Toivonen 2007: 230).

Whereas the full agreement paradigm distinguishes three persons and three numbers, the reduced agreement has no person distinction, and just two numbers, namely singular, and syncretic dual and plural. The choice between full or reduced agreement is controlled by the animacy of the subject (Toivonen 2007: 229): humans have full agreement, and nonhumans have the reduced one, whereas animals show optionality. See the examples in (334) (Toivonen 2007: 229-231). Recall that human entities in (334a) have full agreement, inanimates in (334b) have the reduced one, and animates in (334c) have both options available.

**Table 234.** Present indicative of the verb ‘to be’ in Inari Saami.

	Full	Reduced
	1 <i>lam</i>	
Sg	2 <i>lab</i>	<i>lii</i>
	3 <i>lii</i>	
	1 <i>láán</i>	
Du	2 <i>leppée</i>	
	3 <i>lava</i>	<i>láá</i>
	1 <i>lep</i>	
Pl	2 <i>lepped</i>	
	3 <i>láá</i>	

Saami, Inari. Uralic.

(334) a. meecist **lava** uábbi já viljá  
 forest.LOC be.3.DU sister.NOM and brother.NOM  
 ‘In the forest are my sister and brother.’

b. kyehti stuorra keedgi **láá** meecist.  
 two big rock be.3.PL forest.LOC  
 ‘Two big rocks are in the forest.’

c. puásui já peenuv **lava/láá** meecist  
 reindeer and dog be.3.DU/be.3.PL forest.LOC  
 ‘The reindeer and the dog are in the forest.’

Even if it seems that reduced agreement has effects both in person and number syncretisms, as can be inferred from Table 234, in my opinion pure animacy affects only number syncretisms, and specifically dual distinctions, and not person syncretisms. Actually, we can hardly imagine an inanimate 1st or 2nd person, which should also have a reduced agreement available, in theory. Consequently, only the 3rd person can have full or reduced agreement depending on its pure animacy, as the others must always be animate and, thus, employ full agreement. The forms for 3rd person can be summarized as in Table 235, for

the verb ‘to be’. Recall that only the full agreement, that used by animates, has a proper dual form.

**Table 235.** Present indicative of the 3rd person of the verb ‘to be’ in Inari Saami.

	Full (animate)	Reduced (inanimate)
Sg	<i>l̥i</i>	<i>l̥i</i>
Du	<i>l̥ava</i>	<i>l̥áá</i>
Pl	<i>l̥áá</i>	<i>l̥áá</i>

This being the case, why do 1st and 2nd persons also have a reduced paradigm, if they are always animate? The reason for that is that in this language human NPs can also have reduced agreement when they have a nonspecific reading, and pronouns, although they usually have full agreement, can show the reduced one when they are located after the verb, not being topics. Language contact with Finnish may also have had an influence on that (Toivonen 2007: 231-234). Thus, it can be concluded that person distinction (i.e. the syncretism of 1st and 2nd person with the third) can only be produced by elements like specificity, topicality, and language contact, but not by animacy. Number distinction, on the other hand, can be a matter of specificity, topicality, and language contact for all three persons, but pure animacy can be the reason for choosing full or reduced agreement just in the 3rd person, as it is the only person that can have both animate or inanimate referents.

The last case, that of Borana-Arsi-Guji Oromo, is interesting. In all the examples in which inanimates do not show number agreement and animates do, it is a non-singular value (usually dual or plural) that is shown by animates, and not by inanimates. This language is an exception. In this language, number marking is rare with both animate and inanimate entities. However, some entities can sometimes be marked with the plural (vs. general number), and others in the singular (vs. plural number). Surprisingly, this overt singular marking only appears with nouns denoting persons (and young bulls) (Corbett 2000: 18).

## 2.6. Inverse number marking

The example of Jemez is special. Both animates and inanimates distinguish number, and both, two values. Animates contrapose singular against a dual=plural, whereas inanimates have a common form for singular and dual, and a different one for plurals. It is especially interesting that for animates the singular is the unmarked form, as long as it is the

plural that has no marking among inanimates. If it were not enough, the marker both for animates and inanimates is the same, as can be seen in Table 236 (Corbett 2000: 160). Thus, in Jemez there is an inverse number marker governed by animacy, which is always present in the dual.

**Table 236.** Number marking in Jemez.

	Sg	Du	Pl	Gloss
Animate	<i>ve•la</i>	<i>ve•laš</i>	<i>ve•laš</i>	‘man’
Inanimate	<i>ʔeti•baš</i>	<i>ʔeti•baš</i>	<i>ʔeti•ba</i>	‘box’

There is another example of inverse marking, which unlike in Jemez, leaves the dual always unmarked. It comes from Kiowa, a Kiowa-Tanoan language from North America. Four genders are distinguished in this language (Corbett 2000: 160; Baerman, Brown, & Corbett 2005: 93-94): Gender I is largely for animates, gender II for inanimate countable nouns, gender III just for four inanimate nouns (plum/apple, tomato, hair, orange), and the last one, gender IV, for inanimate non-countable nouns. There are, however, some deviations. ‘Foot’ is in gender II but ‘leg’ in gender I, together with ‘tongue’ and ‘river, stream’, so predicting how gender assignment is made is not always straightforward. However, leaving aside cultural factors and small deviations, there are three main semantic genders (I, II, and IV) following an animacy (animate/inanimate) and individuation (countable/uncountable) scale, plus a further inanimate gender III.

Overt number marking in these genders is made following the pattern in Table 237 (Baerman, Brown, & Corbett 2005: 94). Gender IV is never marked for number, as nouns belonging to this gender are uncountable. Animates mark the plural, inanimates the singular (provided they are countable), and the four nouns in gender III mark both the singular and the plural. Besides, we should note that *-gə*, *-də*, and *-bə* are allomorphs of the same morpheme (Corbett 2000: 159).

If we forget the inanimate gender III, we can conclude that there is an inverse marker for number, which is never attached to the dual. This makes the singular and the dual syncretic for animates, and the dual and plural for inanimates, which is the opposite situation to that we find in Jemez.<sup>144</sup>

<sup>144</sup> Number syncretisms in the controllers are often resolved in verbal agreement.

**Table 237.** Number marking patterns across genders in Kiowa.

	I	II	III
	‘horse’	‘tree’	‘apple’
Sg	<i>ɛ̄:</i>	<i>á:-d̄</i>	<i>áb:-b̄</i>
Du	<i>ɛ̄:</i>	<i>á:</i>	<i>áb:</i>
Pl	<i>ɛ̄:-ḡ</i>	<i>á:</i>	<i>áb:-b̄</i>

## 2.7. Animacy as a condition for agreement controllers

Animacy may condition what the controller NP of the feature of number in an agreement target is. In Lango, this happens with the agreement controller in verbal morphology. In ditransitive sentences the indirect object causes number and person agreement in the verb, unless the direct object is animate, as can be seen in example (335) (Kittilä 2008: 262-263).

Lango. Nilo-Saharan.

(335) a. *lócə òmÿá búk*  
 man 3.SG.give.PFV.1.SG book  
 ‘The man gave me the book.’

b. *lócə òmÿe b̄òtə*  
 man 3.SG.give.PFV.3.SG to.1.SG  
 ‘The man gave him to me.’

Nanti uses possessive bound pronouns with inalienable possessed NPs. In this language, when the possessor is unidentified, if it is human, 1st person plural agreement is used, whereas with nonhuman ones 3rd person singular is employed (Michael 2013: 155). Compare examples in (336), in which ‘head’ and ‘leaf’ are always inalienable possessed NPs. This is not a matter of semantic vs. default number agreement, but a matter of defining the controller. Inalienable possessed entities that belong to a human belong to all humans as a community, that is to say, every single human owns it; hence, plural (and first person) agreement is necessary. Conversely, nonhuman controllers of inalienable possessed NPs do not pertain to the whole human community, and trigger singular agreement.

Nanti. Maipurean.

(336) a. a-gito

1.PL-head

‘human head/our head’

b. o-shi

3.FEM.SG-leaf

‘a leaf (of a plant. Lit. its leaf)’

## 2.8. Same form, different number

Several languages show an interesting pattern in which, as is common, the lower in animacy an entity is, the less it makes a number distinction. But moreover, forms denoting a number value (singular or plural) in a gender may also denote another value, or no number, in other genders. Thus, the same morpheme can be singular, plural, or may lack any number marking, depending on gender. As we will see, gender markers for lower animates, which do not encode the feature of number, are often also employed by animates, encoding then a number value.

Now, let us pay attention to some Caucasian languages. Gender markers in Chechen, in Table 238, adapted from the data provided by Nichols (1992: 126), show clearly that only human entities distinguish number. However, the form to mark the plural is also the marker for entities belonging to gender IV, which contains inanimate entities, and the form *j*, that of gender IV, is also the form for the singular of gender II. In Dido, whose gender system is in Table 239 (Corbett 1991: 190; 2012: 235), as is common in Daghestanian languages (Corbett 2012: 93), there are four genders (Corbett 1991: 26). Once again, number distinction is neutralized in the canonical gender for inanimates, but the plural marker for male rationals (humans and some heavenly entities) is syncretic with the singular of animates and several inanimates, and the plural marker of female humans and nonrational animates and several inanimates is syncretic with the form for inanimates. The pattern is very close in Bezhta (Table 240), in which we find that human feminines in gender II share the marker with the singular of animate gender III, and the plural form for humans (Ortmann 1998: 65).



**Table 238.** Gender markers in Chechen.

	Sg	Pl		Example
I	<i>v</i>	<i>b</i>	Human masculine	brother
II	<i>j</i>		Human feminine	sister
III	<i>j</i>	<i>j</i>	Animates	wolf
IV	<i>b</i>	<i>b</i>	Some inanimates	agreement
V	<i>d</i>	<i>d</i>	Some inanimates	picture

**Table 239.** Verbal gender markers in Dido.

	Sg	Pl
Male rationals	$\emptyset$	<i>b-</i>
Female rationals and some inanimates	<i>y-</i>	
Non rational animates and several inanimates	<i>b-</i>	<i>r-</i>
Inanimates	<i>r-</i>	

**Table 240.** Gender/number markers in Bezhta.

	Sg	Pl	
I	$\emptyset$	<i>b</i>	Human masculine
II	<i>b</i>		Human feminine
III	<i>b</i>	<i>j</i>	Animals, things
IV	<i>j</i>		Things

Khinalugh has different sets of verbal gender/number markers, but most of them share the same pattern, which has been summarized in Figure 78 (Corbett 1991: 119; Aikhenvald 2000: 47). There is no number distinction for the lower category of the Animacy Hierarchy, but human entities use the singular form of animates to encode the plural. Unlike in the previous example, the form for human males in the singular, that for the plural of gender III, and both the singular and plural of gender IV are syncretic as well. Chamalal shows again a number distinction in the human genders I and II, but some entities

do not make this distinction, having *j* for both the singular and the plural (Ortmann 1998: 65). In some classifications these are included in a fifth gender (Corbett 1991: 190-191).

**Figure 78.** Syncretism patterns in verbal gender/number markers in Khinalugh.

	Sg	Pl	
I	a		Human masculine
		b	
II	c		Human feminine
III	b		Most remaining animates and some inanimates
		a	
IV	a		Everything else, including abstract nouns

**Table 241.** Gender/number markers in Chamalal.

	Sg	Pl	
I	<i>v</i>		Human masculine
		<i>b</i>	
II	<i>j</i>		Human feminine
III	<i>j/l</i>		Other
IV	<i>j/v/d</i>	<i>j</i>	

Lak, although genetically related, has a slightly different pattern. The four-gender system (Corbett 1991: 24-26, 207; Ortmann 1998: 64) can be summarized thus: Gender I is for male humans, gender II for female humans (usually older), gender III for other animates, some female humans and many inanimates, and gender IV is for very few animates and some inanimates. So, once again, genders I and II are for humans and spiritual beings, but not all humans belong to genders I and II. In gender III we have nonrational animates (animals, insects, and so on) and most inanimates, but also daughters and women outside the family (Corbett 2012: 139). Gender IV is for few animates (butterfly, spider, cats (dialectal), and so forth), some objects, liquids, and abstract nouns. Moreover, the appurtenance of certain nouns to genders III and IV is difficult to predict: plants can be in genders III and IV, months are in gender III, days in gender IV, and sometimes the meaning can change depending on the gender: ‘house’ is in gender III in the singular and in IV in the plural. The word for ‘doctor’ can take gender I, II, or III depending on whether the doctor is a man, an older woman, or a younger woman (Corbett 1991: 181). Somehow, gender III is used for politeness with young girls.

If we consider that genders I and II are canonical for humans and that in gender III we can also find some humans, it must be remarked, as shown in Table 242 (Corbett 1991: 194, 208; Ortmann 1998: 64), that number distinction is not overtly marked outside the canonical human genders I and II.

**Table 242.** Gender/number markers in Lak.

	Sg	Pl
I	∅	
II	<i>d</i>	<i>b</i>
III	<i>b</i>	
IV	<i>d</i>	<i>d</i>

It is clear in all these genetically related languages that plural markers higher in the Animacy Hierarchy are singular markers for genders lower in the hierarchy, with the exception of the human masculine singular gender of Khinalugh, which, apart from being plural for genders III and IV, is also singular for male humans, and *j* in Chamalal. Moreover, there seems to be a constant crosslinguistic relation between the plural marker for humans and the singular for animates, as well as between the plural marker of animates and the singular of inanimates. These statements are also true for the forms reconstructed for Proto-East-Caucasian, shown in Table 243 (Ortmann 1998: 65). This suggests that the plurals may have been created first among humans, by employing the forms of inanimates or less animate entities, which did not distinguish number, since these are less individuated than human entities. In the case of Proto-East-Caucasian, we could imagine an older system with *w* for humans, *b* for animates, and *d* for inanimates, lacking any number distinction. Then the form for inanimates (less individuated than humans) spread to encode the plural of humans, and finally, the form for inanimates spread to encode also the plural of animates. The creation of a proper human feminine singular form syncretic with forms in gender IV is not easily explained by semantic criteria.

**Table 243.** Gender/number markers for Proto-East-Caucasian.

	Sg	Pl	
I	<i>w</i>	<i>b</i>	Masculine Human
II	<i>j</i>		Feminine Human
III	<i>b</i>	<i>d</i>	Other individuals (animals, plants, material things)
IV	<i>d</i>		Material nouns, collectives

The dialectal variation of the Caucasian language Andi, which has been addressed several times in this dissertation, allows reconstructing the way in which a singular mark can become plural, although it apparently does not follow the process I have proposed for the examples so far, in which less animate gender markers were employed to encode the plural of higher animates. As we will see, in this language the plural encoding has spread from the form for female humans. Perhaps the chronologies for both processes are not the same. First of all, let us remember again the gender/number markers in some dialects of Andi, in Table 244, Table 245, Table 246, and Table 247. Being arranged in a chronological order, recall that there is no number distinction in the conservative dialects. Thus, gender III separates animate entities from inanimates, by spreading the marker for gender II to gender III, thereby creating a number difference. The same will happen to gender IV animates in the Rikvani dialect, before losing the number distinction again, as in Lower Andi dialects. Recall how the affix *j*, which was just a gender marker, becomes also a number marker in the Upper Andi and Rikvani dialect, which may be either plural or singular, depending on gender.

**Table 244.** Gender markers in the conservative dialects of Andi.

		Sg	Pl
I	Male humans	<i>w</i>	<i>w</i>
II	Female humans	<i>j</i>	<i>j</i>
III	Most animates, some inanimates	<i>b</i>	<i>b</i>
IV	Inanimates and insects	<i>r</i>	<i>r</i>

**Table 245.** Gender markers in the Upper Andi dialect.

		Sg	Pl
I	Male humans	<i>w</i>	<i>w</i>
II	Female humans	<i>j</i>	<i>j</i>
III-A	Animates	<i>b</i>	<i>j</i>
III-B	Inanimates formerly in gender III	<i>b</i>	<i>b</i>
IV	Inanimates and insects	<i>r</i>	<i>r</i>

**Table 246.** Gender markers in the Rikvani dialect.

		Sg	Pl
I	Male humans	<i>w</i>	<i>w</i>
II	Female humans	<i>j</i>	<i>j</i>
III-A	Animates	<i>b</i>	<i>j</i>
III-B	Inanimates formerly in gender III	<i>b</i>	<i>b</i>
IV-A	Insects	<i>r</i>	<i>j</i>
IV-B	Inanimates	<i>r</i>	<i>r</i>

**Table 247.** Gender markers in Lower Andi dialects.

		Sg	Pl
I	Male humans	<i>w</i>	<i>w</i>
II	Female humans	<i>j</i>	<i>j</i>
III	Everything else	<i>b</i>	<i>b</i>

Leaving aside the Caucasus, in other areas and languages similar phenomena can be found. A clear example comes from bound pronouns in Arawak, which follow the pattern in Figure 79. Nonhumans do not distinguish number, but in the singular the feminine em-

employs a morpheme that can also be nonhuman singular and plural (Aikhenvald 2000: 50). The difference between female humans and the rest is, hence, that of number distinction.<sup>145</sup>

**Figure 79.** Number and gender syncretism patterns in Arawak.

	Sg	Pl
Masculine	a	
Feminine		c
Nonhuman	b	b

Ju|'hoan, a Kx'a language, has five different genders in the pronominal system (Baerman, Brown, & Corbett 2005: 89-90). Gender I includes humans, II is for animals and (non Ju|'hoan) nations and ethnicities, gender III includes (most) plants and foodstuffs, IV contains some inanimates (maybe long objects), and gender V is heterogeneous, including deverbal nouns, clauses, body parts, and so on. As can be seen in Table 248, only genders I and II, those for animate entities, have a number distinction as expected, but notice that *ba* can be the singular form in genders I and II, or the only form for gender III, whereas *bi* is the form for gender IV, but also the plural of gender II.

**Table 248.** Pronouns in Ju|'hoan.

	Sg	Pl
I	<i>ba</i>	<i>sila</i>
II	<i>ba</i>	<i>bi</i>
III	<i>ba</i>	
IV		<i>bi</i>
V	<i>ka</i>	

The situation in the Papuan language Marind is also interesting in terms of syncretisms. Male humans are in gender I, female humans and animals in gender II, gender III contains

<sup>145</sup> Human males are masculine and the remaining entities feminine, but there is tendency to make a connection between goodness and the masculine gender, and badness and feminine one, so non Arawak males may be considered feminine, and one's own pets, masculine (Aikhenvald 2000: 279).

plants and trees, and gender IV is employed for the remaining entities (Corbett 1991: 116; 2000: 59-60). Agreement takes place in determiners and adjectives, whose markers are shown in Table 249. It is not surprising that genders III and IV do not distinguish number, but see that the marker for the miscellaneous gender IV is also the form for the plurals of animates, and how the marker for gender III of determiners marks also singular human males in gender I.

**Table 249.** Gender markers in Marind.

	Determiner		Adjective	
	Sg	Pl	Sg	Pl
I	<i>e-</i>	<i>i-</i>	<i>-e-</i>	<i>-i-</i>
II	<i>u-</i>	<i>i-</i>	<i>-u-</i>	<i>-i-</i>
III	<i>e-</i>	<i>e-</i>	<i>-a-</i>	<i>-a-</i>
IV	<i>i-</i>	<i>i-</i>	<i>-i-</i>	<i>-i-</i>

## 2.9. (Apparent) exceptions to the relation between number and high animacy

As already pointed by authors such as Smith-Stark (1974), Comrie (1989 [1981]: 187, 189), Croft (1990: 112 ff.), Corbett (2000: 70) and Haspelmath (2013), and as we have seen in this dissertation, human or animate entities mark number more often than inanimates, and distinguish more number-values. Actually, some predictions have been made in this regard. Croft (1990: 112 ff.) states that:

- a) If there is a number distinction in the coding of nominal number for (nonhuman) animate common nouns, there will be a number distinction in the coding of human common nouns.
- b) If there is a number distinction in the coding of nominal number for inanimate common nouns, there will be a number distinction in the coding of animate common nouns.

In conclusion, there is a human > animate > inanimate hierarchy. Corbett (2000: 70) makes the following predictions (cf. also Kibort & Corbett (2008)):

- a) The singular-plural distinction in a given language must affect a top segment of the Animacy Hierarchy.

- b) Lexical items may be irregular in terms of number marking with respect to the Animacy Hierarchy and regular in terms of agreement, but not vice versa.
- c) As we move right along the Animacy Hierarchy, the likelihood of number being distinguished will decrease monotonically.

These predictions imply: A) the existence of an Animacy Hierarchy for number marking, like Croft's, but also B) that number agreement in the targets is more consistent than number marking in the controllers.

As we have seen in the previous sections, these predictions are true in general, but there are some cases in which they are not that straightforwardly fulfilled, or are fulfilled only partially.

The example of pronouns in Usila Chinantec, in Table 250 is worth mentioning, since, apart from showing that animate entities have a number distinction lacking for inanimates as usual, the number distinction is also lacking in the second person, which is always animate, against the predictions (Skinner & Skinner 2000: 490).<sup>146</sup>

**Table 250.** Free personal emphatic pronouns in Usila Chinantec.

	Sg	Pl
1	<i>búan</i> <sup>5</sup>	<i>búan</i> <sup>4</sup>
2	<i>búanb</i> <sup>43</sup>	
3 Human	<i>bñá</i> <sup>3</sup>	<i>búan</i> <sup>4</sup>
3 Nonhuman	<i>bñá</i> <sup>3</sup>	

Gender markers in Bezhta, an Eastern Caucasian language, constitute a partial exception to the rule. If we have a look at Table 251 (Ortmann 1998: 65), we will see that inanimate entities do not distinguish number. However, the same is true for feminine human entities as well, whereas animals and some things in gender III have their own plural form.

<sup>146</sup> Syncretisms concerning person have been studied in Table 256, in § V.3.2.



**Table 251.** Gender/number markers in Bezhta.

	Sg	Pl	
I	∅		Human masculine
II	<i>b</i>		Human feminine
III	<i>b</i>		Animals, things
IV	<i>j</i>		Things

Another Caucasian language shows a partial exception in its gender system. Andi, as pointed out in § 2.8, did not have any number distinction in its four-gender system. Then, animates belonging to gender III developed a singular/plural split, as can still be found in Upper Andi, and this happened to animates in gender IV in the Rikvani dialect, before neutralizing the number distinction in all genders again (cf. Table 244, Table 245, Table 246 and Table 247 in § 2.8). This means that, in Upper Andi and Rikvani, genders I and II, those for male and female humans respectively, lack a number distinction that is present among the animate entities in gender III in the case of Upper Andi, and in genders III and IV in the case of Rikvani, which constitutes an exception to the predictions. However, it should be noted that these plural distinctions have been employed, precisely, to separate animate entities from inanimate entities belonging to the same genders III or IV. Consequently, if we pay attention just to genders III or IV, animate entities in these genders have a plural form absent in inanimate entities in those genders, which, actually, fulfills the predictions.

Another presumable exception to the rule comes from German. In this language there is a subclass in the masculine declension that includes only animate nouns. Moreover, inanimate nouns formerly belonging to this subclass have been shifted to other classes (Ortmann 1998: 76-77). This “weak” declension, used with some masculine animates, distinguishes number (and case) only in the nominative. Compare both declensions in Table 252.

**Table 252.** Masculine strong and weak declension endings in German.

	Strong declension		Weak declension	
	Sg	Pl	Sg	Pl
Nom	-Ø	-e	-Ø	-en
Acc	-Ø	-e	-en	-en
Dat	-(e)	-en	-en	-en
Gen	-es	-e	-en	-en

However, in my opinion, this pretended exception to the common rule should be taken carefully. First of all, we should remember that this paradigm affects only a part of masculine nouns, thus, not all animate nouns show this syncretism pattern. On the other hand, the use of determiners always disambiguates the number syncretism, as can be seen in Table 253.

**Table 253.** Two examples comparing the strong and weak declensions in German.

Strong declension <i>Tisch</i> 'table'		Weak declension <i>Junge</i> 'boy'	
Sg	Pl	Sg	Pl
<i>der Tisch</i>	<i>die Tische</i>	<i>der Junge</i>	<i>die Jungen</i>
<i>den Tisch</i>	<i>die Tische</i>	<i>den Jungen</i>	<i>die Jungen</i>
<i>dem Tisch(e)</i>	<i>den Tischen</i>	<i>dem Jungen</i>	<i>den Jungen</i>
<i>des Tisches</i>	<i>der Tische</i>	<i>des Jungen</i>	<i>der Jungen</i>

The only clear exception I have found to the predictions comes from Ngalakan, in which the third person singular bound pronoun for animates is always zero-marked, whereas the pronoun for inanimates may or may not be overtly marked (Merlan 1983: 82-84).

Ngalakan. Australian.

- (337) a. *ɲugu-jawoŋ-ɲowi*    Ø-*rabo*                      *gunmaŋ?*    *yukaji?*  
 MASC-friend-his    3.SG.ANIM-went.PST.PUNCT    maybe    forever  
 'Maybe his friend went away forever.'

b. mu-we gu-mu-wul gu-Ø-bolk  
 MU-rain PREF-3.SG.INAN-come PREF-3.SG.INAN-emerge  
 ‘Rain is coming up, it’s coming/on its way.’

b’. mu-we gu-mu-wul gu-mu-bolk  
 MU-rain PREF-3.SG.INAN-come PREF-3.SG.INAN-emerge  
 ‘Rain is coming up, it’s coming/on its way.’

### 3. PERSON

As pointed out by Plank (1999: 292-293), among inflectional categories, number and person are the most liable to be cumulated. For my purposes, that means that often the examples and statements included in the section dedicated to number (§ 2), and some related to gender (§ 1) or case (§ 4), affect in the same way the feature of person, if all these categories are cumulated in a single morpheme. To cite just one example, pronouns in Barasana-Eduria distinguish person, number, and sex only when they are animate (cf. Table 156 in page 284 (Corbett 1991: 247)), affecting the three features at the same time. Consequently, some examples have also been addressed in other subchapters. In order to avoid being excessively repetitive, in some cases I have tried to classify the data affecting person in a different way from that of the other subchapters.

In § 3.1, I will show cases in which animacy conditions the overt realization of the feature of person. Section § 3.2 includes the cases in which person is always marked, but animacy determines the person value, which can be semantic, or a default one. As with number, animacy may determine which NP must be the controller of person agreement, as we will see in § 3.3. There are instances in which person—and often number and gender—marking depends on animacy, but also on other values. I will analyze these in § 3.4. The last section (§ 3.5) deals with obviation, which has been treated as a subtype of the person feature.

#### 3.1. Animacy as a condition for overt agreement

It is crosslinguistically very typical that an actant of a sentence, namely the subject, the direct object, the indirect object, or something else, triggers agreement in the verb by means of a bound pronoun, whose presence is restricted to the condition of having an animate controller. This pronoun, among other categories, often agrees in person. In this section I have studied those cases in which the agreement controller is the direct object (§ 3.1.1), the subject (§ 3.1.2), or other elements (§ 3.1.3). In § 3.1.4 I will provide an example

that constitutes an exception to the rule of animate entities to be more often encoded with person than inanimates.

### 3.1.1. *Object agreement*

Most of the instances in which agreement depends on animacy are related to object agreement. Examples in which animacy operates as a condition of the overt instantiation of this object-agreeing bound pronoun and, thus, of overt person agreement in the verb can be found all over the world, in languages such as Aceh, Gapapaiwa, Mundari, and Kairiru in the Austronesian family, in the Noon language, which belongs to the Niger-Congo family, and in Mauwake in the Trans-New Guinean family (Siewierska 2004: 155). Straightaway, I will show some examples in more detail.

A couple of examples of the situation in which only the feature of person is affected come from the Alor-Pantar language Bunak, in example (338) (Holton & Robinson 2014: 162), and from Takelma, in which 3rd person subject and object bound pronouns are not overtly marked in the verb, except for the object if it is human, so that ambiguity for the identification of the agent is avoided; see example (339) (Mallinson & Blake 1981: 172-173). In Romanian, verbal agreement of the human object also involves number and gender agreement, realized by a bound pronoun preceding the verb, as provided in example (340) (Mallinson & Blake 1981: 200; Siewierska 2004: 155, 158).

Bunak. Trans-New Guinean.

(338) a. Markus zo poi  
 Marcus mango choose  
 'Marcus chose a mango.'

b. Markus zap go-poi  
 Marcus dog 3-choose  
 'Marcus chose a dog.'

Takelma. Language isolate (Penutian?).

(339) a. t'ibišī t'ayak  
 ants found  
 'He found the ants.'

- b. t'ibiṣī t'ayakwa  
 ants found.3  
 'The ants found him.'

Romanian. Indo-European.

- (340) o caut pe o secreteră  
 3.SG.FEM look.for.1.SG ACC/DAT a secretary(FEM)  
 'I look for a secretary.'

Out of the verbal morphology, in Kalam a pronoun agreeing in person (and number) follows the direct object NP, only if it is animate (Pawley 2006: 88), and in Waorani a postposed element (etymologically coming from the verb 'to be') is overtly included after the object if this object is human, and seldom with domestic and big animals. Peeke (1994: 269) calls it 'object marker' or, more accurately, 'affective marker'. This is always used after human objects, and seldom with domestic and big animals, which may mark person and number, or not. As can be seen in (341), this form inflects for person (and number) (Peeke 1994: 269).

Waorani. Language isolate.

- (341) bitō tōdīya-da ī-da-te a pe-bi-i  
 your sibling-3.DU be-3.DU-ing shout call-2.SG-PST-IG  
 'Are you calling out to your two brothers?'

### 3.1.2. *Subject agreement*

Examples in which it is the subject that triggers person agreement depending on animacy are much less common, since subjects are prototypically animate. However, there are some examples, especially in intransitive sentences. Nkami shows person (and number) agreement on the verb with the subject by a bound pronoun, only when the controller NP is not overtly expressed in the sentence. The 3rd person plural animate bound pronoun *bε-* can be optionally attached to the verb, even if the plural controller NP is overtly expressed in the sentence. With inanimate controllers this is never possible, as shown in example (342) (Asante & Akanlig-Pare 2015: 69).

Nkami. Niger-Congo.

- (342) a. anansi bebiree (**bɛ**-)mina obu amu yo  
 spider many (3.PL.ANIM-)stick/be.fixed building DET self  
 ‘There are many spiders on the wall.’
- b. ntntar bebiree \***bɛ**-mina obu amu yo  
 cobweb many 3.PL.ANIM-stick/be.fixed building DET self  
 ‘There are many cobwebs on the wall.’

The optionality available for inanimates in Nkami becomes compulsory in Me’phaa (Marlett 2012: 6 ff.), in which the intransitive subject agrees in the verb in person (and number), as provided in (343). Nevertheless, not all animate subjects trigger agreement: it depends on the verb. Note in (344) that the verb ‘to fall’ does not show subject agreement, and remains unchanged (Marlett 2012: 6 ff.).

Me’phaa. Otomanguean.

- (343) a. ndāsúú?<sup>n</sup> ĩná dígi?  
 IMPF.smell.bad leaf DEM:INAN.PROX  
 ‘This plant smells bad.’
- b. ndāsúwī?<sup>n</sup> jùhkú? súgi?  
 IMPF.smell.bad.3.SG animal DEM:ANIM.PROX  
 ‘This animal smells bad.’
- (344) a. síngwa?<sup>n</sup> **nīhkà** ísí dí nītādà?  
 far PFV.fall.3.GRAL stone REL:INAN PFV.throw.2.SG  
 ‘The stone you threw fell far.’
- b. síngwa?<sup>n</sup> **nīhkà** tǝíhlú? bù nītādàà?  
 far PFV.fall.3.GRAL stone REL:ANIM PFV.throw.2.SG>3.SG  
 ‘The lizard you threw fell far.’

The reason why subject agreement conditioned by animacy is more common in intransitive sentences lies in the fact that in some languages, subject agreement is restricted to intransitive sentences, whereas in transitives it is the direct object that controls the agreement. That is the case in the language we are dealing with. In Me’phaa transitive sentences, such as that in (345), it is the object that triggers verbal agreement, and thus, it is the object agreement that controlled by animacy, as in the examples provided in § 3.1.1.

Me'phaa. Otomanguean.

- (345) a. ādāhfnjú?                   <sup>m</sup>bá           gūmā           mùhmù?  
 OPT.bring.2.SG   INDF   omelette   yellow  
 'Bring a yellow omelette.'
- b. ādāhfnjú?                   <sup>m</sup>bāā           āhk<sup>w</sup>áà<sup>n</sup>   mùhmù?  
 OPT.bring.2.SG>**3.SG**   INDF.3.SG   ant       yellow.3.SG  
 'Bring a yellow ant.'

Even out of the verbal morphology, in Guguyimidjir a pronoun marking person (and number) precedes the subject NP only when it is animate (Haviland 1979: 101-4), as I show in (346).

Guguyimidjir. Pama-Nyungan

- (346) nyulu   bidha-al       warrbi   dumbi  
 3.SG   child-ERG   axe       break.PST  
 'The child broke the axe.'

### 3.1.3. *Other elements*

Apart from the subject and object, other elements can also agree overtly in person depending on animacy, such as the goal, in the case below.

In Jaru some bound pronouns agreeing in person (and also number and case) may appear postposed to a catalyzer. The rules for the presence or absence of these bound pronouns in the catalyzer are intricate (see the rules in § IV.16) and are determined, among other elements, by animacy. The case I have provided in (347) is an instance of overt person, number, and case agreement based on the animacy of the goal (Tsunoda 1981: 141-142).

Jaru. Australian.

- (347) a. ngaju   nga-rna-**nyanta**                   yan-an       **kunyarr-awu**  
 I.ABS   CAT-1.SG.NOM-3.SG.LOC   go-PRES   dog-ALL  
 'I go to the dog.'
- b. ngaju   nga-rna                   yan-an       ngurra-ngkawu  
 I.ABS   CAT-1.SG.NOM   go-PRES   camp-ALL  
 'I go to the camp.'

In Me'phaa the overt person marking takes place inside the NP. In this Otomanguean language, many categories typically show overt person (and number) only when their controller is animate. In example (348), for instance, person is overtly marked on the adjective when the controller NP is animate (Marlett 2012: 4).

Me'phaa. Otomanguean.

- (348) a. <sup>m</sup>bá      gūmā      mùhmù?  
 INDF    omelette    yellow  
 'a yellow omelette'
- b. <sup>m</sup>bāā      āhk<sup>w</sup>áā<sup>m</sup>      mùhmiì?<sup>n</sup>  
 INDF.3.SG    ant            yellow.3.PL<sup>147</sup>  
 'a yellow ant'

### 3.1.4. *An exception on markedness*

In all the examples of overt marking seen so far, it is the animate or human object that triggers overt verbal agreement, and not the inanimate one. I have found, however, an exception in the Australian language Ngalakan (Merlan 1983: 82-84), in which it is precisely the animate controller that does not trigger any overt marking, whereas the inanimate one can be overtly marked or not, as shown in example (349).

Ngalakan. Australian.

- (349) a. ɲugu-jawoŋ-ɲowi      Ø-ɾabo                      ɠuɲmaŋ?      yukaji?  
 MASC-friend-his      3.SG.ANIM-went.PST.PUNCT    maybe      forever  
 'Maybe his friend went away forever.'
- b. mu-we    ɠu-mu-wuɭ                      ɠu-Ø-bolk  
 MU-rain    PREF-3.SG.INAN-come    PREF-3.SG.INAN-emerge  
 'Rain is coming up, it's coming/on its way.'
- b'. mu-we    ɠu-mu-wuɭ                      ɠu-mu-bolk  
 MU-rain    PREF-3.SG.INAN-come    PREF-3.SG.INAN-emerge  
 'Rain is coming up, it's coming/on its way.'

<sup>147</sup> This seems to be a mistake from the data source, since singular agreement is expected.





Other evidence that shows that person is more clearly distinguished with animates comes from the paradigm for bound pronouns in Lealao Chinantec. Person agreement in the singular is restricted to animates, as 1st and 2nd persons are homophones, as shown in Table 254 (Rupp 2009: 7). It should be noted that these pronouns are employed as free pronouns, possessive pronouns, or also attached to an adjective, agreeing with a noun in a predicative construction. When they are free pronouns, person (and number) agreement is determined by the subject, and animacy by the object. As possessive pronouns, the possessor determines person and number, and the possessed NP determines animacy. Thus, recall that, in this case, the animacy of an NP conditions person distinction in the singular of other NP.

**Table 254.** Bound pronouns in Lealao Chinantec.

		1		2	
		Pl		Sg	Pl
		Sg	Inclusive	Exclusive	
Inanimate	<i>y</i>	<i>a</i> <sup>2</sup>	<i>ab</i> <sup>1</sup>	<i>y</i>	<i>ab</i> <sup>3</sup>
Animate	<i>a</i> <sup>2</sup> , <i>a</i> <sup>4</sup>	<i>a</i> <sup>2</sup>	<i>ab</i> <sup>1</sup>	<i>u</i> <sup>3</sup>	<i>ab</i> <sup>3</sup>

The last case of animates distinguishing person more clearly than inanimates is special, and comes from Tuyuca. This Tucanoan language has an evidentiality distinction system expressed by some affixes that agree in person (1, 2/3) and tense (present, past).<sup>148</sup> Table 255 (Barnes 1994: 326) puts 1st and 2nd person evidentials together with 3rd person inanimate ones under the label of ‘others’. Consequently, only 3rd person animate entities have semantic person agreement, since the inanimates are surprisingly syncretic with 1st and 2nd person forms.

<sup>148</sup> 3rd person also has a number and sex distinction.

**Table 255.** Declarative evidentials in Tuyuca.

		Visual	Non-visual	Apparent	Second-hand	Assumed
Past	other	<i>-ni</i>	<i>-ti</i>	<i>-yu</i>	<i>-yiro</i>	<i>-h̃yu</i>
	3.MASC.SG	<i>-ni</i>	<i>-ti</i>	<i>-yi</i>	<i>-yig̃i</i>	<i>-h̃yi</i>
	3.FEM.SG	<i>-no</i>	<i>-to</i>	<i>-yo</i>	<i>-yigo</i>	<i>-h̃yo</i>
	3.PL	<i>-na</i>	<i>-ta</i>	<i>-ya</i>	<i>-yira</i>	<i>-h̃ya</i>
Present	other	<i>-a/-ã</i>	<i>-ga</i>	-	-	<i>-ku</i>
	3.MASC.SG	<i>-i/-ĩ</i>	<i>-gi</i>	<i>-h̃ĩ</i>	-	<i>-ki</i>
	3.FEM.SG	<i>-yo</i>	<i>-go</i>	<i>-h̃õ</i>	-	<i>-ko</i>
	3.PL	<i>-ya</i>	<i>-ga</i>	<i>-h̃rã</i>	-	<i>-kua</i>

The exception to the rule comes, however, from another Chinantecan language; that of Usila (Skinner & Skinner 2000: 490). The plural of the free personal emphatic pronouns, in Table 256, distinguishes person more clearly when it co-references a nonhuman entity than when it co-references a human one, since the form for 3rd person human and that for the 1st person are homophonous.

**Table 256.** Plural free personal emphatic pronouns in Usila Chinantec.

1	<i>h̃uan<sup>4</sup></i>
2	<i>h̃uanb<sup>43</sup></i>
3 Human	<i>h̃uan<sup>4</sup></i>
3 Nonhuman	<i>h̃nã<sup>3</sup></i>

### 3.3. Animacy as a condition for agreement controllers

Lango is a language in which animacy determines which NP within the clause will be the controller of person (and number) agreement in the verb. In ditransitive sentences it is the animate direct object that agrees in person (and number) on the verb, but if the direct object is animate, it is that direct object that controls this agreement, as can be seen in example (351) (Kittilä 2008: 262-263).

Lango. Nilo-Saharan.

(351) a. *lócə òmÿá búk*  
 man 3.SG.give.PFV.1.SG book

‘The man gave me the book.’

b. *lócə òmÿe bòtə*  
 man 3.SG.give.PFV.3.SG to.1.SG

‘The man gave him to me.’

The example of Nanti is interesting. This language adds compulsorily possessive bound pronouns to inalienable possessed entities. These bound pronouns agree with the possessor in person (and also in number, and in some cases, in gender). Animacy conditions the value of the feature of person, when the possessor is unidentified. If it is human, the pronoun is inflected in the first person, but if it is not human, 3rd person is employed. Examples in (352) show the contrast (Michael 2013: 155). Note that both ‘head’ and ‘leaf’ are always inalienable possessed entities in this language. This contrast is easy to understand, since inalienable possessed entities whose possessor is a human are shared by all the humans including the speaker, hence the 1st person plural, but inalienable possessed entities not owned by human will never be possessed by the speaker, hence the third person.

Nanti. Maipurean.

(352) a. *a-gito*  
 1.PL-head  
 ‘human head/our head’

b. *o-shi*  
 3.FEM.SG-leaf  
 ‘a leaf (of a plant. Lit. its leaf)’

### 3.4. Value-dependent person marking

In some cases the overt marking of the feature of person does not lie just on animacy, but is also conditioned by the value of another feature, namely specificity, salience, presupposedness, number, and so on.

In Palauan, specificity overrides humanness, since all the specific objects trigger overt agreement irrespective of their animacy and, among nonspecific ones, only humans trigger it (Ortmann 1998: 71), as shown in (353). Moreover, these bound pronouns encoding the

specific direct object in the verb are employed to encode the indirect object in ditransitive sentences as well, as shown in (354) (Ortmann 1998: 73). Examples of markers for the indirect object employed with an animate object can also be found in other languages, and this is related to the fact that indirect objects are almost always animate, and objects are not. In these strange cases in which the objects are animate, the markers are taken from the intransitive object, which is, as already mentioned, typically animate. This phenomenon is common, equally, in case marking (cf. § 4).

Palauan. Austronesian.

(353) a. *te-ʼillebed*            *a bilis*    *a rengalek*  
           3.SUBJ-PFV.hit    dog        children  
           ‘The kids hit a dog/the dog/some dog(s).’

          b. *mchelebede-terir*    *a rengalek!*  
           hit-3.PL.OBJ            children  
           ‘Hit the children!’

          c. *ak*    *mils-terir*            *a retede el sensei*  
           I        saw-3.PL.OBJ        three    teacher  
           ‘I saw three teachers.’

(354) *ak-mils-terir*            *a buk*  
           1.sg-gave-3.PL.OBJ    book  
           ‘I gave them a/the book.’

The Bantu language Swahili is similar to Palauan. In Swahili a bound pronoun agreeing in person (and also in number and gender) with the object is sometimes included (Seidl & Dimitriadis 1997). Its overt appearance seems to be conditioned by the animacy of the object, as data in example (355) show (Croft 1990: 129-130). According to Croft (1990: 123-130), the object shows verbal agreement provided it is human, or definite nonhuman. The corpus-based study from Seidl & Dimitriadis (1997) shows that animacy is not the only important factor, as there are examples of animate not overtly marked objects. Thus, animacy seems to be overridden by salience, presupposedness, topicality, and so on.

Swahili. Niger-Congo.

- (355) a. ni-li-**mw**-ona     yule   mtu  
           1.SG-PST-**OBJ**-see the   person  
           ‘I saw the person.’
- b. ni-li-**mw**-one     mto     mmoja  
           1.SG-PST-**OBJ**-see person   one  
           ‘I saw one person.’
- c. ni-li-ki-soma         kitabu  
           1.SG-PST-**OBJ**-read   book  
           ‘I read the book.’
- d. ni-li-soma         kitabu  
           1.SG-PST-read     book  
           ‘I read a book.’

### 3.5. Obviation

Obviation is a typical distinction in Algonquian and other American languages, by which a 3rd person entity is classified as proximate or obviative, depending on its discourse salience in relation to another 3rd person in the clause. This salience can be related to different factors such as empathy, topicality, and/or animacy, as in Yakama (Jansen 2012: 41), for instance. The obviative form of third person has been considered a fourth person by some authors (cf. Crystal (2008 [1980]: 338; Bickel & Nichols 2007 [2006]: 225), since in the languages affected by this distinction a person or speech act participant (SAP) scale such as  $1 > 2 > 3_{\text{PROX}} > 3_{\text{OBV}}$  can be traced for different purposes. Other authors such as Trask (1996 [1992]: 194) consider that defining obviation as a fourth person is misleading, since obviation is actually a subdivision inside the third person, like others such as politeness or animacy. However, from my point of view, subdivisions among the third person pronouns such as the abovementioned, unlike obviation, do not imply the existence of two different SAPs: that is to say, marking a third person as obviative implies the existence of another person in the speech act, which will be marked as proximate, or vice versa. However, having a subdivision that marks a third person as animate, or employing a mark to show politeness, has nothing to do with the amount of SAPs and the relation between them. Consequently, I have studied obviation phenomena related to animacy under the main feature of person.

Two subsections have been made. § 3.5.1 includes the cases in which the proximate/obviative distinction is restricted to animate NPs. On the other hand, I have provided an example in which proximate/obviative marking is not restricted to animates, but animacy may determine, under some circumstances, which NP must be proximate, and which one obviative, the latter being the only showing person agreement on the verb (§ 3.5.2).

### 3.5.1. *Obviation restricted to animate entities*

In Plains Cree, animacy does not condition the value (proximate or obviative) a third person must take, as both are restricted to animates (Wolfart & Carroll 1981 [1973]: 37). Consider the forms in Table 257. The marker *-a* is employed to mark the obviative, only with animate entities. With inanimates this marker encodes number. Ottawa, or its variant Nishnaabemwin,<sup>149</sup> is another language affected by animacy in the obviation marking. Third person distinguishes proximate and obviative on animate nouns, pronouns, and verbs (Corbett 2012: 125-126).

**Table 257.** Proximate/Obviative distinction in Plains Cree.

	Animate 'duck'		Inanimate 'berry'	
	Sg	Pl	Sg	Pl
Proximate	<i>sīsīp</i>	<i>sīsīp-ak</i>	<i>mānis</i>	<i>mānis-a</i>
Obviative	<i>sīsīp-a</i>	<i>sīsīp-a</i>	<i>mānis</i>	<i>mānis-a</i>

In the examples seen so far, obviation was animacy-dependent (animacy > obviation). In the case of Blackfoot, this obviation distinction is at the bottom of a larger hierarchy, namely definiteness > animacy > number > obviation, since the distinction is marked in definite determiners and restricted to animate singular nouns, such as those in Table 258 (Russell *et al.* 2012: 57). In the verb, the scale for obviation marking is that of person > animacy > topicality (Russell *et al.* 2012: 60-61).

<sup>149</sup> Considered by Ethnologue an emergent language, a fusion of Ottawa and Eastern Ojibwa.

**Table 258.** Determiner in Blackfoot.

		Animate		Inanimate	
		Sg			
Pl		Proximate	Obviative	Sg	Pl
		<i>-wa</i>	<i>-iksi</i>	<i>-yi</i>	<i>-istsi</i>

### 3.5.2. *Obviation as a condition for person agreement*

The example of Movima is different from that presented in the previous section (§ 3.5.1). Here the direct/obviative distinction is not restricted to animate entities, but it depends, as in the case of Yagaria mentioned at the beginning of section § 3.5, also on other factors such as person (1 > 2 > 3), and when both arguments are 3rd person, on animacy and discourse prominence.

The fact is that, in this language, a direct/inverse marker is included after the root, and then a bound pronoun agreeing with the proximate argument in person, number, and gender (masculine, feminine, inanimate). Optionally, another bound pronoun after the proximate shows obviative agreement, as shown in Figure 81 (Haude 2014: 295-296). That means that overt person (and other features) marking of an argument in the verb depends on whether it is proximate or obviative, as can be seen in (356), with the 3rd person argument. Therefore, in cases in which animacy determines which argument must be proximate and which one obviative (when both NPs are 3rd person and equally prominent), animacy is actually conditioning which NP will show person agreement compulsorily, and which one will agree optionally.

**Figure 81.** Structure of the verbal complex in Movima.

verb-direct/inverse=proximate(--obviative)

Movima. Language isolate.

(356) sal-na=Ø(--us)

look.for-DIR=1.SG(--3.MASC.AB)

‘I look for him.’



#### 4. CASE

Case is a complex feature that has been studied by typology from three different viewpoints at least, namely the semantic, the syntactic/functional, and the morphological one. The semantic point of view focuses on how a particular semantic role, which is related to the semantic features of entities and the semantic requirements of verbs (de Swart & de Hoop 2018: 8-9), is encoded. The syntactic/functional approach deals with the way syntactic functions such as the subject or the object are encoded in the sentence. Finally, a morphological point of view points at paradigms, and how cases such as the ergative, the accusative, and so on, are formally instantiated.

This leads us to an interesting discussion. Imagine an example in which a direct object is overtly case-marked with the accusative only when it is animate. Animacy would be the condition for overt case marking following the syntactic/functional approach. However, the semantic one could argue that actually, these NPs in the syntactic function of direct objects play a different semantic role in the sentence due to their inherent properties in relation to the semantic requirements of the verb, since the animate object is more affected (Kittilä, Västi, & Ylikoski 2011: 31-35; Becker 2014: 69 ff.; de Swart, Lamers, & Lestrade 2008: 134). Now, consider a statement such as ‘the accusative case is syncretic with the nominative for inanimates, and with the genitive for animates’. This is a morphological approach only traceable from a paradigmatic viewpoint, which does not make explicit what the syntactic function or semantic role of the element that takes such a marker is.

The literature about case supporting different perspectives, especially the semantic and syntactic/functional one, is abundant and the discussion is beyond the scope of this dissertation. Moreover, some languages or language families have traditionally been studied by grammarians from a particular viewpoint and consequently, choosing one or other perspective conditions inevitably the diversity of crosslinguistic data.<sup>150</sup> Thus, here I will address the feature of case, obviously, from the morphological viewpoint, but also from the syntactic/functional one (although not deeply and systematically), as it shows morphological contrasts. The semantic viewpoint, that which relates semantic roles with markers, has been

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<sup>150</sup> For instance, the morphological approach, that which deals with case syncretism within a paradigm, is very common in Slavic linguistics, but hard to find outside it.

avoided, but to a certain extent, since it often appears closely attached to the syntactic/functional approach.<sup>151</sup>

Therefore, on the one hand, a syntactic/functional perspective will be held for phenomena of overt and differential marking; that is to say, for the way in which grammatical functions are encoded in the sentence, and on the other, I will study case from a morphological point of view, by showing which syncretisms we can find between case forms and the label they are assigned to. Consequently, some phenomena may be the same but they may be studied from a different perspective; therefore, I have followed the viewpoint adopted by the data source, even if in some cases I have specified the theoretical problems that emerge to seek the role of animacy in these.

The syntactic/functional approach has been adopted in section § 4.1. Meanwhile, section § 4.2 offers a morphological viewpoint.

#### 4.1. Syntactic/functional approach

In the examples studied here we will deal with the way different syntactic/functional notions are marked in the sentence. Thus, among the core arguments, I will show how transitive subjects (or agents) are encoded (§ 4.1.1), and also how animacy may condition the marking of the direct object (patient, sometimes called also *theme* in monotransitive sentences) (§ 4.1.2), as well as the encoding of the indirect object (§ 4.1.3), which is the functional form of the recipient or goal, among others. § 4.1.4 deals with cases in which both the direct and the indirect object are conditioned by animacy, and § 4.1.5 studies a case in which the whole case marking of core cases, including subjects, depends on animacy. Noncore cases will be perfunctorily studied together in § 4.1.6. The next section (§ 4.1.7) deals with phenomena in which the marking of an argument depends on the relative animacy of another argument. Finally, section § 4.1.8 includes some examples in which animacy-based effects in case are instantiated in agreement targets, instead of the controller NP.

##### 4.1.1. Subject

In Torwali the subject is expressed by a free pronoun or a full NP, which can be marked with the nominative or oblique case, probably depending on animacy (Bashir 2003:

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<sup>151</sup> In the linguistic literature, functional labels such as ‘subject’ or ‘object’ are often mixed with semantic ones, such as ‘agent’, ‘patient’, ‘recipient’, and so on.

868). The same nominative/oblique split is found in Japanese. Inanimate subjects cannot be marked with the nominative case, and take the oblique preposition *de*, detransitivizing the sentence (Becker 2014: 66-67).

Japanese. Japonic.

(357) a. \*zidoosya-ziko ga teen-ager o korosita  
 traffic.accident NOM teenager ACC killed  
 ‘A traffic accident killed a teenager.’

b. zidoosya-ziko de, teen-ager ga sinda  
 traffic.accident in teenager NOM died  
 ‘A teenager died in a traffic accident.’

In the Australian language Djamindjung overt ergative/instrumental marking of the agent depends only partially on animacy. Following Schultze-Berndt (2015), four factors are implicated on overt agent marking in this language: verbal tense/aspect, impingement of the event on an undergoer, information structure, and animacy. The author traces the following hierarchy, in which animacy is the last factor controlling overt marking: information structure (focus tends to be marked) > verb class > animacy/semantics of the verb. Among the last category, a corpus analysis done by this linguist has shown that whereas humans and animates are almost always marked (around 80-85 %), inanimate agents are almost exclusively unmarked.

Passive sentences may also be affected. Hupdë shows differential marking for the patient subject. Inanimates are marked with the oblique case, and animates in the objective one (Epps 2008: 169, 190).

Hupdë. Puinavean

(358) a. ʔam yãʔám-ăn hup=wæd-té-h  
 2.SG jaguar-OBJ REFL=eat-FUT-DECL  
 ‘You’ll get eaten by a jaguar!’

b. mǝhǝy hup=máh-ǎy tegd’üh-út  
 deer REFL=kill-DYNM tree-OBL  
 ‘The deer was crushed by the tree.’

In Sinhala inanimate subjects must also be marked with the instrumental case, whereas animate ones are marked with the nominative. Moreover, the impossibility of inanimate

entities being proper agents also forces the syntactic construction, which must be passive, as shown in (359) (Kittilä, Västi, & Ylikoski 2011: 15).

Sinhala. Indo-European.

(359) a. lameya      wælikandak      hæduwa  
           child.NOM    sand.hill.INDF    make.PST  
           ‘The child makes a sandpile.’

b. hulangeŋ      wælikandak      hæduna  
           wind.INST    sand.hill.INDF    make-PASS.PST  
           ‘A sandpile formed because of the wind.’

#### 4.1.2. *Direct object*

The marking of the direct object has been widely studied from the viewpoint of animacy, usually under the label of Differential Object Marking. I will not use labels like that in this dissertation, as they usually treat together cases of overt marking, that is to say, examples in which the case goes from not being overtly marked to being encoded, cases of ‘pure’ differential marking, in which the feature of case is always marked, but with different values, and even examples in which the case is always marked and the value is always the same, but with different allomorphs depending on animacy. In the first two classes animacy operates as a condition for case marking (AnimC), but in the last one, animacy is just a semantic feature (AnimF) affecting a case marker. Therefore, I think labels like that are misunderstanding.

It is crosslinguistically very common for the object to be overtly case-marked when it is animate or human. This happens in Romance languages such as Romanian or Sardinian, in many Indo-Aryan languages like Bengali or Hindi, in the Indo-Iranian language Persian (Igartua 2005: 505), many Tibeto-Burman languages (Burmese, Chepang, Kok Borok) (Siewierska 2004: 61), the Pama-Nyungans Arabana and Dhargari (Comrie 1989 [1981]: 130), and so on. We will illustrate this with some examples.

Awa-Cuaiquer encodes the human direct objects by means of a postposition *ta*, as in (360) (Siewierska 2004: 47-8).

Awa-Cuaiquer. Barbacoan.

(360) na=na Demetrio ta pyan-tu  
 I=TOP Demetrio ACC hit-IMPF  
 ‘I hit Demetrio.’

Cases of split ergativity can also be studied in terms of an animacy-conditioned overt object marking. The Australian language Ritarungo has a split ergative mixed system. Pronouns have a nominative/accusative pattern, inanimates and lower animates an ergative/absolutive system, and humans and higher animates like dogs or kangaroos, a mixed ergative/accusative system. As we can see, both the type of nominal (pronoun vs. other) and animacy interact in this system (Heath 1976: 172-175). If we leave aside the split based on the type of nominal and we focus on animacy, we can state that whereas both animates and inanimates have overt agent marking with the ergative, the object is only overtly marked with the accusative with humans and higher animates, as lower animates and inanimates have absolutive zero-marking.

**Figure 82.** Split ergativity in Ritarungo.

Pronouns	Humans	Higher animates	Lower animates	Inanimates
NOM-ACC	ERG-ACC	ERG-ACC	ERG-ABS	ERG-ABS

In some languages there are some additional restrictions for overt marking, such as specificity. This is common in the Iranian branch, in languages such as Pashto or Kurdish, and in the Indo-Aryan branch, in languages like Hindi or Western Punjabi (Blake 2004 [1994]: 128-129). For instance, Bhojpuri adds the adposition *ke* with human and animate objects, if they are specific. Likewise, in Marathi, as shown in (361), *laa* is introduced, provided the patient is both specific and animate (Blake 2004 [1994]: 128-129). Eastern Punjabi also shows such a split, as definite human or animate patients are always followed by the accusative particle *nīī* (Croft 1990: 114-115; Kittilä 2005: 505-506).<sup>152</sup> It seems, from the data provided in (362), that with humans marking is compulsory (cf. (362a)), with animates it is optional (cf. (362b)), but that inanimates allow also overt marking, maybe due to defi-

<sup>152</sup> Kittilä and Croft, or their sources, differ on the cut-off point. Kittilä always talks about a human/nonhuman distinction, whereas Croft defines it as an animate/inanimate one.

nitiness (cf. (362c) and (362c')).<sup>153</sup> Hindi uses the postposition *ko* with animate and specific objects (Comrie 1979a: 16-17; 1989 [1981]: 133; Blake 2004 [1994]: 120). However, it is not clear whether specificity or animacy is more important. As shown in (363a) and (363a'), specific animate objects use the preposition, but nonspecific ones appear sometimes without it. The inanimate objects in (363b) and (363b') show that specific inanimates may also take the postposition (Comrie 1979a: 17). Thus, animate specific objects are always marked, inanimate specific ones are not, and the two possible combinations of these two show optionality. This optionality was not included in the table made by Blake (2004 [1994]: 129) and provided in Figure 83 for all the Indo-Aryan languages, as according to it, an object that is *either* nonspecific or inanimate will never be marked with the accusative, that is to say, with the adposition.

Marathi. Indo-European.

- (361) a. *ti kee| khaa-t-e*  
 she banana eat-PRES-3.SG.FEM  
 'She eats a banana.'
- b. *ti Ravi laa cha|l-a*  
 she Ravi ACC torture-pres-3.SG.FEM  
 'She tortures Ravi.'

Eastern Punjabi. Indo-European.

- (362) a. *aadmii nüü vekho*  
 man ACC see-IMP.2.PL  
 'Look at a/the man.'
- b. *billi (nüü) vekho*  
 cat ACC see-IMP.2.PL  
 'Look at a/the cat.'
- c. *éo nili kitāb nū mez te rakkho*  
 that blue book to table on put  
 'Put that blue book on the table.'

<sup>153</sup> Data in (362a) and (362b) come from Kittilä (2005: 505-506), and those in (362c), from Croft (1990: 114-115, 127). The spelling differs slightly from one to another.

c'. koi kitāb mez te rakkho  
 some book table on put  
 'Put some book on the table.'

Hindi. Indo-European.

(363) a. aura bacce ko bulā rahi hai  
 woman child ACC calling PROG is  
 'The woman is calling the/a child.'

a'. aurat baccā bulā rahī hai (few used)  
 woman child calling PROG is  
 'The woman is calling a child.'

b. un patrōm ko parhie  
 those letters ACC read.POLITE  
 'Please, read those letters.'

b'. ye patr parhie  
 these letters read.POLITE  
 'Please, read these letters.'

**Figure 83.** Core case marking in Indo-Aryan.

		Non-perfect	Perfect
Subject		agreement	agreement
Agent		agreement	ERG
Patient	[+spec][+anim]	ACC	ACC
	[-spec] or [-anim]		agreement

Far from the Indo-Aryan branch, the case particle *er* is used in the Austronesian language Palauan in the imperfective aspect for human specific objects. See (364) (Ortmann 1998: 71). In Spanish, too, only specific (definite) animate objects are marked with the preposition *a*, which is also employed also as a locative (original meaning) and as a marker of indirect object (Croft 1990: 115; Ortmann 1998: 72-73; Blake 2004 [1994]: 120; Comrie

1979a: 15; Siewierska 2004: 61).<sup>154</sup> If we look at examples in (365) (personal knowledge), we can see that both (365a) and (365a') have a human object, but the difference between both sentences is the specificity of this object. (365b) and (365b') show the same contrast with inanimate objects, but the latter is ungrammatical in Spanish. Similarly, in Halh Mongolian, only human direct objects must be marked with *-(ii)g* (Comrie 1979a: 18-19). Topicality and definiteness are also related, as nonhumans can be also marked if they are definite, or even if they are indefinite, provided they are separated from the verb, as shown in (366).

Palauan. Austronesian.

- (364) a. ng-milengelebed a bilis  
 3.SG-IMPF.hit dog  
 'S/he hits a dog/the dog/some dog(s).'
- b. a sensei a mengelebed er a rengalek  
 teacher hit CASE children  
 'The teacher is hitting the children.'

Spanish. Indo-European.

- (365) a. busco un trabajador  
 look.for.1.SG a worker  
 'I am looking for a worker. (Anyone will do.)'
- a'. busco a un trabajador  
 look.for.1.SG PREP a worker  
 'I am looking for a worker. (I can't think of his name for the moment.)'
- b. busco un bolígrafo  
 look.for.1.SG a pen  
 'I am looking for a pen.'

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<sup>154</sup> As pointed out by Tippets (2011), apart from specificity, the relative animacy of other elements in the sentence is also important. There are more *a*-marked inanimate objects when the subject is also inanimate. Moreover, there is also some dialectal variation. For López (2018: 43), the use of the preposition is optional with animate unspecific objects.



b'. \*busco            a        un    bolígrafo  
 look.for.1.SG    PREP a        pen  
 'I am looking for a pen.'

Halh Mongolian. Mongolic.

(366) a. dorž        bagš-iig        zalav  
 Dorj    teacher-POSP    invited  
 'Dorj invited the teacher.'

b. bid    nar    olan    xün-iig        üzsen  
 we    PL    many    people-POSP    saw  
 'We saw many people.'

c. Čoidog        zurag    zurav  
 Choidog    picture    painted  
 'Choidog painted a picture.'

d. zurag-iig        Čoidog    zurav  
 picture-POSP    Choidog    painted  
 'Choidog painted the picture; as for the picture, it was Choidog that painted it.'

In Maltese, however, in order to be marked with *lil*, direct objects must be human, but also highly individuated, as can be seen in (367) (Ortmann 1998: 72).

Maltese. Afro-Asiatic.

(367) a. raj-t        lil        Pawlu  
 see-1.SG    PREP    Paul  
 'I saw Paul.'

b. xtraj-t        il-ktieb  
 buy-1.SG    DEF-book  
 'I bought the book.'

The marker employed to encode the animate direct object may have additional functions. In some languages, even in some of the previous ones, the object marker is also that for the indirect objects, which are prototypically animate. This happens in Urdu, which has a postposition *ko* added to an NP in the oblique case, both for the specific animate direct object and the indirect object (Blake 2004 [1994]: 10, 129). It happens also in Romanian, a language in which the preposition *pe* is added to specific human objects and indirect objects

(Mallinson & Blake 1981: 200; Siewierska 2004: 155-158), as well as in Chamling, in which patients referring to nonhuman participants are obligatorily zero marked whereas the dative marker, that for the indirect objects, can be optionally attached to human patients, as shown in (368) (Kittilä 2005: 506; 2008: 245-246), and in Gujarati. Example (369) shows that the marker *-re*, employed with animate direct objects, is also the dative marker of the indirect object (Kittilä 2008: 255-256).

Chamling. Sino-Tibetan.

(368) a. *khu-wa lungto-wa pucho(\*-lai) set-yu*  
 he-ERG stone-INST snake(\*-DAT) kill-3  
 ‘He killed a snake with a stone.’

b. *khana khut(-lai) ta-set-yu*  
 you<sup>155</sup> he(-DAT) 2-kill-3  
 ‘You killed him.’

Gujarati. Indo-European.

(369) *sikshak-e vidaarathi-ne pustak mokl-y-un*  
 teacher-ERG student-DAT book.NEUT.SG send-PST.PFV-NEUT.SG  
 ‘The teacher sent a/the book to the student.’

It is equally common for the inanimate object to behave like the subject in terms of marking, and the animate one, like the indirect object. I will illustrate this with two examples. A special example comes from Tagalog, a language that uses different prepositions to mark the definite direct object in a very specific construction that can be translated as ‘the one who’. In these constructions, two sorts of prepositions are available for the direct object: *ng/ni*, which is used also for agents and indefinite direct objects, and *sa/kay*, which is typically used with indirect objects. Thus, provided we have this specific construction and that the direct object is definite, the tendency for using one or other set is conditioned by animacy. As shown in (370), if these definite direct objects are human, both sets are possi-

<sup>155</sup> Kittilä glosses this word as the 1st person singular personal pronoun, but it must be a mistake, since the 1st person is not involved in the sentence. Moreover, I have checked in the paradigm of pronouns provided by Ebert (2003: 535) that *khana* is the form for the second person singular personal pronoun in Chamling.

ble, but if they are inanimate, the set *sa/kay* is rare (though possible) (Comrie 1979a: 17-18).<sup>156</sup>

Tagalog. Austronesian.

(370) a. siya ang nakakita ng/sa duktor  
 he TOP the.one.who.saw PREP doctor  
 'He is the one who saw the doctor.'

b. siya ang nakakita ng/(sa) aksidente  
 he TOP the.one.who.saw PREP doctor  
 'He is the one who saw the accident.'

The other example of a direct object marked like the subject or like the indirect object depending on its animacy comes from Vafsi, an Indo-European language from Iran. This language has a bound pronominal system that distinguishes two cases: direct and oblique. One or the other case is employed depending on the syntactic function of the co-referenced argument, but also depending, in some cases, on specificity, animacy, or tense (Stilo 2004: 279). The pattern has been summarized in Figure 84. Transitive subjects are affected by tense, whereas intransitive subjects take always the direct case. Indirect objects are always oblique. Animacy affects only direct objects and adjuncts, which are marked in a direct way when they are not specific and/or animate, and in the oblique in the opposite case. In my opinion, the direct case seems to be the unmarked one, both for transitive and intransitive subjects, and for the canonical direct objects and adjuncts. Direct objects and adjuncts are marked with the oblique case when they are not canonical and become more salient (because they are animate or specific). The canonical form for indirect objects can be the oblique, as a way of encoding the difference in regard to the transitive subjects, which is always encoded in the direct case. Therefore, as I have pointed, the direct object behaves as the transitive subject or as the indirect object, depending on its animacy and specificity.

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<sup>156</sup> Pronouns and proper nouns must always use the *sa/kay* set.

**Figure 84.** Patterns for case marking in Vafsi.

	Specific/Animate		Unspecific/Inanimate	
	present DIR	past OBL	present DIR	past OBL
Transitive subject				
Intransitive subject	DIR		DIR	
Indirect object	OBL		OBL	
Direct object	OBL		DIR	
Adjunct	OBL		DIR	

The example of Yidiny is somewhat different, since the object is marked with the dative when it is animate, but with the locative if it is inanimate. This happens in the antipassive constructions of Yidiny (Comrie 1989 [1981]: 41-42). Lower animates allow both markers; therefore, a hierarchy can be traced.<sup>157</sup> See the examples in (371) (Kittilä, Västi, & Ylikoski 2011: 19) and the hierarchy in Figure 85.

Yidiny. Australian.

- (371) a. wagu:dya    bunya:-nda    wawa:-dyi-n  
           man            woman-DAT    look.at-ANTIP-PRES  
           ‘The man is looking at the woman.’
- b. nayu    balmbi:ndja/balmbi:nda                    wawa:dijnu  
           I            grasshopper.LOC/grasshopper.DAT    see.ANTIP.PST  
           ‘I saw the grasshopper.’
- c. wagu:ja    gunda:-ji-n            (jugi:!)    galba:n-da  
           man            cut-ANTIP-PRES    (tree-LOC)    axe-INST  
           ‘The man is cutting a tree with an axe.’

<sup>157</sup> Comrie (1989 [1981]: 190) states that humans must use the dative, but that there is an animacy-based continuum between animates and inanimates.

**Figure 85.** Object marking in antipassive constructions in Yidiny.

Human	Higher animate	Lower animate	Inanimate
DAT	DAT	DAT/LOC	LOC

The animate object marker may also have other functions, as in Manangba. The marker =*ri* signals the animate direct object, but is at the same time the marker for indirect objects in ditransitives, a general locative, a marker for subjects that are experiencers, a topicalizer, and an indefinite determiner, as can be seen in the examples in (372) (Hildebrandt s.d.: 112-121; Hildebrandt & Bond 2017 [2003]).<sup>158</sup> In example (372a), the direct object ‘dog’ is overtly marked with the clitic. In contrast, in example (372b), the direct object is unmarked, but it is the indirect one that takes the clitic marker.

Manangba. Sino-Tibetan.

- (372) a. k<sup>h</sup>we<sup>42</sup>    napraŋ<sup>22</sup>    p<sup>h</sup>ute=ko=tse<sup>22</sup>    njukju=ko=**ri**<sup>22</sup>    pju-pɜ<sup>52</sup>    ro<sup>22</sup>  
 honey    fly    swarm=DEF=ERG    dog=DEF=PAT    chase-NOM REP  
 ‘The swarm of honey bees chased/was chasing the dog.’
- b. mriŋ=ko=tse<sup>22</sup>    ufu=ko<sup>22</sup>    kola=ko=**ri**<sup>52</sup>    pin-tsi<sup>22</sup>  
 woman=DEF=ERG    apple=DEF    child=DEF=LOC    give-PFV  
 ‘The woman gave the apple to the boy.’

As we have already seen in some examples, overt marking can be optional. This optionality is sometimes conditioned by animacy. In Badaga, in (373), overt marking is obligatory for animates, but optional for inanimates (Kittilä 2008: 245-246), and in Baluchi, a hierarchy of obligatoriness can be traced by looking at Figure 86 (Mallinson & Blake 1981: 63). The top of the hierarchy is governed by a type of nominal hierarchy (pronouns > other), the middle by pure animacy (human > animate > inanimate), and the bottom by individuation (concrete > abstract).

<sup>158</sup> Thus, in theory, a construction like =*ri*=*ri* (INDEF.DET=LOC/ANIM.P) should be possible but it has never been elicited.

Badaga. Dravidian.

(373) a. ama ondu manusa-na nooDida  
 he a man-ACC see.PST.3.SG  
 ‘He saw a man.’

b. ama ondu kaTTe baNDi(-ya) nooDida  
 he a wood vehicle(-ACC) see.PST.3.SG  
 ‘He saw a waggon.’

Figure 86. Hierarchy of overt object marking in Baluchi.

Common nouns				
Pronouns	Humans		Inanimates	
	Animals	Animals	Concretes	Abstracts
obligatory	normal	common	possible	impossible

#### 4.1.3. Indirect object

Some verbs require three arguments, namely a subject, a direct object, and an indirect object. This indirect object may be encoded in different ways depending on its animacy. However, the role of animacy is controversial. I will illustrate this with an example from Basque.

In Basque, the indirect object of some verbs of movement is encoded in the dative case, and an inanimate one in the allative, as can be seen in (374). However, the animate indirect object would also allow an allative marker instead of the dative one, with a slight semantic difference: in the dative construction there is an idea of acceptance or reception that is lacking in the allative construction. Obviously, an inanimate indirect object cannot actively accept anything. Moreover, other verbs allow both the animate and the inanimate indirect object to be encoded in the dative case, as in (375). This makes us consider that even if approaches like Kittilä’s (2008) would take both *Maria* and *Italia* as the same argument, there are some differences in their semantics like volitionality, which suggest that *Maria* and *Italia* should in fact be considered different arguments.

Basque. Language isolate.

- (374) a. bidali liburu-a Maria-ri!  
 send book-DEF Maria-DAT  
 ‘Send the book to Maria!’
- b. bidali liburu-a Italia-ra/\*-ri!  
 send book-DEF Italy-ALL/\*DAT  
 ‘Send the book to Italy!’
- (375) a. jarri xingola Maria-ri!  
 put ribbon.DEF Maria-DAT  
 ‘Put the ribbon on Maria!’
- b. put xingola liburu-a-ri!  
 send ribbon.DEF book-DEF-DAT  
 ‘Put the ribbon on the book!’

Therefore, the examples I will provide here can be interpreted in two ways. We can consider that this third argument of ditransitives shows an animacy-based variation, or that the semantics of the verb and that of the argument itself triggers such differential marking. The sources of the data included in this section have followed the first approach, which fits better with the scope of this dissertation.

The indirect object is prototypically animate. Consequently, there are several examples in which this indirect object is zero-marked when it is animate, but overtly marked when not. These could be considered some of the few cases in which the animate form is less marked than the inanimate one. I will provide an example from Shipibo-Conibo, a Panoan language that encodes the inanimate indirect object in the allative case (Kittilä 2008: 252). Compare both examples in (376).

Shipibo-Conibo. Panoan.

- (376) a. e-n-ra piti tashianka-Ø nokon tita-Ø bo-ma-ke  
 1.ERG-ASS fish salted-ABS 1.POSS mother-ABS carry-CAUS-COMPL  
 nawa-betan  
 outsider-ASSOC  
 ‘I sent salted fish to my mother with the outsider.’

- b. no-n-ra          joni-Ø          bo-ke          jawen          jerna-**ko**  
 1.PL-ERG-EV    person-ABS    bring-COMPL    3.POSS    village-ALL  
 ‘We brought the man to our village.’

In English the indirect object can be overtly encoded both if it is animate and if it is not, by the preposition *to*. However, if it is animate, it can remain unmarked, by a phenomenon called Dative Shift, which encodes the animate indirect object as a direct object (Mallinson & Blake 1981: 161-162). Compare the examples in (377) (Blake 2004 [1994]: 139-140). Dative shift is also possible in Korean with animate entities, as shown in (378a) vs. (378a') for animate entities, and in (378b) vs. the ungrammatical (378b') for inanimates (Kittilä 2008: 253-254).<sup>159</sup> Dative shift is also optionally available for animates in the Niger-Congo language Fon. However, unlike in the previous examples, the alternative construction to the dative shift is not the use of a preposition, but a serial verb construction. See examples in (379), taken from Kittilä's (2008: 253) paper. Example (379a) shows a serial verb construction with an animate entity, whereas (379a') is the dative shift counterpart. (379b) is a serial verb construction with an inanimate entity, whose dative shift counterpart in (379b') is ungrammatical.

English. Indo-European.

- (377) a. he sent the refugees food.  
 b. \*he sent the station food.  
 b'. he sent food to the station.

Korean. Koreanic.

- (378) a. kica-ka                  enhakca-eykey    chayk-ul    ponay-ss-ta  
 journalist-NOM    linguist-DAT    book-ACC    send-PST-IND  
 ‘The journalist sent a/the book to the linguist.’  
 a'. kica-ka                  enhakca-lul      chayk-ul    ponay-ss-ta  
 journalist-NOM    linguist-ACC      book-ACC    send-PST-IND  
 ‘The journalist sent a/the book to the linguist.’

<sup>159</sup> Recall, moreover, that when dative shift is not employed, the marker for the dative is different depending on animacy.



- b. kica-ka                    wellington-ulo    chayk-ul    ponay-ss-ta  
 journalist-NOM    Wellington-DAT    book-ACC    send-PST-IND  
 ‘The journalist sent a/the book to Wellington.’
- b’. \*kica-ka                    wellington-ul    chayk-ul    ponay-ss-ta  
 journalist-NOM    Wellington-ACC    book-ACC    send-PST-IND  
 ‘The journalist sent a/the book to Wellington.’

Fon. Niger-Congo.

- (379) a. kòkú    só    àsón    ó    ná    Àsíbá  
 Koku    take    crab    DEF    give    Asiba  
 ‘Koku gave the crab to Asiba.’
- a’. kòkú    ná    Àsíbá    àsón  
 Koku    give    Asiba    crab  
 ‘Koku gave Asiba crab.’
- b. kòkú    só    àkwé    ná    kùtónù  
 Koku take    money    give    Cotonou [a place name]  
 ‘Koku gave the money to Cotonou.’
- b’. \*kòkú    ná    kùtónù    àkwé  
 Koku    give    Cotonou    money  
 ‘Koku gave Cotonou money.’

In Finnish the allative case is used for animate indirect objects, whereas the illative appears with inanimates, as shown in (380) (Kittilä 2008: 256).

Finnish. Uralic.

- (380) a. lähetti                    lähett-i                    lähettime-n                    lähettäjä-lle  
 messenger.NOM    send-3.SG.PST    transmitter-ACC    sender-ALL  
 ‘A/the messenger sent a transmitter to the sender.’
- b lähetti                    lähett-i                    lähettime-n                    lähetystö-ön  
 messenger.NOM    send-3.SG.PST    transmitter-ACC    embassy-ILL  
 ‘A/the messenger sent a transmitter to the embassy.’

#### 4.1.4. Both objects: direct and indirect

Animacy may affect overt marking of both objects in the same way. In Tanimuca-Retuarã both the direct and the indirect objects share the same marker *-te/-re*, which appears only with human NPs, as shown in Figure 87 (Kittilä 2008: 254-255). Compare the examples in (381). (381a) and (381a') show that only human direct objects are encoded overtly (cf. 'Alvaro' vs. 'fish'). (381b) and (381b') show that both the direct and the indirect object take the same marker, provided they are humans. Finally, (381c) is an example in which the direct object is not human, but the indirect object is. The data available are not enough to make such a conclusion, but it seems, looking at the subjects in sentences (381a) and (381c), that even these take the same marker, at least if they are not pronominal and bounded to the verb, as in (381a), (381b) and (381b'). If that were so, we could state that every human core NP takes the same case marker, which is uncommon. In Yakama, too, the animate object takes the same marker as for the animate indirect object, whereas both are unmarked if they are inanimate (Kittilä 2008: 262-263).

**Figure 87.** Pattern for overt case marking in Tanimuca-Retuarã.

	Direct	Indirect
Human	+	+
Nonhuman	-	-

Tanimuca-Retuarã. Tucanoan.

(381) a. *ernesto-te alvaro-te heyobaa-rape*

Ernesto-ANIM Alvaro-ANIM help-PST

'Ernest helped Alvaro.'

a'. *dõ?õka wa?ia yiha-ba?a-rape*

yesterday fish 1.PL-eat-PST

'Yesterday we ate fish.'

b. *wa?ia pisa?ãka ki-hi?a-ko?o*

fish cat 3.SG.MASC-feed-PST

'He fed the fish to the cat.'

- b'. ko-**re**                      ki-**re**                      yi-bea-yu  
 3.SG.FEM-ANIM    3.SG.MASC-ANIM    1.SG-show-PRES  
 'I show her to him (\*I show him to her).'
- c. anita-re              baʔarika      ihī-koʔo      betania-**re**  
 Anita-ANIM    food              give-PST      Bethanie-ANIM  
 'Anita gave the food to Bethanie.'

In Korku, both the direct and indirect objects are affected by animacy, but in this case, in a different way. Animacy conditions overt case marking for the direct object, and differential marking for the indirect object. Moreover, both the direct and the indirect object are not distinguished when they are animate. The pattern is shown in Table 259, and examples in (382) (Kittilä 2008: 250-251). The same pattern holds for Nepali, as shown in (383) (Kittilä 2008: 255-256). However, in this case, the inanimate indirect object can also be unmarked, if it is a place name.

**Table 259.** Direct and indirect object marking in Korku.

	Direct	Indirect
Animate	ACC <i>-ke</i>	ACC <i>-ke</i>
Inanimate	∅	DAT/LOC <i>-en</i>

Korku. Austro-Asiatic.

- (382) a. ra:ja              ra:ma-ke      sita-ke              ji-khe-nec  
 king.NOM    Ram-OBJ      Sita-OBJ              give-PST-PERS  
 'The king gave Sita to Ram.'
- b. iñj      ini-koro-ken      mya      kama:y-Ten      Di-ga:w-en  
 I              this-man-OBJ      one      work-ABL              that-village-DAT/LOC  
 kul-khe-nej  
 end-PST-PERS  
 'I sent this man on a work to that village.'

**Table 260.** Direct and indirect object marking in Nepali.

	Direct	Indirect
Animate	DAT <i>-lai</i>	DAT <i>-lai</i>
Inanimate	Ø	Place names: Ø Common nouns: <i>-ma</i>

Nepali. Indo-European.

(383) a. sikchak-le eutaa kiitaab maanche-lai pathaa-yo  
 teacher-ERG one book man-DAT send-PST  
 ‘The teacher sent a book to the man.’

b. sikchak-le eutaa kiitaab maisore pathaa-yo  
 teacher-ERG one book Mysore send-PST  
 ‘The teacher sent the book to Mysore.’

c. sikchak-le eutaa kiitaab pustakaalaya-ma pathaa-yo  
 teacher-ERG one book library-in send-PST  
 ‘The teacher sent the book to the library.’

#### 4.1.5. *All the core cases*

East Tucanoan languages and some Arawakan languages such as Tariana form a linguistic area in which animacy conditions overt marking for all the core cases: transitive and intransitive subjects, and direct and indirect objects.

Although Arawakan languages do not tend to have case marking, in Tariana we find that 3rd person pronouns show a split. If they denote an animate entity, they must be case-marked either in the subjective case (for transitive and intransitive subjects) or in the non-subjective one (for direct and indirect objects), depending on their syntactic function. This is also true for 1st and 2nd person pronouns, which are always animate. If the 3rd person pronoun denotes an inanimate entity, it is not marked for case and can optionally take a topic marker if it is the topic, as happens with other constituents that are not pronouns (Aikhenvald 1999b: 397). Therefore, case marking in third person pronouns is conditioned by animacy, whereas for the remaining pronouns and types of nominal, being case-marked or not depends on the type of nominal (pronoun/remaining).

#### 4.1.6. *Noncore cases*

Apart from the core cases, other noncore functions may be conditioned by animacy. I have already provided an example in Vafsi (cf. Figure 84), in which adjuncts are encoded in the direct or oblique case depending on their animacy. Further examples can be provided, with the notion of instrument. The instrument in Jaru is encoded in the instrumental case when it is inanimate. However, if it is animate, an alternative construction with the verb ‘to have’ and the ergative marker must be employed (Tsunoda 1981: 57-58, 142, 180, 227). See an example of an animate instrument in (384).

Jaru. Australian.

- (384) jalu-ngu    mawun-du na-ji                    jiwa-gu                    man-n  
           that-ERG    man-ERG    CAT-1.SG.ACC    fear/fright-INST    get-PRES  
           gunar-dawu-lu  
           dog-HAVING-ERG  
           ‘That man frightens me with a dog.’

In Basque, the instrumental case has many different uses, but in its canonical one, that of instruments, it is also restricted to inanimates. With animates a sociative case must be used that, otherwise, it is available also for inanimates, as shown in (385) (own knowledge).

Basque. Language isolate.

- (385) a. ni    makil-a-z                    izutu    n-au  
           me    stick-DET-INST    frighten    1.SG-ROOT  
           ‘He has frightened me with the stick.’
- a’. \*ni    katu-a-z                    izutu    n-au  
           me    cat-DET-INST    frighten    1.SG-ROOT  
           ‘He has frightened me with the cat.’
- b. ni    makil-a-rekin    izutu    n-au  
           me    stick-DET-SOC    frighten    1.SG-ROOT  
           ‘He has frightened me with the stick.’
- b’. ni    katu-a-rekin    izutu    n-au  
           me    cat-DET-SOC    frighten    1.SG-ROOT  
           ‘He has frightened me with the cat.’

In the case of location, we find that due to the restrictions for animates to take locative cases easily, some constructions are restricted just to animates. Finnish and Basque have examples of that.

Finnish has some restrictions to mark location with animate entities (Kittilä, Västi, & Ylikoski 2011: 13). For inanimate entities two different strategies are possible: the adessive case or an adposition. However, for animates only the latter is available.<sup>160</sup> See examples in (386). In Basque (own knowledge), there is a related phenomenon. Whereas with inanimate entities both the locative case and the adposition are possible although the latter is more specific, with animate entities a transitive sentence must be used. Even the locative with the animate marker (see above) is strange in this case.

Finnish. Uralic.

(386) a. kirja            on            pöydä-llä  
           book.NOM be.PRES.3.SG table-ADE  
           ‘The book is on the table.’

a'. kirja            on            pöydä-n    päällä  
           book.NOM be.PRES.3.SG table-GEN on  
           ‘The book is on the table.’

b. ?kirja            on            lapse-lla  
           book.NOM be.PRES.3.SG child-ADE  
           ‘The book is on the child.’

b'. kirja            on            lapse-n    päällä  
           book.NOM be.PRES.3.SG child- GEN on  
           ‘The book is on the child.’

Basque. Language isolate.

(387) a. liburu-a    mahai-an    dago  
           book-DET table-LOC is  
           ‘The book is on the table.’

<sup>160</sup> Actually the use of the adessive with animate entities is not ungrammatical, but it has a possessive rather than a locative reading.

a'. liburu-a mahai-a-ren gain-can dago  
 book-DET table-DET-GEN on-LOC is  
 'The book is on the (top of the) table.'

(388) b. ?liburu-a ume-a-gan dago  
 book-DET child-DET-LOC.ANIM is  
 'The book is on the child.'<sup>161</sup>

b'. ?liburu-a ume-a-ren gain-can dago  
 book-DET child-DET-GEN on-GEN is  
 'The book is on the (top of the) child.'<sup>162</sup>

c. liburu-a ume-a-k du  
 book-DET child-DET-ERG has  
 'The child has the book.'<sup>163</sup>

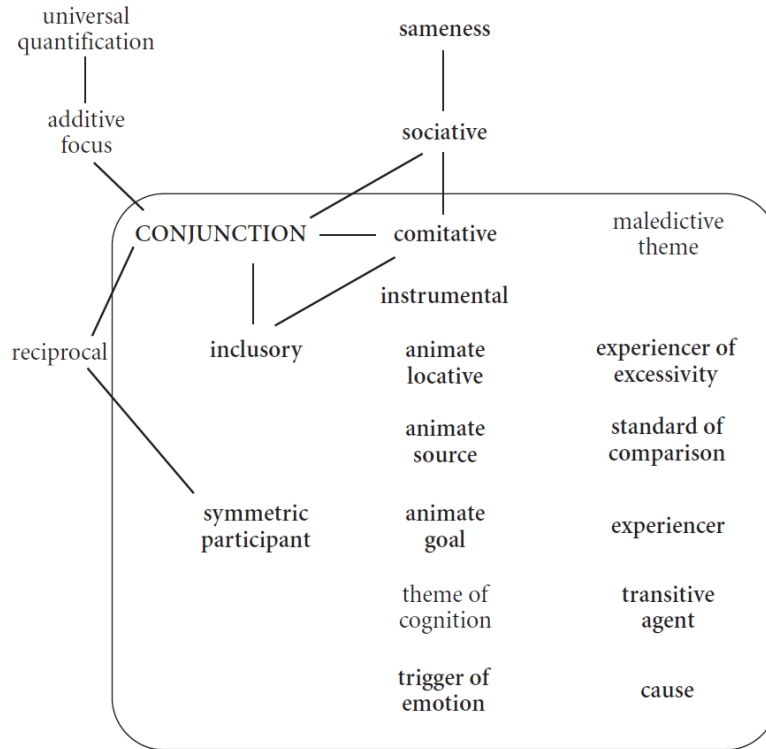
The last example is very special. It comes from Riau Indonesian. This language has a very poor morphology and syntax. It is strongly isolating, it has a free word order, no inflection, and there is a pervasive underspecification of tense, mood, aspect, thematic roles, definiteness, and so on (Gil 2004: 374-376). This language has a macrofunctional word *sama*, whose values can be seen in Figure 88 (Gil 2004: 378).

Among the multiple uses, I will focus on those in which animacy is involved. Situated in the center of the figure, there are those uses related to location: the locative, the source, and the goal. Ordinary locatives involving places are not marked with *sama*, but rather with the locative marker *di*. In example (389) we can see that as an animate locative, it might be characterized as temporary possessor (Gil 2004: 382). Ordinary inanimate sources, involving places, are marked with the source marker *dari* 'from'. Animate ones may use *sama*, as shown in examples in (390) (Gil 2004: 382). Finally, for animate goals such as places toward which motion is directed, the proclitic form *ke* 'to' is used, but animates take *sama* (Gil 2004: 382-383).

<sup>161</sup> This is only possible if we understand, metaphorically, that the content of the book has been absorbed by the child.

<sup>162</sup> This is also possible if there is no contact between the book and the child. For instance, if the book is on a bookcase located above the child.

<sup>163</sup> The canonical order in Basque is SOV. In this case, the subject occupies the preverbal position so that it can be focalized.

**Figure 88.** Values of the word *sama* in Riau Indonesian.

Riau Indonesian. Austronesian.

(389) saya simpan sama David mana?

1.SG deposit sama David which

‘Where’s what I deposited with you? (About some money that the speaker had left with David for safekeeping but now wants back)’

(390) a. minta uang sama dia

request money sama 3

‘Ask him for money (One beggar, catching sight of me, says to another).’

b. aku beli sama David

1.SG buy sama David

‘I’ll buy it from you (Offering to buy David’s camera off him).’

(391) Kenapa David tak kasi ikan sama dia?

why David NEG give fish sama 3

‘Why didn’t you give her the fish? (After fishing; usually David would give the fish that they caught to the cleaning lady; this time he hadn’t, and the speaker asks why not)’



#### 4.1.7. *Relative marking*

In some languages the animacy of a noun is not important for its case marking but in relation to another noun in the sentence. Here, some different groups can be traced, based on the function each NP has in the sentence. Marking may be dependent on the relative animacy between the subject and the direct object (§ 4.1.7.1) or the direct and the indirect object (§ 4.1.7.2). The relative animacy of some NPs in the sentence may also condition the marking in the verb. This is typical for the direct/inverse systems, which will be studied in (§ 4.1.7.3).

##### 4.1.7.1. Transitives: subject vs. object

When marking depends on the relative animacy of subjects and objects, it is often the latter that determines the overt marking of the first.

In the Kope dialect of Kiwai, a Trans-New Guinean language, the agent is marked only when the patient is at least as animate as the agent itself (Kittilä 2005: 508-509).

Kiwai. Trans-New Guinean.

- (392) a. nuu pei =o-maaka  
 3.SG canoe make-NRPST  
 'He made a canoe.'
- b. nu-ro tiramu ea=a-maaka  
 3.SG-SUBJ Tiramumu see-NRPST  
 'He saw Tiramumu.'

In Tauya the ergative marker of the subject can be optionally dropped in case the object has a nonhuman referent, and definiteness may determine the marking with nonhumans (Kittilä 2005: 485-486).

Tauya. Trans-New Guinean.

- (393) a. e fenaʔa-ni/\*fenaʔa fanu yau-a-ʔa  
 DEM woman-ERG/\*woman.ABS man see-3.SG-IND  
 'That woman saw the man.'
- b. e fenaʔa-ni/fenaʔa pai yau-a-ʔa  
 DEM woman-ERG/woman.ABS pig see-3.SG-IND  
 'That woman saw the pig.'

Likewise in the Papuan language Bauzi, the subject is overtly marked only when the object is animate, but in this case animacy is dependent on word order, as overt marking is not employed with the canonical SOV alignment (Foley 2000: 374-375).

Bauzi. East Geelvink Bay.

- (394) a. vem mum-atv ee  
 dog snake-ERG bit  
 ‘The snake bit the dog.’
- b. ubu doho ote  
 brother pig kill  
 ‘Brother killed a pig.’

In Fore, as shown in (395), the subject is marked only when the object is at least as animate as the subject, following this hierarchy: human > animate > inanimate (Kittilä 2005: 509). However, this Animacy Hierarchy is outranked by a hierarchy of type of nominal (pronouns, personal names, or kin terms) (Blake 2004 [1994]: 122). When both NPs have the same animacy, marking is optional and the first NP is taken as the subject (Mallinson & Blake 1981: 67-68; Blake 2004 [1994]: 122).

Fore. Trans-New Guinean.

- (395) a. yagaa wa' aegu'ye  
 pig man.NOM 3.SG.hit.3.SG  
 ‘The man kills the pig.’
- a. yagaa-wama wa' aegu'ye  
 pig-ERG man. NOM 3.SG.hit.3.SG  
 ‘The pig kills the man.’

The examples in Dalabon are controversial. According to Kittilä (2005: 509), whose primary source is Silverstein (1976: 129), in this language subjects are overtly marked when they are at least as animate as direct objects, or more. Data in (396) seem to support this statement. However, Mallinson & Blake (1981: 14-15) affirm that these examples are wrong because Silverstein omitted some diacritics from the original source (Capell 1962),<sup>164</sup> the pages were not well cited, and the data did not support this statement. Actually, what Ca-

<sup>164</sup> Capell (1962: 111) transcribes those sentences like this: *bulujan ga?manbunij* and *bulujanji wuduwud ga?nan*.

pell (1962: 111) says is that this morpheme is used both as an instrumental and as agentive case, and explains that in Dalabon it is often omitted, not giving any rule for it. It is true, however, that in all the examples provided by him the morpheme is omitted when the direct object is inanimate and employed when it is animate, with the exception of the sentence “(see that) crows don’t eat the meat,” but in this case, it is not difficult to argue that meat can be included among animate entities in this language, as a product coming from an animate entity.

Dalabon. Australian.

(396) a. buluNan gamanbuniN

my.father he.made.it

‘My father made it.’

b. buluNan-yi wuduwud ganan

my.father-ERG baby he.looks.at.him

‘My father is looking at the baby.’

Although it is not that typical, there are cases in which the relative animacy of the subject and the object does not condition the marking of the subject, but that of the object. In Marangis, for instance, a language spoken in Papua New Guinea, when both the agent and the object are animate, the object is marked with the dative, which is the prototypical marking of indirect objects. The agent remains unmarked (Foley 2000: 374).

Marangis. Ramu-Lower Sepik.

(397) namot markum mo ndo-ri

man pig DAT see-PST

‘The man saw the pig.’

Moreover, in Yagaria, the marking of both the subject and the object is conditioned by their relative animacy. Overt agent and patient marking is restricted to cases in which both are equal in animacy (Comrie 1989 [1981]: 130).

#### 4.1.7.2. Ditransitives: direct object vs. indirect object

The relative animacy of both the direct and the indirect object in ditransitive sentences may condition the overt case marking, usually of the direct object.

In Awa-Cuaiquer, for instance, the preposition *ta* is used with animate direct objects in monotransitive sentences, but in ditransitives, it is only available for animate indirect ob-

jects, and the direct object is never marked, regardless of its animacy. In that case, the animacy of the indirect object outranks that of the direct object (Kittilä 2008: 259-260).

In the Bantu language Gikuyu, in turn, the indirect object is marked with a preposition only if the object is animate (Mallinson & Blake 1981: 163). This also affects word order, as can be seen in (398).

Gikuyu. Niger-Congo.

- (398) a. *mūthuri ūriā mūkūru nīanengerire mūtumīa i hūa*  
 man ? old gave woman flower  
 ‘The old man gave the woman the flower.’
- b. *mūtumīa nīanengerire mwarī wake gwi kahī*  
 woman gave daughter her to boy  
 ‘The woman gave her daughter to the boy.’

Yakama has the same case marker for the direct and indirect object, which agrees also in number, as shown in Table 261 (Jansen 2012: 39). The relative animacy of one or the other in ditransitives and, in some cases, by the semantics of the verb, govern overt marking. When the indirect object is human and the direct object is not, the marker is attached to the indirect object, as in (399a) (Kittilä 2008: 262-263; Jansen 2012: 44). When both the direct object and the indirect object are human and 3rd person, either can be marked (Jansen 2012: 45-46). The same happens if the indirect object is a speech-act participant and the direct object a 3rd person human. In these cases, if we mark the indirect object, the direct object remains unmarked, but if we mark the direct object, the indirect object must be marked with the dative. Cf. (399b) and (399c).

**Table 261.** Case marker for the objects in Yakama.

Singular	Dual	Plural
<i>-nan</i>	<i>-inan</i>	<i>-maman</i>

Yakama. Sahaptian.

- (399) a. *tʰaaw-maman i-ní-ya tkwátat*  
 all-OBJ 3.SG.SUBJ/AGT-give-PST food  
 ‘He gave everyone food.’

- b. áw-isíkw'a-na=nash    iwínsh    áyat-nan  
 3.OBJ-show-PST=1.SG    man    woman-OBJ  
 'I showed the woman the man.'
- c. i-isíkw'a-na            iwínsh-nan    ayat-mí-yaw  
 3.SG.S/A-show-PST    man-OBJ    woman-GEN-DAT  
 'S/he showed the man to the woman.'

In causative constructions of Yakama (Jansen 2012: 49-50), a monotransitive clause becomes ditransitive, and if the direct object of the original clause is nonhuman and the causee is human, the causee is obligatorily marked and the object is left unmarked, as in (400a). When both are human (Jansen 2012: 50-51), if the object is 3rd person, either can be marked. In (400b), it is the object that has been marked.

Yakama. Sahaptian.

- (400) a. awkú=nash    á-shapá-ímałak-a    áyat-nan    iníit  
 then=1.SG    3.OBJ-CAUS-clean-PST    woman-OBJ    house  
 'I had the woman clean the house.'
- b. awkú=nash    á-shapá-náktkwanin-a    myánash    áyat-nan  
 then=1.SG    3.OBJ-CAUS-care.for-PST    child    woman-OBJ  
 'I had the woman take care of the child.'

#### 4.1.7.3. Direct/inverse marking

I have included direct/inverse verbal marking inside the feature of case, as it depends on the hierarchical alignment of arguments in the sentence. Often, this hierarchical arrangement that determines which argument will be more probably the subject and which one the object is animacy-based and, thus, animacy conditions whether the verb must be encoded in the direct or inverse marker, provided the hierarchical arrangement is respected or violated. Apart from this common phenomenon, as we will see, animacy may also condition whether the direct/inverse marking must be employed or not.

Direct/inverse systems are typical of Algonquian languages. In Meskwaki (Comrie 1989 [1981]: 129), when the subject is more animate than the object, direct marking is used, but when it is lower, the inverse must be used.

Athabaskan languages also show this system. In Navajo the more animate NP precedes the less animate one in the sentence, irrespective of its function (Comrie 1989 [1981]: 191;

Croft 1990: 115). When both the subject and the object are 3rd person, the direct/inverse markers disambiguate which of them is the subject, and which one is the object. If the subject is more animate, the direct marker *yi-* is employed. Otherwise, the inverse marker is *bi-*, as shown in (401) (Frishberg 1972: 262). However, spontaneous motion is a significant factor to give animacy to an inanimate entity, so, wind, rain, running water, and a lightning can be as animate as a horse (Comrie 1989 [1981]: 197). In a sentence like ‘The lightning killed the horse’ both entities have the same animacy, and inversion is optional.

Navajo. Eyak-Athabaskan.

(401) a. shinaai      lííʔ      yi-ztał  
           my.brother my.horse    DIR-kick  
           ‘My brother kicked my horse.’

          a. shinaai      lííʔ      bi-ztał  
           my.brother my.horse    INV-kick  
           ‘My horse kicked my brother.’

In Yakama, a Sahaptian language from North America, when both the subject and the object are third person, each of them shows a proximate or obviative marking, depending on their relative animacy, but also on topicality and empathy (Jansen 2012: 41). When the proximate acts upon the obviative, direct verbal marking is employed and when the obviative acts upon the proximate, which is more animate, empathic, and topic, the inverse marker is added.

Although not described with this terminology, the Australian language Dalabon has a kind of direct/inverse marking system. When both the subject and the object are 3rd persons, if the subject is more animate than the object, the verb must take the prefix *ka-*, but in the inverse situation, *bvka-* is attached (Corbett 2012: 127-128). In the example in (402), Nawoneng attacks Mimih (a spirit), marked as higher animate, but as soon as Mimih dies, he becomes less animate than Nawoneng.

Dalabon. Australian.<sup>165</sup>

- (402) **bvka**-h-ngurl-wirbme      **bvka**-h-dja-Ing-komdengkohm-inj,  
 3>3H-real-heart-rip.PRES    3>3H-REAL-just-SEQ-neck-nock-PST.PFV  
 ‘He ripped his heart out and knocked him in the back of the neck,  
  
**ka**-h-yelvg-kom-deyhm-inj      ...yelvng-njerrh-bawo-ng<sup>166</sup>  
 3>3L-real-SEQ-neck-nock-PST.PFV    ..SEQ-body-leave-PST.PFV  
 knocked him (now dead) on the back of the neck, and left his body  
  
 kanihdja    bad-kah.  
 there      rock-LOC  
 there in the rock cave.’

Now let us provide a statistical example. In Movima arguments are also encoded as proximate or obviative, depending, at least partially, on their relative animacy (cf. § 3.5.2) (Haude 2014: 295-296). Apart from that, the verb also has a direct/inverse marker. When a proximate is acting upon an obviative, the direct marker *-na* is employed. The inverse *-kay* appears when it is the obviative that acts upon a direct argument. Haude (2014: 302) has made a corpus-based study including only 3rd person participants, and comparing all the possible combinations of humans, animates, and inanimates acting upon each other, to check whether every single time the most animate entity acts upon the less animate one the direct marker is employed, or vice versa. The data have been reproduced in Table 262.

Some interesting conclusions can be reached. Direct marking is consistent when a more animate entity acts upon a lower animate one. The inverse marking is consistent with inanimates acting upon humans, as they are low in the Animacy Hierarchy. However, inverse marking is not that consistent with inanimates acting upon animates. Surprisingly, in most of the cases in which an animate entity acted upon a human one, the direct marker has

<sup>165</sup> > means that the morpheme marks both the subject and the object. 3>3H means that, the subject and the object being both 3rd person, the object is higher (H) in animacy than the subject. 3>3L means that it is lower (L).

<sup>166</sup> According to Corbett (2012: 127), *yelvngnjerrhbawong* should also be marked with *ka-*. The absence may be due to rapid speech.

been employed (63 %), which goes against the Animacy Hierarchy.<sup>167</sup> When both elements are equal in animacy, direct marking is preferred, but especially among the most animate entities.

**Table 262.** Animacy in the corpus of unmarked transitive clauses with 3rd person participants in Movima.

Scenario	Subtype	Total	%	Dir	Inv	% Dir	% Inv
Direct	human > inanimate	451	36 %	451	0	<b>100 %</b>	0
	human > animate	145	12 %	145	0	<b>100 %</b>	0
	animate > inanimate	146	12 %	146	0	<b>100 %</b>	0
Equal	human > human	300	24 %	260	40	<b>87 %</b>	13 %
	animate > animate	127	10 %	115	12	<b>91 %</b>	9 %
	inanimate > inanimate	5	0 %	3	2	<b>60 %</b>	40 %
Inverse	animate > human	62	5 %	39	23	<b>63 %</b>	37 %
	inanimate > human	8	1 %	0	8	0 %	<b>100 %</b>
	inanimate > animate	10	1 %	3	7	30 %	<b>70 %</b>
Total		1254	100 %	1162 (93 %)	92 (7 %)		

In the examples provided so far, animacy conditioned whether the verb had to be marked with the direct or inverse marker. In the example of Plains Cree, however, animacy does not condition the value (direct vs. inverse), but whether the direct/inverse system itself must be employed or not. This happens because the direct/inverse marking is restricted to cases in which the direct object is animate. In these cases, the direct/inverse marker determines the precedence between the subject (animate) and this animate object. However, this precedence is not conditioned by animacy, since both arguments are animate. Person, number, and obviation are significant in this regard (Wolfart & Carroll 1981 [1973]: 67 ff.). On the other hand, when the object is inanimate, the verb takes intransitive morphology and, therefore, no direct/inverse marker appears. Recall how in (403b) and

<sup>167</sup> Other factors such as a difference in the type of nominal employed to encode these arguments may have exerted an influence, as in the cases in which the human NP is encoded with a common noun and the animate with a pronoun.



(403c) the verb does not suffer any change although the number of the object changes, and how there is no direct/inverse marker.

Cree, Plains. Algic.

(403) a. ni-wap-am-aw-ak

1-see-ANIM-DIR-PL

‘I see them.’

a’. ni-wap-am-aw

1-see-ANIM-DIR

‘I see him.’

b. niso waskahikan-a ni-wap-aht-en

two house-PL 1-see-INAN-N3RD

‘I see two houses.’

c. peyak waskahikan ni-wap-aht-en

two house 1-see-INAN-N3RD

‘I see one house.’

#### 4.1.8. *Case agreement effects*

Case is a feature typically related to NPs. However, changes in the case marking of NPs governed by animacy trigger morphological changes in other targets. Just some examples of these will be provided, as these phenomena are also syntactic, and hence, beyond the morphological perspective of this work.

In the Australian language Jaru, for instance, NPs take case markers in an ergative-absolutive way, distinguishing a vast amount of grammatical and semantic cases on the NPs. On the other hand, there is a catalyzer to which bound pronouns may be attached. These bound pronouns agree in number and person with the NPs, but also in case (Tsunoda 1981: 143). It should be remarked, however, that there is not a straightforward correlation between the cases distinguished in the NPs and those of the bound pronouns, as in the latter only four cases are distinguished: nominative, accusative, dative, and locational, showing a nominative-accusative pattern. There is, therefore, a split ergativity between the cases in the NPs and those of the bound pronouns. The agreement in the catalyzer is governed by animacy among other factors (Tsunoda 1981: 142-143). The phenomenon has been largely explained and exemplified in § IV.16.

Verb is often affected by case. As we have already seen (§ 4.1.7.3), it is common in some languages to have direct/inverse verbal marking. But apart from that, in this very section, I have discussed the case of Plains Cree, in which the direct object does not show any verbal agreement if it is not animate, detransitivizing the verb. The verb becomes intransitive also in Japanese when the subject is inanimate, as it is marked with an oblique case, leaving the nominative for the object, as shown before in section § 4.1.1.<sup>168</sup>

The same happens in Sinhala. In this language the animate subject is encoded in the instrumental case, leaving the nominative for the object, which triggers passive verbal morphology. This passivization phenomenon is not related to the animacy of the subject in Korean, but to that of the object. Only animate objects allow becoming patient subjects. A sentence such as (404b) is ungrammatical (Yamamoto 1999: 57).

Korean. Koreanic.

(404) a. John-in ki sakwa-lil mög-össta  
 John-TOP the apple-ACC eat-PST  
 ‘John ate the apple.’

b. \*ki sakwa-nin John-ege mög-hi-össta  
 the apple-TOP John-DAT eat-PASS-PST  
 ‘\*The apple was eaten by John.’

In Basque transitive sentences, the subject is marked with the ergative case, and the direct object, in the absolutive case (cf. Odria 2017). Both arguments agree in the verb in person, number, and case, as shown in (405a). Nevertheless, if the direct object is animate, it can be (dialectally) marked with the dative and show dative agreement, which provokes the verb to have ditransitive morphology, even if there is no absolutive argument, as shown in (405b).

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<sup>168</sup> Recent research (Fauconnier & Verstraete 2010: 190 ff.) has shown that similar detransitivization phenomena in Australian languages, which have been traditionally attributed to the inanimacy of the agent (and not the object), cannot be explained by animacy, but by (the absence of) features typical for animates such as volitionality or ability for instigation.

Basque. Language isolate.

- (405) a. *nik zu ikusi z-a-it-u-t*  
 I.ERG you.ABS seen 2.ABS-vowel-PL-root-1.SG.ERG  
 ‘I have seen you.’
- b. *nik zuri ikusi d-i-zu-t*  
 I.ERG you.DAT seen PRES-DAT-2.DAT-1.SG.ERG  
 ‘I have seen you.’

Moreover, in some Pama-Nyungan languages as in Walmajarri, local cases agree in the verb only if they have an animate referent (Mallinson & Blake 1981: 88).

## 4.2. Morphological approach

Examples in this section have been addressed from a declensional, paradigmatic, and morphological viewpoint. That is to say, I study the syncretisms of cases in a declensional paradigm, regardless of the functions and semantic roles these cases may encode. There are some functional and semantic reasons for these syncretisms to happen, especially for the core cases, as I have shown in the previous section; therefore, even though I will not go in these reasons in depth, as they are beyond the morphological scope of this work, I think it is better to focus on these syncretisms from the viewpoint of the core cases. Although from a pure morphological viewpoint, there would be no difference between a statement such as “the ergative is syncretic with the instrumental” and one like “the instrumental is syncretic with the ergative.” However, maybe due to these semantic and functional implications, most of the literature has observed these syncretisms from the perspective of the core cases, as I have done here.

Section § 4.2.1 deals with the ergative as an autonomous or nonautonomous form and § 4.2.2 with the autonomy of the accusative case. Other core cases like the nominative and the dative are included in these two sections. I will conclude the section by showing how in some languages the animacy-based syncretism patterns are not extensible to the whole paradigm, but restricted just to a set of forms (§ 4.2.3).

### 4.2.1. *The autonomy of the ergative*

It is common for the ergative and the instrumental to be syncretic, but in some languages, animacy may force alternative forms. In Bats there are two ergative markers for the subject. With animates an autonomous ergative marker is employed and with the remaining

entities the same form as the instrumental must be used (DeLancey 1981: 652). The pattern is that of Figure 89.

**Figure 89.** Syncretism pattern between the ergative and the instrumental in Bats.

	Animate	Inanimate
Erg	a	b
Inst	b	b

This is also very common in Australian languages.<sup>169</sup> Animates have a proper marker for transitive subjects, and inanimates encode it in a form syncretic with the instrumental. We will cite just an example of Djingili (Fauconnier & Verstraete 2010: 187, 195). Recall in (406a) how the animate subject is encoded in the ergative, whereas in (406b) it is the instrumental that encodes the inanimate subject. (406b') is interesting, as it shows that in this language, even if the inanimate subject must be encoded in the instrumental, its modifier, a demonstrative determiner in this case, is still encoded in the ergative.

Djingili. Australian.

(406) a. *babi-rni*                      *ikiya-rnarna-nu*                      *ibilkini*  
 older.brother-ERG    wet-3.SG.SUBJ>1.SG.OBJ-did    water  
 'My brother wet me.'

b. *darrangku-warndi*    *maya-ngarna-nu*  
 tree-INST                      hit-3.SG.SUBJ>1.SG.OBJ-did  
 'I ran into a tree (Lit. The tree hit me).'

b'. *wukalu*    *ngilma-ju*    *nginda-rni-ni*                      *buba-arndi*  
 smoke    make-do    this(MASC)-ERG-FOC    fire-INST  
 'This fire is giving off smoke.'

Moreover, in the Pama Nyungan language Kuku-Yalanji, spoken in Australia, the ergative/instrumental encoding does not have a clear cut. It follows an animacy continuum in which the higher animate entities including humans are clearly encoded in the ergative case

<sup>169</sup> Actually, Fauconnier & Verstraete (2010) have demonstrated that unlike other case-marking phenomena in Australian languages, those affecting the agent are related to its animacy, and not to other semantic features.



in the singular and *-rək* in the plural, which is syncretic with the locative case. Nonhumans (animate and inanimates) must use *-(t)e* (Comrie 1989 [1981]: 190).

**Table 264.** Ergative syncretisms in Chukchi.

	Human	Nonhuman
Inst	<i>-(t)e</i>	
Erg		<i>-(t)e</i>
Loc	<i>-ne</i> (Sg)/ <i>-rək</i> (Pl)	<i>-ne</i> (Sg)/ <i>-rək</i> (Pl)

Likewise in Koryak the ergative marker shows syncretisms with the locative and the instrumental, but at the same time. The role of animacy is not that straightforward in this language, which has two different noun-declension patterns (Corbett 2000: 279). The second is used, in general, with specific human entities, and the first with the rest, although some humans must always use the second pattern irrespective of their definiteness. On the other hand, other human entities must use one or the other declension depending on their definiteness. That means that choosing one or the other pattern rests on humanness in some cases, definiteness in others, and on both in others. However, for nouns that choose the declension depending on animacy or both on animacy and definiteness, it can be stated that animates show a instrumental/ergative/locative syncretism, whereas inanimates just have an instrumental/ergative one, as shown in Table 265 (Baerman, Brown, & Corbett 2005: 49-50).<sup>170</sup>

<sup>170</sup> In the second declension, a determiner is included between the lexeme and the marker. Therefore, complete syncretism between both declensions is avoided.

**Table 265.** Ergative syncretisms in Koryak.

	2nd declension (animates)	1st declension (inanimates)
Inst		
Erg	- <i>k</i>	- <i>ta</i>
Loc		- <i>k</i>

#### 4.2.2. *The autonomy of the accusative*

There are many examples in which the accusative is syncretic with other cases for inanimates, especially with the nominative, and independent with animates. That is the case for Telugu, as shown in Table 266 for the plural forms (Baerman, Brown, & Corbett 2005: 42). We find a similar situation in Finnish, as in this language only animates have a proper accusative marker (-*t*), which appears in 3rd person pronouns: in inanimates, nominative and accusative are syncretic (Comrie 1979a: 15-16). However, as can be seen in Table 267, the nominative/accusative form for inanimates is different from the nominative of animates, since the form for inanimates is actually a demonstrative.

**Table 266.** Plural noun declension in Telugu.

	Inanimate 'houses'	Animate 'dogs'
Nom	<i>iḷḷu</i>	<i>kukkalu</i>
Acc	<i>iḷḷu</i>	<i>kukkalanī</i>
Gen	<i>iḷḷa</i>	<i>kukkala</i>
Dat	<i>iḷḷaki</i>	<i>kukkalaki</i>

**Table 267.** 3rd person pronoun in Finnish.

	Inanimate	Animate
Nom	<i>se</i>	<i>hän</i>
Acc	<i>se</i>	<i>hänet</i>

Cases of split ergativity such as those mentioned in § 4.1.2 can also be studied from a morphological approach, by looking at the paradigmatic independence of the accusative case. I will provide just one example of the Australian language Dhangu-Djangu, in Table 268 (Baerman 2009: 223). Actually, the pure nominative(=erg/abs)/accusative system affects only pronouns, so there is first a pronoun/common noun split in which animacy is not involved. Among common nouns, inanimates follow an ergative/absolutive(=nom/acc) system, and only animates have an independent accusative form, as they follow a mixed ergative/nominative/accusative pattern.

**Table 268.** Core case syncretism in Dhangu-Djangu.

	Pronoun 'we.DU.EXCL'	Animate 'woman'	Inanimate 'story'
Erg <sup>171</sup>	<i>ŋalin<sup>ŋ</sup>u</i>	<i>takkayu</i>	<i>ṭāwɣyu</i>
Nom/Abs	<i>ŋalin<sup>ŋ</sup>u</i>	<i>taykka</i>	<i>ṭāwu</i>
Acc	<i>ŋalin<sup>ŋ</sup>un<sup>ŋ</sup>a</i>	<i>taykkan<sup>ŋ</sup>a</i>	<i>ṭāwu</i>

In other cases, the accusative is never autonomous. The form for animates is syncretic with the nominative, and that for inanimates, with another case. It is common to find that the accusative for animate entities takes the dative form. An example of this can be found in Eastern Armenian, whose declension paradigm follows the pattern in Figure 91 (Baerman, Brown, & Corbett 2005: 47).

<sup>171</sup> The ergative is also syncretic with the instrumental.



**Figure 91.** Syncretism pattern in the Eastern Armenian case system.

	Inanimate	Animate
Nom	a	a
Acc	a	b
Dat	b	b

Apart from the nominative/accusative vs. accusative/dative syncretism, the nonautonomous accusative may be syncretic with the nominative for animates, but with an oblique case for inanimates. Compare Table 269 (Janse 2004: 7) and Table 270 (Janse 2004: 9) from former masculine nouns in *-os*, in Cappadocian Greek. In the singular, nominative and accusative are always syncretic (except for indefinite forms). In the plural, however, the nominative does not have an autonomous form, as we have a genitive/nominative syncretism with animates, and a nominative/accusative among inanimates (cf. Igartua & Santazilia (2018a) for a diachronic explanation).

**Table 269.** Animate masculine nouns in *-os* in Cappadocian Greek.

'man'	Sg	Pl
Nom	<i>áthropos</i>	<i>aθróp</i>
Acc	Definite <i>áthropos</i>	<i>aθrópus</i>
	Indefinite <i>áthroþo</i>	
Gen	<i>aθróp</i>	

**Table 270.** Inanimate masculine nouns in *-os* in Cappadocian Greek.

'mill'	Sg	Pl
Nom	<i>mílos</i>	
Acc	Definite <i>mílos</i>	<i>mílus</i>
	Inefinite <i>mílo</i>	
Gen	<i>míl (mil-jú)</i>	

This animacy-dependent nominative/accusative vs. accusative/genitive syncretism is typical for the Slavic family. It is common to all languages in the masculine singular para-

digm, as in example (408) from Russian (Comrie 1979a: 15), but it shows variation in the remaining paradigms. Some languages have extended it to the masculine plural or even dual, and other languages, even to the feminine and neuter genders in the plural. I will provide here just some examples (cf. Huntley's (1980) and Igartua's (2005: § 3.1) crosslinguistic and diachronic descriptions).

Russian. Indo-European.

(408) a. *begemot ljubit nosorog-a*  
 hippopotamus loves rhinoceros-ACC/GEN  
 'The hippopotamus loves the rhinoceros.'

b. *begemot ljubit il-Ø*  
 hippopotamus loves slime-NOM/ACC  
 'The hippopotamus loves (the) slime.'

In Serbo-Croatian the scope of animacy is quite restrictive, and syncretism affects only masculine singular nouns, which is common to all the Slavic languages (Corbett 1991: 161-165).<sup>172</sup> See the paradigm in Table 271 (Corbett 1991: 162). This is also the pattern in Czech and Slovene (Igartua 2005: 480-482).

The syncretism has been spread to the masculine plural in some languages. In Polish, masculine plural human nouns have an accusative/genitive syncretism, and masculine plural nonhuman nouns, a nominative/accusative one. Note in the example (409b) that feminine nouns ('girls') or nonhuman nouns ('dogs') do not have such an alternance, and always show a nominative accusative syncretism (Comrie 1989 [1981]: 132). Apart from Polish, Slovak, dialectal Ukrainian, and Belarusian show the same pattern (Igartua 2005: 480-482).

Polish. Indo-European.

(409) a. *widziałem chłopców (vs. NOM chłopcy)*  
 saw boys(ANIM).ACC/GEN  
 'I saw the boys.'

<sup>172</sup> There is also a subgroup of masculine nouns that have autonomous nominative, accusative, and genitive forms (Corbett 1991: 165).

b. *widziałem dziewczyny,*                      *psy,*  
 saw                      *girls(FEM).NOM/ACC*      *dogs(MASC).NOM/ACC*  
*stoły*  
 tables(INAN).NOM/ACC

‘I saw the girls/dogs/tables.’

**Table 271.** Declension paradigm in Serbo-Croatian.

	Masculine		Feminine	Neuter
	Animate	Inanimate		
	‘this student’	‘law’		
Sg				
Nom	<i>ovaj student</i>	<i>ovaj zakon</i>	<i>ovu školu</i>	<i>ovo vino</i>
Acc	<i>ovog studenta</i>	<i>ovaj zakon</i>	<i>ove škole</i>	<i>ovo vino</i>
Gen	<i>ovog studenta</i>	<i>ëtoga duba</i>	<i>ove škole</i>	<i>ovog vina</i>
Dat	<i>ovom student</i>	<i>ovom zakonu</i>	<i>ovoj školi</i>	<i>ovom vinu</i>
Inst	<i>ovim studentom</i>	<i>ovim zakonom</i>	<i>ovom školom</i>	<i>ovim vinorum</i>
Pl				
Nom	<i>ovi studenti</i>	<i>ovi zakoni</i>	<i>ove škole</i>	<i>ova vina</i>
Acc	<i>ove studente</i>	<i>ove zakone</i>	<i>ove škole</i>	<i>ova vina</i>
Gen	<i>ovih studenātä</i>	<i>ovih zakonā</i>	<i>ovih školā</i>	<i>ovih vinā</i>
Dat	<i>ovim studentima</i>	<i>ovim zakonima</i>	<i>ovim školama</i>	<i>ovim vinima</i>
Inst	<i>ovim studentima</i>	<i>ovim zakonima</i>	<i>ovim školama</i>	<i>ovim vinima</i>

In Lower Sorbian, the syncretism has also reached the masculine dual paradigm, apart from the singular and the plural. However, in the dual it is restricted to numeral structures and adpositions (Igartua 2005: 481). In Upper Sorbian the accusative/genitive syncretism for masculine animates (except for those belonging to the *a*-stems) is also number-dependent. As usual, singular nouns show it, but in the dual and plural syncretism is restricted not to animates, but to humans (Stone 1993: 615).

Finally, consider the full paradigm of Russian in Table 272 (Corbett 1991: 166). As pointed out by Corbett (2012: 162), the animacy-based nominative/accusative vs. accusative/genitive split has spread from the singular to the plural as in other languages, but in the plural, we can find it, apart from the masculine, also in the feminine and neuter. Actually, in the plural paradigm the sex-based distinction has been neutralized in favor of an animacy-based one, since all the declension forms are equal for all the genders (Corbett 1991: 132-133).<sup>173</sup> This pattern can be also found in literary Belarusian and Dialectal Ukrainian (Igartua 2005: 480-482).

There is some evidence that shows that the nominative/accusative vs. accusative/genitive syncretism may be conditioned by further restrictions, apart from animacy, such as definiteness or topicality. Old Church Slavonic shows the same syncretism pattern in Slavonic languages. This language behaves like Serbo-Croatian, in that Nominative/accusative syncretism is restricted to masculine singular nouns (which commonly belong to the *o* stem), denoting humans and some animals (Eckhoff 2015: 235). However, Eckhoff made a study based on a corpus of Old Church Slavonic texts translated from Greek, which shows that these rules do not account for all the syncretisms found therein, and that more conditions might apply. Eckhoff (2015) concludes that, besides animacy, the syncretism is conditioned primarily by information status and discourse prominence, such as:

- Old and accessible objects usually show accusative/genitive syncretism, and new objects show variation.
- Important participants that are repeatedly picked up in the subsequent narrative more likely show accusative/genitive syncretism.
- Definites usually show accusative/genitive syncretism.
- Indefinites show variation.
- The first mention of an important participant object with low topic subject shows accusative/genitive syncretism.

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<sup>173</sup> Personal pronouns always show accusative/genitive syncretism, even if they do not denote animate entities (Comrie 1979a: 15; Baerman, Brown, & Corbett 2005: 216). Moreover, some prepositions like *v* ‘in(to)’ force nominative/accusative marking, even with animate entities (Corbett 2012: 210-213). Cf. *idti v letčik-i* [go into pilots-NOM/ACC.PL] ‘become a pilot’.

Table 272. Declension paradigm in Russian.

	Masculine		Feminine		Neuter	
	Animate	Inanimate	Animate	Inanimate	Animate	Inanimate
	‘this student’	‘oak’	‘sister’	‘school’	‘monster’	‘wine’
Sg						
Nom	<i>ètot stu- dent</i>	<i>ètot dub</i>	<i>èta sestra</i>	<i>èta škola</i>	<i>èto čudovišče</i>	<i>èto vino</i>
Acc	<i>ètogo stu- denta</i>	<i>ètot dub</i>	<i>ètu sestru</i>	<i>ètu školu</i>	<i>èto čudovišče</i>	<i>èto vino</i>
Gen	<i>ètogo stu- denta</i>	<i>ètogo duba</i>	<i>ètoj sestry</i>	<i>ètoj školy</i>	<i>ètogo čudovišča</i>	<i>ètogo vina</i>
Dat	<i>ètomu stu- dentu</i>	<i>ètomu dubu</i>	<i>ètoj sestře</i>	<i>ètoj škole</i>	<i>ètomu čudovišču</i>	<i>ètomu vinu</i>
Inst	<i>ètim stu- dentom</i>	<i>ètim dubom</i>	<i>ètoj sestroj</i>	<i>ètoj školoj</i>	<i>ètim čudoviščem</i>	<i>ètim vinom</i>
Loc	<i>ètom stu- dente</i>	<i>ètom dube</i>	<i>ètoj sestře</i>	<i>ètoj škole</i>	<i>ètom čudovišče</i>	<i>ètom vine</i>
Pl						
Nom	<i>èti stu- denty</i>	<i>èti duby</i>	<i>èti sestry</i>	<i>èti školy</i>	<i>èti čudovišča</i>	<i>èti vina</i>
Acc	<i>ètix stu- dentov</i>	<i>èti duby</i>	<i>ètix sester</i>	<i>èti školy</i>	<i>ètix čudovišč</i>	<i>èti vina</i>
Gen	<i>ètix stu- dentov</i>	<i>ètix dubov</i>	<i>ètix sester</i>	<i>ètix škol</i>	<i>ètix čudovišč</i>	<i>ètix vin</i>
Dat	<i>ètim stu- dentam</i>	<i>ètim dubiam</i>	<i>ètim sestram</i>	<i>ètim školam</i>	<i>ètim čudoviščam</i>	<i>ètim vinam</i>
Inst	<i>ètimi stu- dentami</i>	<i>ètimi dubami</i>	<i>ètimi sestrami</i>	<i>ètimi školami</i>	<i>ètimi čudoviščami</i>	<i>ètimi vinami</i>
Loc	<i>ètix stu- dentax</i>	<i>ètix dubax</i>	<i>ètix estrax</i>	<i>ètix školax</i>	<i>ètix čudoviščax</i>	<i>ètix vinax</i>

I have summarized the possible patterns in Figure 92.

**Figure 92.** Accusative/genitive syncretism for animate nouns in Slavic languages.

		Sg	Pl	Du
Czech, Slovene, Serbo-Croatian	Masculine	+	-	-
	Feminine	-	-	-
	Neuter	-	-	-
Polish, Slovak, Dialectal Ukrainian, Belarusian	Masculine	+	+	-
	Feminine	-	-	-
	Neuter	-	-	-
Lower Sorbian	Masculine	+	+	(+) <sup>174</sup>
	Feminine	-	-	-
	Neuter	-	-	-
Upper Sorbian	Masculine	+	+ <sup>175</sup>	+ <sup>176</sup>
	Feminine	-	-	-
	Neuter	-	-	-
Russian, literary Belarusian, Dialectal Ukrainian	Masculine	+	+	-
	Feminine	-	+	-
	Neuter	-	+	-

The animacy-based nominative/accusative vs. accusative/genitive syncretism can be found in other Indo-European languages outside the Slavic branch. In Latvian some feminine nouns show an accusative/genitive syncretism, provided they are animate (Igartua 2005: 504). In Eastern Armenian the syncretism is restricted to nouns denoting persons and, in some cases, animals, provided they are definite (Igartua 2005: 504). Determination is also compulsory for an accusative/genitive syncretism among animates in Ossetian.

<sup>174</sup> Restricted to numeral structures and adpositions.

<sup>175</sup> Restricted to humans.

<sup>176</sup> Restricted to humans.

### 4.2.3. *Partial syncretisms*

As we have already seen with the Slavic languages, syncretism patterns may not be the same for all the paradigms, or may show variation depending on the agreement targets. Some examples will be discussed in this section.

In some cases animacy-based syncretism is restricted just to nouns, and not to other targets of case agreement. The paradigm of Luiseño in Table 273 shows that in this language only the nouns show this split, as the overt accusative marker must always be used with adjectives, disambiguating the syncretism (Baerman, Brown, & Corbett 2005: 56).

**Table 273.** Case-syncretisms in Luiseño.

	Animate 'bad man'	Inanimate 'bad grass'
Nom	<i>jaʔáʃ alaxwíʃ</i>	<i>šamot alaxwíʃ</i>
Acc	<i>jaʔátʃi alaxwíʃi</i>	<i>šamot alaxwíʃi</i>

In German the masculine declension has a subclass called weak declension, with only animate nouns. Inanimate nouns formerly belonging to this subclass have been reanalyzed and included in other classes (Ortmann 1998: 76-77). Both declensions have been provided in Table 274. Recall that in the weak declension, that including only animates, apart from the syncretisms already existing in the strong declension, more syncretisms are added, as all the cases are syncretic except the nominative singular.

**Table 274.** Masculine strong and weak declension endings in German.

	Strong declension		Weak declension	
	Sg	Pl	Sg	Pl
Nom	<i>-∅</i>	<i>-e</i>	<i>-∅</i>	<i>-en</i>
Acc	<i>-∅</i>	<i>-e</i>	<i>-en</i>	<i>-en</i>
Dat	<i>-(e)</i>	<i>-en</i>	<i>-en</i>	<i>-en</i>
Gen	<i>-es</i>	<i>-e</i>	<i>-en</i>	<i>-en</i>

However, the paradigm of determiners is the same in both declensions and thus, not animacy dependent, as shown in Table 276.

**Table 275.** Masculine strong and weak declension in determiners of German.

	Strong declension		Weak declension	
	Sg	Pl	Sg	Pl
Nom	<i>der</i>	<i>die</i>	<i>der</i>	<i>die</i>
Acc	<i>den</i>	<i>die</i>	<i>den</i>	<i>die</i>
Dat	<i>dem</i>	<i>den</i>	<i>dem</i>	<i>den</i>
Gen	<i>des</i>	<i>der</i>	<i>des</i>	<i>der</i>

Thus, if we cross the data of determiners and nouns, the only difference between both declensions is that the weak one has an accusative singular form not syncretic with the nominative, but syncretic with the dative plural.

**Table 276.** Two examples comparing the strong and weak declensions in German.

Strong declension		Weak declension	
<i>Tisch</i> ‘table’		<i>Junge</i> ‘boy’	
Sg	Pl	Sg	Pl
<i>der Tisch</i>	<i>die Tische</i>	<i>der Junge</i>	<i>die Jungen</i>
<i>den Tisch</i>	<i>die Tische</i>	<i>den Jungen</i>	<i>die Jungen</i>
<i>dem Tisch(e)</i>	<i>den Tischen</i>	<i>dem Jungen</i>	<i>den Jungen</i>
<i>des Tisches</i>	<i>der Tische</i>	<i>des Jungen</i>	<i>der Jungen</i>

## 5. SUMMARY AND CONCLUSIONS TO CHAPTER V

### 5.1. Gender

Animacy is involved in gender, both as a semantic feature (*AnimF*) and as a condition (*AnimC*). It can be a significant semantic feature in gender assignment rules (§ 1.1), or it may condition the values of non-semantic gender systems as well (§ 1.2). Moreover, the animacy split can be restricted to some values in a target, and not to the whole paradigm (§ 1.3).

When gender assignment is semantic, animacy can either be the only important semantic feature for gender assignment, or coexist with other semantic features. This coexistence,



however, can also take place with non-semantic factors, either in the same system (mixed systems) (§ 1.1.2) or in different targets without mixing (combined systems) (§ 1.1.3).

Semantic gender systems include animacy at least as one semantic feature for gender assignment. There are many examples all over the world in which the only gender split is just that of animate/inanimate or human/nonhuman (§ 1.1.1.1). Systems in which the division is just that of human/animate/inanimate are more difficult to find, although I have found an instance in Zande.

Often these semantic systems employ additional features for gender assignment other than that of animacy (§ 1.1.1.2). Among these, it is common to have a canonical gender for humans and/or animates in which all or most of them are included. Animacy is, definitely, one of the most consistent and definable semantic features affecting gender assignment. Among the remaining semantic features involved, we can find linear measures, trees/plants/vegetables (very often), which are rarely treated as animates, shapes (long, round, and so on) or states (liquid, and so forth). Deities, mythological beings, and heavenly entities are treated in an irregular way: either together with humans (also taking a sex, when this is available in the language), or in a separate gender. Sex is a common semantic feature that usually, though not always, appears as a subdivision of humans and/or animates. There is an interesting type of language in which one of the sexes also includes inanimates. I have argued that in these cases it is more desirable not to talk about a sex-based masculine/feminine split, it being more accurate to define it as a masculine or feminine/everything else system. Providing evidence from Zapotecan languages, I have shown that humans or animates may have subdivisions other than sex-based ones, such as age, formality, civil status, and so on. After giving some examples of big semantic gender systems including artifacts, fauna, functions, and so on, I have provided some interesting examples of sex-based systems that employ different semantic criteria for gender assignment: biological for animates, and other such as importance or shape for inanimates. I have argued that, at least for some cases, it would be better accepting that these features such as importance or shape are also the only actually significant ones for animate entities to be assigned to a gender, although this would imply that animacy has nothing to do with gender assignment in these, and thus, that labels such as masculine or feminine are not appropriate.

I have shown that very often, even the most purely semantic-based systems are problematic when it comes to explaining the belonging of some entities to such a gender (§ 1.1.1.3). We have seen that each gender includes some canonical entities, but also other

entities that do not pertain to this canonical group. Moreover, canonical entities do not always belong to their canonical gender. It is difficult to explain the factors that affect these transfers. Following Lakoff's (1987) approach, we have seen that entities may belong to a gender just because they share one or some properties with the canonical entities within this gender. Moreover, under the inaccurate label of "cultural," I have included factors such as experience, imagination, beliefs, cultural background, power, importance for the community, ability for motion, empathy, and so on, which may be the reason for an entity to be included in a gender to which it should not belong to, following pure semantic criteria. As a consequence of this cultural background, dead bodies or body parts can be animate in some languages or inanimate in others, as happens with deities, spirits, and heavenly entities, but also with fruits, objects of different shapes, and functions or natural phenomena. Likewise, some important or big animals can be promoted to the same gender of human beings, and children can be demoted from the human gender. Some entities, in languages like Archi for instance, can agree in different genders depending on sex or number and can also change their meaning depending on the gender marker. Pragmatic factors like deprecatoriness or ameliorativeness, showing respect or disrespect, and augmentation or diminution may also change the gender of an entity. Evidence of diachronic evolution shows that entities can change their already semantic gender toward a more animacy-based one, even though the reasons for that are not always clear.

Some languages with semantically assigned genders have different systems in different targets, one of them being clearer from the point of view of animacy (§ 1.1.1.4). Akan, for instance, has a semantic classifier system for some targets, but a human/nonhuman pattern for numerals. The paradigm in Gagadu shows that having two animate/inanimate macro-genders, different targets may show different subdivisions or syncretisms, resulting in different gender systems for each target. And Burmeso shows that a sex-based gender system and a bigger one can interact in different targets of the same language, and how an entity may belong to a different gender depending on the agreement target.

Systems mixing both semantic and non-semantic criteria have been studied in § 1.1.2. Apart from the abovementioned semantic features, others such as phonology, morphology, syntax, distance, stress, number, grammatical category, the type of nominal, and being a loanword are important for an entity to be assigned to a gender. In some cases, entities fit both semantic and formal aspects to belong to a given gender, but animate or human entities are, precisely, those that can more often be assigned to a gender (that for animates) following semantic criteria, even if they break the formal criteria required to belong to it. In

mixed systems, it is common for animates to take a gender on the basis of biological features, whereas inanimates follow non-semantic criteria. This is also true for systems just based on sex distinctions.

When semantic and non-semantic criteria are ‘combined’, they do not affect the same target within a language (§ 1.1.3). Some of the targets follow formal criteria, and others, semantic ones. Apparently, there is no crosslinguistic rule that defines which targets use a semantic criteria and which use a formal one more often: The split may take place between predicative and attributive agreement, or between pronouns, articles, and verbal agreement markers vs. adjectives and numerals, determiners vs. pronouns, and so on. The example of Michif shows that combining systems may arise due to language contact, and the examples of the Niger-Congo or Mba languages support the idea of an evolution from one system to another, by having either semantic or non-semantic genders in different targets such as verbs vs. adjectives or elements in the NP vs. those outside it. In the Bantu family there are cases in which the classifiers in the NP follow a (mainly) non-semantic pattern, and gender markers in other targets are more animacy-based.

In § 1.1.4 I have addressed some diachronic phenomena of languages tending toward a more animacy-based gender system. Some already semantic systems have become clearer, by avoiding cultural interferences as in Dyrbal, or by splitting animates between human beings and animals. In non-semantic systems, some masculine/feminine/neuter gender systems have re-arranged the entities to include all the inanimate nouns in the neuter, and the animate ones in either the masculine or feminine gender. In some Bantu languages there has been a change from a big gender system not purely based on semantic criteria toward a system, either in the noun classifiers, in the gender markers in other targets, or in both, in which animates have proper markers, or toward a system in which the only distinction is that of animate/inanimate.

So far I have shown how animacy can appear as a semantic feature (AnimF), together with other semantic features or non-semantic factors, in the construction of the gender system in a language. Besides, animacy can operate as a condition (AnimC) for gender agreement (§ 1.2), even in systems in which gender is not based on animacy or on other semantic features.

Animacy can, for instance, control the appearance of gender in an overt way, whatever the value of this gender and the system behind it. I have provided instances in which gender, being sex-based, is only overtly marked with animate referents. The case of Abui is

significant since animacy operates both as a semantic feature and as a condition. Gender is overtly marked only in the objects when the verb can have both animate and inanimate objects, but moreover, the gender distinction is precisely that of animate/inanimate. In Swahili overt gender agreement on the verb is dependent on animacy, but animacy relies, in turn, on definiteness. In many examples the overt marking of the gender feature rests on the overt realization of a bound pronoun that agrees in gender, but also in other features. On the other hand, there are some scarce but scattered examples of animacy controlling overt gender marking, this marker being just an animacy marker, and not a pronoun. Examples have been provided from the Akan, Dutch, and Chinantecan languages.

Another group in which animacy operates as a condition is constituted by examples with non-semantic gender systems in which animacy determines the gender value (§ 1.2.2). In two of the three examples animacy also conditions overt gender (and number) marking as an epiphenomenon, but the important point is that the gender-value assigned is not animacy-based. The two examples provided are mirror examples, since animacy operates in an inverse way.

Among the phenomena conditioned by animacy in non-semantic gender systems is that of conflict resolutions in situations in which entities belonging to different genders want to agree in the same target (§ 1.2.3). In these cases semantic (and biological) animacy decides which controller determines agreement. In Ojibwa there is an animate/inanimate gender system, although biological animacy does not always work. However, for conflict resolution, biological animacy conditions which agreement must be employed. In the case of Polish and Romanian, sex operates together with animacy for this purpose. In bigger gender systems with both animates and inanimates scattered in different genders, animates tend to agree in the canonical gender for animates or males, and inanimates in the canonical one for inanimates, which are not the genders the entities belong to. As expected, usually the biologically animate agreement imposes the agreement on the inanimate form. However, in many languages an alternative construction avoiding the conflict is preferred or is allowed instead of the agreement imposed by the animate controller: the coordination of full sentences and the use of modals or comitatives are the most common, or employing a syntactic agreement with the closer controller. There are cases in Bantu languages, however, in which it is the inanimate controller that overrides the animate one and imposes its agreement, not in its own gender, but in the canonical for inanimates. Moreover, when the conflict is not between a human and a nonhuman but between an animal and an inanimate,

it is the animal that imposes the agreement, so a human > animate > inanimate hierarchy can be traced in some Bantu languages.

The last main section related to gender (§ 1.3) deals with cases in which animacy is a semantic feature important for the configuration of the gender system in a language, but when the animacy-based split is dependent on the value of a feature, that is to say, when the animate/inanimate or human/nonhuman distinction is restricted to a value or values of a feature, and does not affect the whole paradigm. Most of the data collected are relative to number (§ 1.3.1), and show that the plural is more prone to show an animacy split than other number values. I have provided crosslinguistic data to support this statement, by showing cases in which the animacy split takes place in the plural and no gender split is made in the remaining number-values. Even in systems in which there are more values than those of singular and plural, the plural shows the animacy split more often than other numbers. Moreover, I have seen that when both the singular and plural show different genders and splits among them, it is the plural that tends to make an animacy distinction in a clearer way than the singular. Among these, we have cases in which the animacy split can only be traced in the plural, and cases in which, having an animate/inanimate distinction identifiable both in the singular and the plural, it is the latter that shows it in a more transparent way. The first group includes instances in which in the singular there is a masculine or feminine/everything else system, and the plural has an animate/inanimate one, or bigger systems in which the syncretisms in the singular do not allow making an animacy distinction that can be traced in the plural. Likewise in big gender systems affected by many cultural factors, the assignment in the plural tends to be more animacy-sensitive from a biological point of view. The second group, as stated before, includes those examples in which the animacy split can be seen in both number values, but it is clearer in the plural. This happens, for instance, when in the animate singular there are more splits apart from that of animacy (sex, and/or others) that are absent in the plural, as in Godié. I have likewise given examples of big gender systems in the singular that are reduced to a pure animacy split in the plural. The case of Proto-East-Caucasian is striking, since the form used to mark animates in the plural is present also in the singular, but it is not the canonical form for animates. In § 1.3.1.3 we have seen that there are also diachronic examples of systems in which the animacy distinction has been either first developed or finally lost in the plural rather than in the singular, the evolution being, as in languages like Andi, traceable in the dialectal variation. Finally, I have provided exceptions to the rule of plural having a more straightforward animacy-based split than other values (§ 1.3.1.4). Those exceptions can be

found in different categories, and in different languages all over the world, but I have shown that some examples that seem to be also an exception at first sight, are not so. Among these exceptions we have seen some interesting data in Ju|'hoan that show that animacy operates as a condition for gender and number in two morphemes employed both with animates and inanimates, since these morphemes encode number with inanimates and gender with animates.

In addition, I have provided examples of animacy splits dependent on a person-value (§ 1.3.2). I have explained that animacy splits are obviously restricted to the third person, since the other two are always animate, but I have also given examples in which the person value of an entity, not being 3rd person, can determine the animacy splits of another entity. Besides, there are examples of animacy splits dependent on a gender value such as a sex (§ 1.3.3), in which animacy is actually a subgender, or dependent on a tense value (§ 1.3.4) such as the present one, the affectedness, or, put more clearly, the unaffectedness of an entity (§ 1.3.5), the specificity (§ 1.3.6), specific entities being those which tend to have an animacy split more than unspecific ones, or even distance (§ 1.3.7), as the animacy is more frequently specified when the entity is not in sight of the speaker. Finally, we have seen that in Sentani an animacy distinction can be made just if the entity we are talking about really exists (§ 1.3.8).

## 5.2. Number

Number is a feature that can appear either in the controller NP (§ 2.1), in several agreement targets (§ 2.1.2), or in both, and animacy may condition this feature in several ways. Among the controllers whose marking can be affected by animacy (§ 2.1.1), we find common nouns, proper nouns, and pronouns. However, we have seen that animacy may affect number in a different way within a language, depending on the type of controller, pronouns being more prone to show number distinctions.

There are many examples all over the world in which number is marked on the controller depending on its animacy § 2.1.2. Thus, I have found instances of languages that put the cut-off point for overt number marking at a different point along a human > animate > inanimate hierarchy (§ 2.1.2.1). The higher up the scale, the more overt marking we encounter. Thus, some languages mark only human beings, others include human beings and higher animates, while there are also languages with an animate/inanimate split, and languages that include some inanimates together with animates, especially if they are somehow related.

However, there are some special cases (§ 2.1.2.2) that follow this rule, but with some additional requirements. In Southern Tiwa overt marking is associated with the incorporation of the object in the verb, in Akan a proper plural marker has been developed because of the decay of a classifier system that encoded number, and in Wambaya overt marking is animacy-dependent, but among animates there is a further human/nonhuman subdivision instantiated by the use of alternative plural forms; therefore, animacy operates both as a condition (AnimC) and as a semantic feature (AnimF).

Apart from animacy, other conditions may apply for overt number marking in the controller (§ 2.1.3). Overt marking can be optional in enumerations, or when a modifier such as a number or quantifier modifies the controller, as in Bengali. In Kâte overt marking is restricted to possessed NPs, and in Plains Cree to obviation, since only proximate animate nouns have singular and plural forms.

I have identified ten different targets in which animacy may condition number agreement (§ 2.2). (Bound) pronouns (§ 2.2.1), whatever the category to which they are attached might be, are often targets of animacy-conditioned number marking. Human beings and/or animates keep a number distinction that is lacking for inanimates, either because inanimates are syncretic in the singular and the plural, or because inanimates take a default form, which is usually the singular form for animates. We have seen that some free pronouns must be considered targets and not controllers for number marking, in languages like Guguyimidjir, Jamamadí, or Kalam.

Determiners (§ 2.2.2) are also targets of number agreement and in Omaha-Ponca, for instance, articles agree in different genders, but only animates distinguish number. Examples of indefinites and demonstratives have also been provided.

Number agreement in a noun or NP (§ 2.2.3) may be also conditioned by animacy, for instance, when this feature regulates the overt appearance of a bound pronoun agreeing in number, attached to this NP.

Among adjectives (§ 2.2.4), too, number is more often marked with an animate controller. In Georgian this is restricted to predicative adjectives. It would be interesting to carry out more research to know whether there are differences between predicative and attributive adjectives in this regard. Numerals (§ 2.2.5) may also take a plural marker when the controller is not mentioned, as in Hupdë.

Several languages do not distinguish number in the verb precisely when the controller is inanimate, either in a flexive way or by the addition of bound pronouns (§ 2.2.6). Either the

animate subject or the object (or both) can be the controllers of this agreement, even though the split is more common with the latter, due to the clearer tendency for subjects to always be animate. I have also mentioned the example of some verbs in Me'phaa, which are completely syncretic, except for the animate plural form. In Plains Cree, inanimate objects do not trigger verbal number marking, since with these, intransitive verbal morphology is employed. We have also seen that specificity, definiteness, presupposedness, salience, or being a new/old referent may also condition number agreement in the verb.

The absence of number distinction for inanimates can also be found in some gender markers and classifiers (§ 2.2.7), concessive and consecutive conjunctions (§ 2.2.8), in some evidentiality markers in which, surprisingly, inanimate forms not distinguishing number are syncretic with the forms for 1st and 2nd person (§ 2.2.9), and in some catalyzers that take some bound pronouns agreeing in number just with animate controllers (§ 2.2.10).

Animacy-depending optionality (§ 2.3) in number distinction is very common, either for marking in the controllers, or for agreement in the targets. This optionality may depend just on animacy (§ 2.3.1). In these cases, there are languages in which the split is dual, optionality being one of the two options, but in some languages, the human > animate > inanimate path can be completely instantiated. Usually optionality is present among animates, whereas human beings are compulsorily number-marked, and inanimates are not. Sometimes animates show further splits, like that between higher and lower animates. In the case of Manam, optionality has to do with the use of the dual and paucal, and not with number marking itself. The case of Persian shows an evolution toward optionality among animates.

Optionality may depend on further elements apart from animacy (§ 2.3.2). I have provided examples of specificity, countability, agentivity, individuation, and topicality, which are typical features of animate entities, but other external factors such as the type of nominal, case (in Chukchi), word order, the type of numeral (in Slavonic languages), the distance between the controller and the target, or the technique employed for number marking have been identified as significant. When the controller is not semantically plural, but its plurality comes from being the conjunction of two or more singular NPs (§ 2.3.3), languages tend to have conflicts for number agreement, which in some cases are resolved by animacy. Animate conjoined NPs trigger semantic number agreement more often. However, in most cases, this is just a tendency, especially in the middle of the Animacy Hierarchy: in languages such as Afar, agreement is forbidden for inanimates, it is uncertain with animates, and optional with human beings. Corpus-based studies from German, Medieval Spanish, and Russian show that word order and concreteness exert an influence in semantic number



agreement as well: A subject-predicate order together with animacy makes semantic agreement rather more probable. Although most of the examples in this section referred to verbal agreement, a case of an attributive modifier in Russian has been provided.

In some languages, animacy-conditioned number realizations do not follow the same rules for the controllers and the targets (§ 2.4). Cases in which there is number agreement reflected in noun modifiers but is not marked in the noun have been provided, but there are also cases in which an Animacy Hierarchy can be traced, agreement being more common in the target than marking in the controller, especially in the middle of the hierarchy. These follow Corbett's prediction, which says that agreement will be more extended than marking in the controller. However, a couple of counterexamples have also been provided. There should be further research on whether the difference between external or internal agreement affects Corbett's (2000: 67) statement, since both counterexamples take place with targets in internal agreement (noun modifiers).

In § 2.5 I have studied cases in which number is always marked, but the values animates and inanimates distinguish differ. In general, forms other than the plural and the singular, like the dual, are more common with entities in a high point of the Animacy Hierarchy. In some cases inanimates do not have a dual form, or they express the dual by the combination of plural markers with singular agreement, or they have a plural form restricted only to a set of the paradigm, whereas animates have it for all forms, as in Koryak. The case of Tuyuca is special, since both animates and inanimates distinguish two forms. However, animates have a singular vs. everything else system, and inanimates have a singular=dual=paucal vs. plural one. In addition, I have argued that the full vs. reduced agreement of Inari Saami is a matter of animacy that actually is only noticeable by the dual form for animates, and absent for inanimates, which use the plural. Borana-Arsi-Guji Oromo is the only language I have found in which the overt number marking with animates (humans, in this case) is made by marking overtly the singular; not the plural.

There are some examples of inverse number marking conditioned by animacy (§ 2.6). The same marker may be singular or plural depending on the animacy of its controller. The two examples provided have a specular situation, since in Jemez animate singulars and inanimate plurals are marked, whereas in Kiowa the situation is just the opposite.

Number always being marked, in § 2.7 I have provided some examples in which defining the controller of this number agreement depends on animacy. It usually has to do with the animacy of the direct object, which attracts number agreement from others NPs in the

sentence. In the case of Nanti, we have seen that NPs obligatorily possessed by humans agree in the first person plural, since the owner is always humanity, including the speaker.

Section § 2.8 deals with situations in which the number value of a morpheme is blurred because of syncretisms. In the examples studied, a form with a singular or plural value is syncretic with that in another gender, which has the opposite number value, or has no number. Commonly, the forms lack number with inanimate genders or with genders lower in the Animacy Hierarchy, and take a number value with more animate genders. The Caucasian languages studied show, on the one hand, that plural markers higher in the Animacy Hierarchy are singular markers for genders lower in the hierarchy, with some exceptions, and, on the other hand, that there is a relation between the plural marker for humans and the singular for animates, as well as between the plural marker of animates and the singular of inanimates. I have suggested for these Caucasian languages that the plurals may have been materialized first among humans by employing the forms of inanimates or less animate entities, which did not distinguish number, even if study of the dialects of Andi suggests a spreading of more animate markers to less animate genders to encode the plural.

In the last section (§ 2.9) I have included some predictions made by different authors that can be summarized in two main statements: A) the existence of an Animacy Hierarchy for number marking in which entities higher in the hierarchy mark number and have more number distinctions than entities lower in the hierarchy, and B) that number agreement in the targets is more consistent than number marking in the controllers. In this section I have studied some cases that seem to break the statements, but we have seen that most of them are not clear counterexamples, or that they are partial counterexamples.

### 5.3. Person

Person is often cumulated with other features, especially with number and gender. Thus, the assumptions made in their respective chapters apply also for the feature of person in many cases and thus, I have arranged this subchapter in a different way, to avoid repeating the same information.

Animacy may condition the overt realization of the feature of person (§ 3.1), usually by the presence or absence of a bound pronoun agreeing with it. The controller of this overt agreement is often the direct object (§ 3.1.1), but can also be the subject (§ 3.1.2) or other NP in the sentence (§ 3.1.3).

I have provided examples of animate direct objects as a controller (§ 3.1.1) from different linguistic families and areas. When the direct object is animate, it triggers person agreement in the verb. This may be a way of avoiding confusions in the identification of the object and the subject, both being animate. Beyond the verbal morphology, I have mentioned the case of Kalam and Waorani, which encode person agreement in elements that follow the object NP.

Subjects that trigger person agreement depending on their animacy are less common, since subjects are prototypically animate (§ 3.1.2). Most of the examples come from intransitive sentences, since in transitive ones the object is more prone to control the agreement. In the case of Nkami, attaching the bound pronoun is optional and requires the controller to be omitted. In Me'phaa, not all the verbs allow the animate subject to agree. The example of a pronoun agreeing with the animate subject outside the verbal morphology comes from Guguyimidjir.

Other elements whose person agreement may be controlled by animacy (§ 3.1.3) are goals. Furthermore, inside the NP, in Me'phaa, adjectives may agree in person and number with the noun.

Animate entities usually trigger person agreement more often than inanimates. Ngalkan provides the only exception (§ 3.1.4), in which the third person animate pronoun is zero-marked.

In the cases in which person is always marked, animacy may condition whether the person-value is assigned following semantic criteria, or arbitrarily (§ 3.2). Inanimate objects may trigger a default 1st person agreement, instead of the semantic 3rd person. In Warrgamay, the default person is the 3rd one, semantic agreement being optional, but only for humans. The case of bound pronouns in Lealao Chinantec is interesting, since the animacy of an NP conditions distinguishing person for another NP in the sentence. The case of evidentials in Tuyuca is also interesting, as 3rd person animate entities distinguish person, because inanimates are syncretic with 1st and 2nd persons, which are always animate. Finally, the free personal emphatic pronouns in Usila Chinantec are an exception, because 3rd person nonhumans have their own form, and the 3rd person human form is syncretic with 1st person, blurring person distinction.

In § 3.3 I have shown how animacy also conditions which NP in a sentence may be the controller of person agreement in the verb. In the case of Nanti, inalienable possessed NPs take a bound pronoun agreeing in 1st person if the possessor is human, and in 3rd person

if not. I have contended that this has to do with the identification of this possessor, since elements possessed inalienably by humans include all humans, and hence, also the speaker, whereas nonhuman possessors can never include the speaker, and agree in the 3rd person.

In § 3.4 I have identified other elements that, together with animacy, may condition the realization of the feature of person. In some languages specificity overrides animacy, but salience, presupposedness, and topicality may also be significant.

Obviation has been included inside the section dedicated to person (§ 3.5), and some reasons for that have been provided. In subsection § 3.5.1 I have provided some instances in which the obviation distinction is restricted to animates, and, in some cases, just to a part of animates, namely definite singular NPs. Subsection § 3.5.2 includes an example in which obviation is not just a matter of animacy, unless both NPs are 3rd person. The obviative argument shows person agreement only optionally, whereas the direct one must agree in the verb. Therefore, when animacy conditions which argument must be proximate and which one obviative, it is actually determining which NP will show person agreement compulsorily.

#### 5.4. Case

I have described three main viewpoints from which case has been addressed in typological works: a semantic one, which deals with the case a particular semantic role must take, a syntactic/functional one, which describes the case-marker an NP must take in the sentence depending on its syntactic function, and a morphological one, which focuses on the forms different cases take in a paradigm, and the syncretisms between them, regardless of the semantic roles and syntactic functions these cases may encode. The approach chosen to account for a given phenomenon is largely conditioned by the tradition of grammarians in such a language or family. Consequently, although the scope of this dissertation is mainly morphological, choosing just this point of view would be too restrictive to give an account of crosslinguistic phenomena worldwide. Therefore, apart from this morphological approach, the syntactic/functional has also been included, as it has implications in morphology. The semantic point of view has not been studied directly, although in some cases it appears unavoidably attached to the syntactic/functional approach.

Thus, the syntactic/functional viewpoint has been addressed in § 4.1. Regarding the subject (§ 4.1.1), we have seen that overt case marking can be affected by animacy, as there are examples in which only animate subjects are overtly marked with cases such as the nominative or ergative. Subjects may also be marked with the direct or oblique case de-

pending on their animacy. Moreover, I have shown that in addition to animacy, other factors such as tense/aspect, the degree of impingement on an undergoer, the information structure (topic or focus), and the semantics of the verb may also condition case marking of subjects. Sometimes, the case value chosen for the subject depends on whether it is animate or not, since in some languages the ergative or nominative case is restricted to animate subjects, marking the inanimate ones in other cases like the instrumental or oblique. Encoding the subject in a noncore case triggers, in some instances, the detransitivization or passivization of the sentence.

The direct object (§ 4.1.2) is one of the most studied categories from the viewpoint of animacy, often under the label of Differential Object Marking or DOM. I have argued against the use of such a label. Then, I have provided crosslinguistic examples of languages that only encode overtly human or animate objects, and explained that cases of split ergativity in which a human/animate object is overtly encoded in the accusative case and non-human/inanimate ones in the absolutive can also be analyzed from the viewpoint of overt marking, since the accusative tends to have a marker, whereas the nominative tends to be crosslinguistically a morphological zero. Specificity and definiteness are crucial factors for overt marking in many languages, and often override animacy. There are cases, however, in which animate unspecific objects show optionality for overt marking. Topicality is also important in a language like Halh Mongolian, aspect in Palauan, and individuation in Maltese.

As we have seen, the marker for the animate direct object can be also the marker for other syntactic functions, like the indirect object, which is prototypically animate. Conversely, the inanimate object may be encoded like the subject. The example of Yidiny shows that inanimate objects can also be encoded in oblique cases like the locative. In Managba, however, it is multifunctional: the animate direct object marker is also the marker for indirect objects in ditransitives, but also a general locative, a marker for subjects that are experiencers, a topicalizer, and an indefinite determiner.

When there is some kind of optionality for overt case marking, it decreases the further we descend down the Animacy Hierarchy.

Talking about indirect objects in § 4.1.3, I have discussed from a theoretical viewpoint the difficulties in seeking the role of animacy in these, as it is not clear whether the use of different markers depends on animacy, or encode actually different semantic roles, which are defined by the semantic properties of the noun, but also by those of the verb. Taking

one or another viewpoint depends on the data source; therefore, I have taken into account data that have been analyzed from the point of view of animacy, as this fits better with the scope of this work.

The indirect object is prototypically animate. Consequently, animate indirect objects are often less marked than inanimate ones, which constitutes one of the scarce examples in which animate forms are less marked than inanimate ones. Moreover, we have seen that the Dative Shift, a phenomenon by which an animate indirect object is encoded as a direct object, can be optionally used in languages further from English.

The use of different cases conditioned by animacy is also common in the case of indirect objects, and locative cases appear often bound to inanimate indirect objects.

In section § 4.1.4 I have shown that in some languages animacy may condition the marking of both the direct and the indirect object. In Tanimuca-Retuarã the objects are only overtly marked if they are human, and it seems that the marker for the subjects is also the same, which is a special system. Moreover, there are languages in which animacy conditions overt marking for the direct object, but differential value marking for the indirect one. Finally, in § 4.1.5 I have provided an example of a language in which all the core functions, the subject, and both objects, are affected by animacy, as only animates are case-marked.

Among the noncore cases in § 4.1.6, we have seen examples of noncore functions marked with the direct case if animate and in the oblique if not, examples in which the instrumentals can only be inanimate and, therefore, animate instruments require other constructions or cases, and examples in which the locational cases are restricted to inanimates whereas animates require a different construction or additional morphology.

Section § 4.1.7 includes those cases in which the relative animacy of two NPs in the sentence is important for case marking in one of them or both. There are languages in which the relative animacy of the subject and the direct object has to be considered. Usually, the animacy of the object determines the overt marking of the subject. Either the subject is encoded if the object is animate, or the marker can be dropped if the object is not human. Determination, word order, and the type of nominal is also important in some languages. In Fore, when both NPs have the same animacy, marking the subject is optional. There are less examples in which the relative animacy of the subject and object affects the marking of the latter. This happens in Marangis, which encodes the direct object like the indirect object when the subject is also animate. In languages like Yagaria, overt mark-

ing affects both the subject and the object, and takes place only if they are equal in animacy.

Regarding the relative animacy of the direct and indirect objects, commonly, if the indirect object is animate, the direct one remains unmarked, but there are cases of the opposite as well: animate direct objects that force the indirect object to be more marked. In Yakama, with a human indirect object and a human object, the indirect object is marked. If both are human, either can be marked.

A phenomenon related to the relative animacy of arguments is that of direct/inverse marking in the verb, typical in Algonquian and Athabaskan languages. Usually, when the subject is more animate than the object, direct marking is employed, and vice versa. In these languages, however, the relative animacy is outranked by the type of nominal and the hierarchy of persons. Moreover, some features such as movement may turn into animate an inanimate entity. In a language like Yakama, apart from animacy, empathy and topicality are also important. A phenomenon found in the Australian language Dalabon has been explained as a case of direct/inverse marking, although the source does not employ this terminology. On the other hand, the statistical study made in Movima by Haude (2014: 302) has shown that direct/inverse marking may not be always consistent in terms of animacy, as in the majority of cases in which an animate entity acted upon a human, direct marking was employed. In cases in which both entities have the same animacy, direct marking is preferred, especially if they are high in the Animacy Hierarchy. Finally, an example of Plains Cree has been provided, in which animacy does not determine whether a verb must be marked with the direct or the inverse case, but whether the direct/inverse encoding itself must be used or not, as only when the direct object is animate the verbs triggers direct/inverse morphology. Otherwise, the verb is encoded as an intransitive, with no direct/inverse distinction.

The syntactic/functional approach to the feature of case has been concluded with some remarks on the effects of animacy on case outside the NP (§ 4.1.8). I have shown that the effects of animacy on case can be seen, for instance, in a catalyzer like that of Jaru, but that the grammatical category affected the most is the verb. Apart from phenomena related to direct/inverse marking, we have seen cases in which an inanimate object does not trigger transitive verbal morphology, and also those in which having an inanimate subject entails detransitivization or passivization. The case of Basque has shown how an animate object can be marked with the dative instead of the absolutive and, thus, trigger dative verbal

agreement, whereas Walmajarri is an example of a language in which local cases show verbal agreement when their referent is animate.

The morphological approach (§ 4.2) dealt with declensional paradigms and the syncretisms between different cases. These syncretisms have been studied from the viewpoint of the core cases, namely the ergative and the accusative, which include syncretisms with other core cases like the nominative and the dative, and with noncore ones. The autonomy of the ergative has been addressed in § 4.2.1. There are languages in which it is syncretic with the instrumental, but having an autonomous form if it is animate, as is common in Australian languages. Some of these languages show optionality in the middle part of the Animacy Hierarchy. In some languages there is never an autonomous ergative form, as for animates it is syncretic with a case, and for inanimates, with another one. In Tsakhur, for instance, there is an ergative/nominative vs. an ergative/genitive syncretism. The ergative can also be syncretic with the inessive or the locative case. There are languages that have an ergative/instrumental syncretism for animates and an ergative/locative one for inanimates. In Koryak we can find an instrumental/ergative/locative pattern for animates and an instrumental/ergative for inanimates, with a different form for the locative, which is the same of the instrumental/ergative/locative of animates.

There are more data about the autonomy of the accusative (§ 4.2.2). With inanimates it tends to be syncretic, especially with the nominative, whereas the accusative has an autonomous form for animates. In cases in which the accusative is never autonomous, the animate accusative tends to be syncretic with the dative, but also with a noncore case. This is often the genitive. The accusative/genitive syncretism for animates is typical in the Slavic languages, but can also be found in other surrounding families. In the case of the Slavic languages, syncretism is not extended to the whole paradigm. All the languages show it in the masculine singular, and then it has been extended to other numbers or genders, depending on the language, or just to humans, and not to all animates. In the Slavic languages syncretisms may also be dependent on features such as topicality or definiteness, but also on discursive parameters, as examples from Old Church Slavonic show. Other languages surrounding the Slavic family have the same syncretism in a part of their paradigm, restricted to definites or humans in some cases.

Section § 4.2.3 studies the cases in which the syncretisms do not affect all the paradigms and targets in the same way within a language. Apart from the restrictions affecting Slavic languages, I have provided an example that shows a nominative/accusative syncretism for inanimate nouns, but not for adjectives. In the case of German masculine nouns,



there is a difference between strong and the weak declension. The latter includes only animate nouns and it is syncretic except for the nominative singular. However, determiners do not show such a difference between strong and weak declension. Therefore, if we compare the data of both declensions with the common paradigm for determiners, the only difference between both declensions is that the weak one has an accusative singular form that is not syncretic with the nominative, but with the dative plural.



## VI. CONCLUSIONS AND OPEN ISSUES

This dissertation aimed to be the first monograph devoted exclusively to the effects of animacy in inflectional morphology, and thus, the departure point for further investigation. A descriptive and comparative crosslinguistic typology of animacy effects in morphology affecting inflection (not derivation) has been provided. I have focused on three main aspects: The morphological (and phonological) techniques that are crosslinguistically employed to encode animacy (cf. § III), the grammatical categories that can be affected by animacy (cf. § IV), and, finally, the grammatical features (cf. § V) whose realization is sensitive to animacy-based distinctions. In order to carry out this work, two previous aspects have been addressed: In the introductory chapter (cf. § I) some methodological decisions were made, and a definition of animacy and its behavior was sought in chapter § II.

The main conclusions of the dissertation will be included in this chapter, and I will discuss some open issues for further research in the future, following the abovementioned division. Section § 1 has been devoted to conclusions on methodology, Section § 2 summarizes the main conclusions about the definition of animacy, its behavior, and the tradition of the term, the main conclusions about the techniques for animacy-encoding can be found in section § 3, I have focused on the grammatical categories in section § 4, and on features in section § 5.

### 1. METHODOLOGICAL ASPECTS

This dissertation is a variety study in the sense of Bell (1978): a classification of diversity, which tries to record the biggest amount of patterns possible: not necessarily all its attestations.

These sort of studies require a bigger language corpus than in probabilistic and statistical ones. According to Bell (1978: 146-147) it must include over 100 languages. We have exceeded largely this amount including data from 379 linguistic systems.

The corpus has been a convenience sample in the sense of Whaley (1997). Only positive data have been collected, trying to find as much diversity as possible. Therefore, it must be stated that even if, in theory, the search for these data should have been made blindly among the languages in the world, this is always inevitably conditioned by the knowledge the researcher acquires as he/she progresses in the research. Therefore, the conscious overrepresentation of certain families or areas in the sample has not been a problem, if they were especially rich in variation. This is so, for instance, with regard to the Otomanguean languages, whose variety regarding animacy is especially interesting, but have not been often mentioned in the literature about animacy.

Although such a convenience sample may lead us to the overrepresentation of some languages, families, or areas, some biases in sampling have been considered and controlled when possible, namely bibliographical, genetic, areal, typological, and cultural ones. Thus, the bibliographical resources employed have included as much linguistic variety as possible. For this task, I have used the most recent references when available, published by prestigious linguists and companies. However, in this dissertation I have been able to verify to what extent the bibliographical sources used and their framework inevitably condition the type and amount of data we can obtain, and also their interpretation. Moreover, I have observed that studies devoted to some languages or language families are often closely connected to a specific tradition and framework, which was not always the most interesting for the scope adopted in this work. This has been especially important when studying the feature of case. Not doing any fieldwork implies trusting in what authors state and in the way they do it. Subsequent research should include, perhaps, some fieldwork, additional sources for each language, and more primary sources. On the other hand, focusing mostly on recent bibliographical sources and restricting its amount allows us to increase the amount of data we can handle.

Genetic and areal biases have been avoided by checking the genetic affiliation of each language according to Voegelin & Voegelin (1977), and the areal distribution of the languages mentioned by following Ethnologue. Once again, some areas and families have been overrepresented because of their interest. All the genetic and areal classifications are controversial, even those I have chosen, but these controversies are not crucial for the aim of this dissertation, and solving them is far from my purpose.

Moreover, all sorts of languages have been represented in the sample (Comrie 1989 [1981]: 27-28; Whaley 1997); not only actual languages, but also protolanguages and dead languages. Likewise, creole languages and pidgins, mixed languages, and dialects have been represented; as have languages with different amount of speakers and areas of different sizes, as well as languages of different genetic groups, isolated ones, and languages whose classification is unclear. The large amount of languages in this work include all of them, although, obviously, not in the same quantity. However, there are no instances of non-oral languages such as sign languages, and all the data found belong to natural languages; not to artificial ones. Further investigation could try to balance underrepresented areas or families, as well as types of languages, by specifically researching on them. Obviously, new incorporations would change, clarify, or even defeat some of the generalizations made based on my corpus.

Finally, employing the ISO codes and the SIL labels to name languages has proved necessary and useful for this dissertation, in order to avoid that data from languages with alternative names are considered as pertaining to different languages, even if the labels employed by the SIL may not always be the most appropriate according to linguists and speakers. Choosing the best name for each language is a task that should be undertaken in the future.

## 2. THE CONCEPT OF ANIMACY

### 2.1. The history of animacy

I have shown how the classification of entities in the universe according to their properties, and especially animacy, is part of the culture, beliefs, and philosophy of humanity. Actually, this has been understood in western cultures since at least Plato, but was developed by thinkers in the Middle Ages and Renaissance.

At least since the Middle Ages, animacy has tended to appear as a continuum or hierarchy more than as a pure bipartite split like human vs. nonhuman, or animate vs. inanimate. Thus, we have seen that the relative degree of animacy an entity may have is not purely biological and is highly influenced by cultural, religious, or even circumstantial factors. That means that the amount and type of splits within the hierarchy may change, that entities may be grouped in different ways, and even, that an entity may change its position in the hierarchy circumstantially.

The notion of animacy in linguistics, although employed and mentioned at least since the the times of Classical Greece, was developed in the 19th century, together with typology, by linguists working on African, Caucasian, American, Dravidian, and Slavic languages. Since then, many linguists have applied it to their studies or theorized about it, and some of the contributions, like those by Silverstein, Dixon, Comrie or Croft among others, have often been cited. I have observed, however, that Silverstein's and Dixon's work established a watershed that resulted in subsequent research overlooking previous works, even if some interesting theoretical clues had already been stated in these.

Animacy has been employed in linguistics and especially in typology to account for phenomena related to agentivity (case marking or split ergativity for instance), discourse analysis, topicality, referentiality, number, passivization, and, obviously, gender. Few works have taken animacy as the nucleus from which all the abovementioned elements could be explained together: in general, animacy has been studied inductively to one single language or set of data.

## 2.2. The behavior and nature of animacy

I have shown that animacy can also be more than a clear binary split in languages, as it may appear as a continuum with different splits, arranged sometimes hierarchically. Apart from a biological animacy including humans, animates, and inanimates, other inherent or non-inherent features may also be included in what has been called 'extended' Animacy Hierarchy. We have seen that this extended hierarchy has been represented in three ways: In a linear way (cf. Figure 29), in which a link in the hierarchy precedes the next one, establishing different subhierarchies apart from that of biological animacy independently (cf. Figure 28), or even establishing a hierarchical order between these subhierarchies (cf. Figure 19).

The subhierarchies making up the extended version of the Animacy Hierarchy have not been homogeneous among linguists, as they have often been dependent on the data under study, although some of them have been recursively repeated. A collection of subhierarchies that tend to appear together with biological animacy in the extended version of the hierarchy has been made in this work (cf. Figure 30). I have classified them in three main groups: a) inherent, b) discursive, and c) temporary hierarchies. The first one comprises those hierarchies based on the inherent properties of the entities. Apart from biological animacy, other hierarchies consider further inherent features, often related to humans or animates. Moreover, I have shown that some inherent features are culturally or mythologi-

cally established. Discursive hierarchies include those related to the position of the entity in the discourse, which is not inherent, but circumstantial. The third group includes temporary hierarchies, which are actually based on inherent but transitory features.

Determining which is the element that links all these abovementioned hierarchies, and consequently, defining what the nature of the Animacy Hierarchy is, is still under discussion. Most of the authors consider animacy from an anthropocentric cognitive viewpoint (except for the approaches of Kiparsky and, partially, Cristofaro) in which the 'ego' puts himself at the top of the hierarchy and categorizes the remaining entities according to the empathy he feels toward them: the more similar and closer to the 'ego', the more empathy he will show toward it. This would be the reason for humans to always be in the top positions. As we have seen, the classification of entities is, consequently, conditioned by the information the 'ego' gets from his senses, his knowledge, and cultural background. All the properties, inherent or not, an entity may have, are given transitorily or permanently by the speaker, who is the center of the speech act.

This has led us to a discussion about the universality of animacy. I have argued that animacy seems to be universal, as far as all the human beings show empathy toward the same entities in the same way, and that effects of animacy in linguistics can be found worldwide. However, cultural factors are also important, and there is no agreement among linguists on the elements that make up the hierarchy, which are often dependent on the data or linguistic area under study.

Thus, I have concluded that the egocentric viewpoint of the language is universal, but its realization by means of different hierarchies is not, even if all of them depend on the viewpoint of this 'ego', and therefore, all of them have some recursive and easily crosslinguistically recognizable patterns.

As already mentioned, Animacy Hierarchy tends to be represented in a tripartite way, as a human > animate > inanimate hierarchy, but I have found a few instances in which the three divisions are instantiated at the same time in a language. However, in most of the cases it is bipartite, namely human/nonhuman, or animate/inanimate. Moreover, there are cases in which the tripartite split is not autonomous, and can only be inferred from the combination of a human/nonhuman split affecting a paradigm, with an animate/inanimate one from other paradigm within the same language, usually being animates the entities that share some features with humans and others with inanimates.

Moreover, we have seen that having a bipartite or tripartite split does not imply the existence of a hierarchy. There is not always a formal reason to determine that humans are above animates, or these above inanimates. In most of the cases, these hierarchies are the result of an abstraction made by linguists, based on inter- or intralinguistic comparisons or on statistical results, more than a rule the speaker must have in his/her grammar. Thus, I have contended that the only cases in which animacy appears hierarchically are those in which the speaker must know the relative animacy between two entities to realize a formal distinction, as in some cases of agreement or case marking, and that this must always be binary.

A central point of this dissertation has been the definition of two roles for animacy: as a condition (AnimC) and as a semantic feature (AnimF) (cf. Figure 33). I have shown that in cases in which the only morphological difference between animates and inanimates is, precisely, derived from the encoding of the animate/inanimate distinction, animacy operates just as a semantic feature. On the other hand, animacy acts as a condition when animates and inanimates show differences on the overt realization of a feature (such as number, case, and so on), or on the value this feature must take (plural, accusative, and so forth).

I have shown that even if animacy is universal and part of the grammar of several languages, its appearance as a feature or as a condition, or the cut-off point (animate/inanimate or human/nonhuman) does not affect compulsorily the whole language in the same way, but is specific for each phenomenon. The same language may show examples of animacy both as a feature or as a condition, or cases in which the split is that of human/nonhuman, together with cases showing an animate/inanimate split. Moreover, there are examples that violate Animacy Hierarchy, as those in which humans and inanimates behave in the same way, against animates.

### **2.3. The narrow definition of the concept in a deductive approach**

Most of the typological works that employ animacy as an explanatory tool are inductive. That is why they employ an extended version of the Animacy Hierarchy, in which the subhierarchies implied and the slots of the hierarchy are adapted to the data under study. Therefore, the deductive scope taken in this dissertation is significantly more innovative and unexplored. Nevertheless, not having a single and commonly accepted definition of the Animacy Hierarchy and the links it must include was a problem for such a deductive approach, which pretends to look for data departing from a accurately defined concept of



animacy. Establishing this accurate definition has allowed me to determine which type of data had to be included from the corpus, and which ones, rejected.

Consequently, I have narrowed the definition of animacy to be applied in the dissertation, based on the literature review and the conclusions on the nature and scope of the concept. I have chosen an external definition, not based on formal criteria, as that would be circular: the definition cannot be based on data from languages, and used to seek data in languages. However, since such a purely theoretical definition would be too wide, I have narrowed it by introducing a formal criterion, namely morphology. I have defined this dissertation as a partial typology of animacy effects, but including only phenomena that entail changes (at least) in morphology.

Moreover, as we have shown that the hierarchies that may coexist with that of biological animacy are assorted and may change depending on the data, I have focused just on inherent properties of the entities, including biological animacy (human > animate > inanimate) or inferred animacy, and leaving aside other inherent hierarchies and non-inherent ones (cf. Figure 30). I am, however, conscious that this narrow definition may leave aside interesting phenomena, or more complete explanations of what is going on in a language. Subsequent research works could, for instance, widen the definition to include other phenomena, or more complete explanations for some of them.

The instances included imply animacy effects that can be traced synchronically by analyzing the grammar of a single speaker. Diachronic data, or those based on variation among speakers or languages belonging to the same family have only been considered occasionally. Undoubtedly, diachronic research will provide us in the future with a wider picture of the power of animacy and its restrictions.

At this point, I would like to note that it seems that the term ‘animacy’ has been sometimes vaguely used and that when some investigations have studied certain data more accurately or add new evidence, they have occasionally shown that animacy was not the most accurate term to explain them: often a feature canonically pertaining to animates provided a better explanation, which was proved by having enough data of non-canonical situations in which an animate entity lacks this feature, or when an inanimate one acquires it. Such data is often lacking in linguistic descriptions. Consequently, in the future it would be convenient to undertake two related types of investigations, by doing fieldwork: a) specific works to test whether certain morphological splits are really due to animacy or would be better explained by means of other parameters, and b) specific works to test where an animacy-

based morphological split puts the borderline between animate and inanimate entities. For this latter purpose, entities that are not clearly animate but share properties with them are especially interesting: heavenly entities, robots, mammals vs. other animals, dead bodies, and so on.

### 3. TECHNIQUES

I have observed that, in general, animate entities tend to be at least as marked as their inanimate counterpart, irrespective of whether animacy operates as a semantic feature or as a condition. When it is a feature, animates have more morphological material and when it acts as a condition, animates encode more features or values, often by means of additional morphology.

Among the techniques, I have made two main groups: Those that add or subtract morphological material and those that change it. There are other secondary techniques as well (cf. Figure 37).

As we have seen, the additive or subtractive techniques may operate with animacy as a feature or as a condition. In some languages, the added morpheme encodes just the feature of [+human] or [+animate] but, more often, the added material encodes other features.

Affixation is the most common technique, and especially suffixation. The addition of free elements or cliticization is not that usual, although the border between these three techniques is not always clear on the data sources. Actually, elements employed just to encode animacy are always affixes in my database.

Some of the examples show how a morphologically more free element becomes more cliticized when employed by inanimate entities, but there are examples of the opposite situation. Therefore, it cannot be stated that animate forms are more fusive than inanimate ones.

Subtraction is a technique in which the animate element is less marked than the inanimate one. It is quite an uncommon phenomenon, which tends to be employed in cases in which the animate form is more canonical than the inanimate one, for instance, with some examples of non-canonical case marking.

In cases of change, a new one replaces an already existing structure. Likewise, this may encode animacy either as a feature or as a condition. As we have pointed, these changes

often imply that animates distinguish more features or values than inanimates, but there are counterexamples in which the animate forms are more syncretic.

Cases of reduplication have been studied not as a non-additive technique, but as a change in the morphological shape, since no new morphological material is added: the existent is (partially) copied. All the cases attested in which reduplication is restricted to some entities belong to the inanimate set.

Although not related to morphology directly even if they may also affect it, morphophonemic techniques have been included in the dissertation due to their typological rarity, and since they may appear in combination with morphological techniques. Vowel alternation, nasalization, tone, stress, and glottalization are employed for animacy distinctions, often combined with affixation or alternation. In this regard the Chinantecan languages, although scarcely cited in typological works, are incredibly rich.

There are other techniques. One of them deals with the relative order of morphemes. As we have seen, the morpheme agreeing with the most animate form is closer to the root. Combined techniques are those that employ different techniques together, in different parts of the structure, leading to a new structure. Mixed ones, on the other hand, may use two different techniques together in the same element: these can be affixation and alternation, morphophonemic techniques, or a combination of both, which is very typical in the Otomanguean languages.

#### 4. CATEGORIES

Eighteen different lexical and grammatical categories affected by animacy either as a feature or as a condition have been identified, some of them having several subclasses. It must be noted that such a richness in animacy-affected categories is often due to data from the Chinantecan languages that show animacy distinctions pervasively in many categories within a sentence.

However, determining the category of the element on which animacy is operating either as a feature or as a condition has not always been an easy task, as it depends on different parameters like the segmentability of the morphemes, the technique employed and, related to these, on whether it can always be determined that animacy is affecting a particular morpheme, or the whole word or structure.

Consequently, with techniques of change in which an element changes its shape and no additional morphological material is added, the category that changes its shape has been

considered that is affected by animacy. However there are cases in which morphology is flexive and morphemes not easily segmentable. In these cases, the whole category has been considered to suffer the change and thus, to be affected by animacy. With additive or subtractive techniques, two points of view were available: that which focuses on the category of the element that takes or loses morphological material, and that which centers on the category of the element added or lost. The first option has been chosen as it is typologically richer and more interesting and, as when adding new material this material represents also new features, these have been studied independently in chapter § V.

I have verified that the definition of a category is completely dependent on the source of data. The category of an element is not always clear, either because it depends on the framework adopted by the source of data, or because there is not enough information to infer it clearly.

Pronouns and determiners are a category often affected by animacy. In a language having both free and bound pronouns, when animacy affects them, usually it does it in both, although there are examples in which only free or bound pronouns are animacy-sensitive, especially if they are not etymologically related. However, there are cases in which, having etymologically related demonstratives and pronouns, only the latter are affected by animacy. Moreover, animacy operates commonly as a semantic feature in pronouns, but there are examples in which it conditions the overt appearance of other features.

Commonly, animacy affects only one part of a category. It depends on the category, but there are splits restricted to sex, number, level of determination, and so on. There are examples in which only the singular paradigm shows the split, but we have seen that there are, however, many examples in different categories that show the animacy split in the plural, and not in the singular, even in systems with more distinctions than just that of singular/plural. In the case of demonstratives distinguishing different degrees, when animacy is restricted to a set, it is often in that representing the farther degree. The interaction between animacy and other elements would be an interesting monographic study.

I have observed that when categories have further subdivisions apart from animacy, these are richer among animates than among inanimates, although some exceptions can be found.

Animacy-based tripartite splits (human/animate/inanimate) are not very common, but they can be found, especially (but not only) in pronouns.

Indefinite and interrogative pronouns distinguishing animacy are often found in Indo-European languages, but not only in these. Moreover, it is usual that not all the interrogatives distinguish animacy, even if they can agree both with animate and inanimate entities.

In possessive pronouns and, in general, in possessive constructions it is the possessor that controls animacy agreement, although examples with the possessed NP as a controller can also be found.

Nouns or NPs are animacy controllers, but also targets if they are the elements to which certain morphological markers are added depending on animacy. These are often number, gender, or case markers, but also other elements, which are added to animate entities and not to inanimates, with optionality being in some cases in the middle of the Animacy Hierarchy. Some nouns or NPs may also take bound pronouns if they are animates, often in possessive constructions, and also other elements.

I have observed that there are cases in which predicative and attributive adjectives are not equally affected by animacy. Further research could be done to see whether having an animacy distinction in a predicative adjective implies always having it in an attributive one, or vice versa.

Number markers are more often employed with animates than with inanimates. Numerals are also animacy-sensitive, as sometimes they agree in different features depending on animacy. Moreover, there is enough crosslinguistic evidence to state that lower numerals tend to be more sensitive to animacy than higher ones.

Verbal morphology is animacy-sensitive in different ways. Sometimes the root changes or takes additional morphology depending on the animacy of one argument, usually the subject or the direct object. Many examples show that the verbal root may or may not take a bound pronoun agreeing in different features with one of the arguments, depending on animacy and, sometimes, on other features as well. The relative animacy of two arguments may also condition verbal morphology by defining the morpheme order or their morphophonological independence. In languages with flexive morphology, animacy may be the governor of the values of some features like person and number.

Gender markers and classifiers may encode just animacy, or also include other genders based on inherent or non-inherent features. Moreover, animacy may operate as a condition when these gender markers or classifiers are overtly marked for other features depending on animacy, or when gender markers are not animacy-dependent, but their values are governed by animacy. Moreover, in some languages more than one gender system with their

own markers may coexist, the role of animacy being different in each system. Likewise, when there is a conflict for the gender marker that must be employed, animacy has proved determinant in some languages for the resolution of the conflict.

Animacy in case markers operates as a semantic feature when a case-value has alternative forms for animates and inanimates, but as a condition if animacy determines the case-value or case syncretisms in the paradigm. The core cases are affected by animacy in many languages, but there are also examples of bigger systems in which oblique and circumstantial case markers are equally animacy-sensitive. With the data available, I am not able to determine whether an animacy distinction in one case or type of case implies having the distinction in other. It seems that there is not such an implication, but this could be a good topic for further research in the future.

As I have mentioned, pronouns and determiners are animacy-sensitive in many languages, but on the other hand, we also have examples of *whatchamacallit* words with animacy distinctions. These are, obviously, rather more restricted or, at least, almost never mentioned in grammars. Further research could try to show whether there is any implicational relation among categories, that is, whether the fact that there are animacy distinctions in some categories may imply distinguishing animacy in others.

## 5. FEATURES

Animacy has been studied in four different features, namely gender, number, person, and case.

Regarding gender, animacy may act as a semantic feature for the configuration of the gender system and number of genders, based on inherent features of the controller. Semantic gender systems can be just animacy-based (human/nonhuman or animate/inanimate, being tripartite human/animate/inanimate systems rare but possible), or mix animacy with other semantic features. In mixed systems, on the other hand, non-semantic factors (phonology, morphology, syntax, distance, stress, number, and so on) are also important together with animacy to outline the gender system, animate entities being the more keen on following semantic criteria. In combined systems, semantic and non-semantic factors define gender agreement in different targets, without any overlapping. Apparently, there is no crosslinguistic rule to determine which targets use a semantic criteria and which use a formal one more often. There are also languages with different seman-

tic systems depending on the agreement target, one of these being more clearly purely animacy-based.

In semantic systems, even in complex systems with a lot of semantically assigned genders, animacy is one of the most consistent, central, and pervasive semantic feature for gender assignment. Together with this, we often find sex-based subdivisions for humans or animates, genders for plants, shapes, measures, and so on. Deities may or may not be put together with humans.

I have argued that the masculine/feminine labels are sometimes used inaccurately in descriptive grammars of some languages, as there are languages that put inanimates together with masculines or feminines; in these cases, it would be more convenient to talk about a masculine or feminine vs. everything else system, and not about a masculine/feminine one. Moreover, I have provided some examples of presumably sex-based systems (masculine/feminine) that seem to assign the gender value according to biological sex for animates, and according to other elements such as importance or shape for inanimates. However, I have suggested that these features such as importance or shape may actually be determinant for animate entities to be added to a gender, regardless of animacy.

I have shown that even the most purely animacy-based systems have problems to explain the appurtenance of some entities to a gender. Each gender includes some canonical entities, but also others. Entities may belong to a gender because they share some properties with the canonical entities within this gender. Moreover, “cultural” factors such as experience, imagination, beliefs, cultural background, power, importance for the community, ability for motion, empathy, and so on, are also important. Pragmatic factors, too, like deprecatoriness or ameliorativeness, showing respect or disrespect, and augmentation or diminution, may determine the gender of an entity. Even evidence of diachronic evolution shows that entities can change their already semantic gender toward a more animacy-based one, although the reasons for that are not always clear.

In the diachronic axis, I have provided some instances of gender systems that have walked toward a more clearly animacy-based system, regardless on whether the previous system was semantic, non-semantic, or both.

Apart from being a semantic feature present in some gender systems, animacy can be a condition for gender agreement, even in systems in which gender is not based on animacy or on other semantic features. Animacy can determine the overt appearance of gender, in some cases together with other features. There are few cases of overt gender markers

whose only function is that of encoding animacy, although there are some. In these, the marker always encodes the [+animate] value.

Instead of overt marking, animacy may control the gender value of the target. Animacy often solves conflicts when two controllers must agree in the same target. In big gender systems with both animates and inanimates scattered in different genders, animates tend to agree in the canonical gender for animates or males, and inanimates in the canonical one for inanimates, which are not the genders these entities belong to. Usually the biologically animate entity imposes its agreement over the inanimate (although exceptions can be found), but some languages prefer to employ alternative constructions instead of the agreement imposed by the animate controller.

Often the animate/inanimate or human/nonhuman split is restricted to a value or values, and does not affect the complete paradigm. Regarding number, the plural is more prone to show an animacy split than other number values, or does it more clearly. That the plural is more reluctant to lose the animacy distinction or more prone to create it is also supported by diachronic evidence. I have likewise offered objections or alternative explanations for the presumable exceptions to this rule. Concerning person, animacy splits are obviously restricted to the third person, which can be inanimate. However, the person value of an entity not being 3rd person can determine the animacy splits of another 3rd person entity. Besides, there are animacy splits restricted to a sex value, a tense value, or conditioned by affectedness, specificity, or distance among other things.

Another feature affected by animacy is number. Number can be overtly marked in the controller, shown by agreement in a target, or both. The more animate a controller is, the more it will mark number. Overt number marking may be dependent on other elements together with animacy. It may be restricted to proximate entities, possessed NPs, the existence of a modifier, and so on.

Among the vast amount of targets showing animacy-dependent number marking, (bound) pronouns are crosslinguistically very common. Whereas humans or animates show number distinction, inanimates are syncretic, or marked with the default number, which tends to be the singular form of animates. Other animacy-dependent targets for number are different types of determiners, numerals, gender markers and classifiers, conjunctions, evidentiality markers, catalyzers, or even nouns and NPs. Adjectives can also be animacy-sensitive in regard to number agreement, and in some cases predicative and attributive adjectives show a different behavior. Verbs show number agreement with the subject, and



more often with objects, either in a flexive way or by means of the overt addition of bound pronouns, depending on the animacy of these controllers, although other elements like specificity, definiteness, and so on are also important in some languages.

Animacy and optionality are often related. There are languages in which animates show number optionally whereas inanimates block it, or follow a hierarchy in which the more animate an entity is, the more it will encode number, leaving optionality for entities lower in the scale. Once again, in some languages, specificity, countability, agentivity, the type of nominal, case, word order, distance, and other factors act together with animacy for optionality. Moreover, as happened with gender, animacy solves some number-agreement conflicts in favor of the animate controller, with elements such as word order and concreteness also being important.

When number marking and number agreement do not follow the same cut-off point in the Animacy Hierarchy within a language, agreement tends to be more widespread, covering a wider range of entities of the Animacy Hierarchy, although I have found some exceptions.

Likewise, some number-values, like the dual or paucal, are more common with humans or animates than with inanimates. In other cases, inanimates lack a proper dual marker and encode it by other means. In Tuyuca, animates have a singular vs. everything else system, and inanimates have a singular/dual/paucal vs. plural one. Borana-Arsi-Guji Oromo is the only language I have found in which the overt number marking with humans is made by marking the singular; not the plural.

In cases of inverse number marking the same marker may be singular or plural depending on the animacy of its controller. In some languages the marker is added to animate singulars and inanimate plurals, but other languages show the opposite pattern.

Apart from overt number marking or agreement, animacy may determine the number controller in the sentence. Animate direct objects or obligatorily possessed entities tend to be controllers over other NPs in the sentence.

Sometimes, forms that merge number and gender show interesting syncretisms. The same form may encode, for instance, human gender and plural number, or inanimate gender and no number/singular number. This might have happened because no number distinction was available in these languages until animate entities took less animate gender markers to encode the plural.

Certain statements about number by some researchers, namely A) the existence of an Animacy Hierarchy for number marking in which entities higher in the hierarchy mark number and have more number distinctions than entities lower in the hierarchy and B) that number agreement in the targets is more consistent than number marking in the controllers, seem to have few counterexamples, since I have shown that those cases that seem to contradict the statements are not that clear.

Person is often cumulated with other features, especially with number and gender. Animate entities trigger person agreement more often than inanimates, with few exceptions. As happened with other features, animacy may condition its overt realization, usually by the presence or absence of a bound pronoun agreeing in person, whose controller is often the direct object, but also the subject or other constituent in the sentence. Animate direct objects, which are not canonical, tend to trigger person agreement more often than inanimates, with examples available all over the world. Animate subjects as controllers of person agreement are often found in intransitive sentences. Other elements whose person agreement may be controlled by animacy are goals or adjectives.

There are languages in which the semantics of the verb is also crucial together with the animacy of the controller, as it is the verb that determines the semantic role the animate controller must play.

In cases in which person is always marked, animacy may determine whether the person-value is assigned following semantic criteria, or arbitrarily. Animates follow semantic criteria more often than inanimates, with few exceptions. There are also cases in which semantic agreement is optional for animates or humans and blocked for inanimates. Animacy can also determine which NP in a sentence must be the controller of person agreement in the verb.

Together with animacy, elements like specificity, salience, presupposedness, and other features may also condition the realization of the feature of person.

There are languages in which the obviation distinction is restricted to animates and, in some cases, just to a part of them. In other cases, animacy determines whether an argument must be proximate or obviative.

Finally, the relation between animacy and the feature of case has been studied. I have described three main viewpoints from which case has been addressed in typological works. The semantic approach deals with the case a particular semantic role must take, the syntactic/functional one describes the case-marker an argument must take in the sentence, and

the morphological one focuses on the forms different cases take in a paradigm, and the syncretisms between them, regardless of the semantic roles and syntactic functions. The approach is largely conditioned by the tradition of grammarians in a particular language or family. Consequently, both the morphological and the syntactic/functional approaches have been included, as the latter also has implications in morphology. The semantic point of view has not been studied directly.

In the syntactic/functional viewpoint, there are examples in which only animate subjects are overtly marked with cases such as the nominative or ergative, or in the direct case. Other factors such as tense/aspect, the degree of impingement on an undergoer, the information structure, and the semantics of the verb may also condition case marking of subjects. Apart from overt marking, the case chosen for the subject may also be determined by animacy, as in some languages the ergative or nominative case is restricted to animate subjects, leaving the instrumental or oblique for inanimate subjects. Sometimes encoding the subject in a noncore case also triggers syntactic detransitivization or passivization.

The direct object is one of the most studied categories from the viewpoint of animacy, but I have argued against the use of “Differential Object Marking” as an accurate label for that. There are many examples of languages encoding overtly just human or animate objects.

Cases of split ergativity in which animate objects are overtly encoded in the accusative case and inanimate ones in the absolutive are actually a case of overt marking, since the accusative tends to have a marker, whereas the nominative tends to be a morphological zero.

Specificity, definiteness or topicality are crucial factors for overt marking in many languages, and often override animacy.

The animate direct object and the indirect object often share the same case marker. Conversely, the inanimate object may be encoded like the subject. Inanimate objects can also be encoded in the oblique cases and in some languages case markers for animate objects are multifunctional.

When there is some kind of optionality for overt case marking, it decreases the further we descend down the Animacy Hierarchy.

In the case of indirect objects, it is difficult to seek the role of animacy, as it is not clear whether the use of different markers depends on animacy, or these markers encode actually different semantic roles. The viewpoint is determined by the data source.

The indirect object is prototypically animate and animate indirect objects are often less marked than inanimate ones. Animate entities are in general more marked than inanimates, with few exceptions, this being one of them. There are also examples in which animacy determines the case value an indirect object must take.

Animacy may also affect the marking of both the direct and the indirect object. Moreover, there are languages in which animacy governs overt marking for the direct object, but differential value marking for the indirect one. I have also provided an example in which all the core functions, the subject, and both objects, are affected by animacy.

Among the noncore cases, there are some (noncore) functions marked with the direct case if it is animate and in the oblique if it is not. It is also common for the instrumentals and locational cases to be compulsorily inanimate and, therefore, animates to require other constructions or cases.

In some cases the relative animacy of two arguments (subject/object, direct/indirect object) is important for case marking in one or both of them. There are languages in which the relative animacy of the subject and the direct object has to be considered. Usually, the animacy of the object determines the overt marking of the subject. There are a few examples in which the marked NP is that for the object. In cases of direct/inverse marking in the verb, when the subject is more animate than the object (together with other factors), direct marking is employed, and vice versa. Regarding direct and indirect objects, if the indirect object is animate, the direct one tends to remain unmarked, but there are instances of the opposite as well.

I have shown that animacy-effects on case can also be found in categories outside the NP, namely in the verb, in those cases in which having an inanimate subject or object entails detransitivization or passivization, in cases in which an animate object can be marked with the dative, triggering dative verbal agreement, and in cases in which local cases show verbal agreement only if they are added to an animate entity.

The morphological approach has shown that there are languages in which the ergative is syncretic with the instrumental, but has an autonomous form if it is animate, with a degree of optionality in the middle part of the Animacy Hierarchy. Other languages never

have an autonomous ergative form: the ergative is syncretic with a case when it is animate, and with another if it is inanimate.

Regarding the accusative, with inanimates, it tends to be syncretic with the nominative, having an autonomous form for animates. In cases in which the accusative is never autonomous, the animate accusative tends to be syncretic with the dative, or a noncore case. Sometimes syncretisms are not extended to the whole paradigm or are not the same for all the paradigms or targets (determiners, nouns, adjectives, and so on) and may also be dependent on features such as topicality or discursive parameters.



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## APPENDIXES

## APPENDIX I. PRONOMINAL SYSTEM IN ZAPOTECAN LANGUAGES

Table 277. Pronominal system in Zapotecan Languages.

	Human							Nonhuman						
	Adult	Alternate	Baby	Child	Female	Formal	Informal	Male	Unmarried male adolescent	Animate	Inanimate	Deity	General	Deprecatory
Amatlán				ma <sup>d177</sup>	me			ʃa <sup>?</sup>		ma	ja; a, j <sup>178</sup>		ngi <sup>179</sup>	
Cajonos						= e <sup>?</sup>	= b <sup>?</sup>			= b	= n			
Chichicapán						ba	bi			ma	an	ji <sup>?</sup> h		
Choapan						= nae <sup>?</sup>	= bi <sup>?</sup>			= ba	= n <sup>180</sup>			= dā <sup>?</sup>
Coatecas Altas				ʃa <sup>?</sup> , ʃa <sup>181</sup>				mbi <sup>182</sup>		= ma	= i	= mi		= ni <sup>?</sup>
Isthmus		= 0 <sup>183</sup>	= ni <sup>?</sup> <sup>184</sup>			= be				= mc	= ni			

<sup>177</sup> This is also the noun for *child*.<sup>178</sup> Uncontracted; contracted after consonants and vowels, respectively.<sup>179</sup> The use of this seldom-used pronoun has not been investigated in detail. It seems to be most used in colloquial speech (Marlett 2010: 17).<sup>180</sup> Some speakers sometimes use =*na* as well, and others may use =*nan* [=nan].<sup>181</sup> First it is used in men's speech and second in women's speech.<sup>182</sup> It is used in men's speech.

Lachixío	(nu) <sup>185</sup>	nzu <sup>186</sup>	za <sup>187</sup>	í	í	í	í	nu <sup>188</sup>
Mila	= na <sup>189</sup>	= bɪ <sup>190</sup>	= ba <sup>191</sup>	= ni, = ʃ <sup>192</sup>	= ma <sup>193</sup> , = nɪ <sup>194</sup>	= ni <sup>195</sup>	= ba <sup>196</sup>	
Ocotlán			= (i)ʔ	= ʒ	= ma	= ni	= mi <sup>197</sup>	
Quiquitani- Quien				me	ʃaʔ <sup>198</sup>	ma	o, w <sup>199</sup>	

<sup>183</sup> Alternating with an overt marked pronoun = *be*.

<sup>184</sup> Not employed very much. Also used to show pity toward an adult.

<sup>185</sup> This is used only in Santa María Lachixío, for parents and newborn children.

<sup>186</sup> Used only for females under 20, married or unmarried.

<sup>187</sup> For authorities and considerably older people.

<sup>188</sup> Only deity and angels in San Vicente Lachixío.

<sup>189</sup> In the subdialect of Santo Domingo Matatlán.

<sup>190</sup> In the subdialect of Santo Domingo Matatlán, for children and adults for whom there is love.

<sup>191</sup> Not commonly used.

<sup>192</sup> Used only in women's speech. In Santo Domingo Matatlán involves respect.

<sup>193</sup> In the subdialect of Santo Domingo Matatlán.

<sup>194</sup> Used only in women's speech. In Santo Domingo Matatlán involves respect.

<sup>195</sup> Used only in women's speech. In Santo Domingo Matatlán involves respect.

<sup>196</sup> Perhaps, in the subdialect of Santo Domingo Matatlán.

<sup>197</sup> Used for God, Jesus, the apostles, the village president, and perhaps one's father. For angels the formal one is used.

<sup>198</sup> Used only by men referring to other men.

<sup>199</sup> After consonants and vowels, respectively.

San Juan Guelavía	bi	ɲ	bi, b <sup>200</sup>	ʒi, ʒ <sup>201</sup>	mi, m <sup>202</sup>	ni <sup>203</sup>	ni
San Vicente Coatlán		‘mi	‘ja		‘má	ja, a, j <sup>204</sup>	na <sup>205</sup>
Santa Inés Yatzuchi		= ne <sup>?</sup>			man <sup>206</sup>		
Santa María Quiegolani	ne	me	‘men	‘za <sup>?</sup>	ma <sup>?</sup>	w, o <sup>207</sup>	ne
Santiago Xani- ca		me <sup>208</sup>		ʒa	ng <sup>v</sup> e	na	

<sup>200</sup> After consonants and vowels, respectively.

<sup>201</sup> After consonants and vowels, respectively.

<sup>202</sup> After consonants and vowels, respectively.

<sup>203</sup> This pronoun contracts to *n* under conditions that have not been described.

<sup>204</sup> Uncontracted; contracted after consonants and vowels, respectively. This pronoun has some syntactic properties that distinguish it from other pronouns in this variety.

<sup>205</sup> When used as the object of the possessive word *len* in certain contexts, this pronoun may refer to first, second, or third person

<sup>206</sup> This is also the noun for *animal*.

<sup>207</sup> After consonants and vowels, respectively.

<sup>208</sup> It can also be used with males.

Santo Domingo Albarradas	= man	= m	=iɣ, =ɣ <sup>209</sup>	= b <sup>210</sup>	=áɲ, =ɲ <sup>211</sup>
Texmelucan	mɪ, m <sup>212</sup>	ɲɪ, ɲ <sup>213</sup>	ju, j <sup>214</sup>	ma	ɲɪ, ɲ <sup>215</sup>
Tlilquapan	=ba    = n <sup>2</sup> = bi    = nin			= ɟ	ma    n    = n <sup>2</sup>
Xanaguá	free nouns	ʃ(O) <sup>216</sup>	free nouns	free nouns <sup>217</sup>	o, w <sup>218</sup>
Yalálag	= (ɸ)e <sup>219</sup>	= be <sup>2</sup>		= ba <sup>2</sup>	= n:
Yatzachi	e <sup>2</sup>	= bo <sup>2</sup>		= b	= n <sup>220</sup>
Zoogocho	= e <sup>2</sup>	= be <sup>2</sup>		= ba <sup>2</sup>	= (e)n

<sup>209</sup> After consonants and vowels, respectively.

<sup>210</sup> This allomorph occurs following vowels; one expects that another allomorph, probably *-ih*, follows consonants

<sup>211</sup> After consonants and vowels, respectively.

<sup>212</sup> It is also the formal form to address males for a woman, and to address females for a man.

<sup>213</sup> This pronoun is used for informal reference to people (irrespective of sex) in female speech, for informal reference to females in male speech, and to things in female and male speech. After consonants and vowels, respectively.

<sup>214</sup> After consonants and vowels, respectively.

<sup>215</sup> This pronoun is used for informal reference to people (irrespective of sex) in female speech, for informal reference to females in male speech, and to things in female and male speech. After consonants and vowels, respectively.

<sup>216</sup> Infrequent.

<sup>217</sup> The form for animal *ma*, might also be used.

<sup>218</sup> After consonants and vowels, respectively.

<sup>219</sup> These relate to two separate conjugation patterns.

<sup>220</sup> Also used to show disrespect to a person.

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## APPENDIX III. GENETIC CLASSIFICATION OF LANGUAGES

This alphabetically arranged classification follows Ethnologue (Simons & Fennig 2018 [1951]) as a reference. In the left column you will find the genetic filiation and in the right one, the name of the language.

**Afro-Asiatic**

Afro-Asiatic, Berber, Northern, Atlas	Tamazight
Afro-Asiatic, Chadic, West, B, B.2	Miya
Afro-Asiatic, Cushitic, East, Oromo	Oromo, Borana-Arsi-Guji
Afro-Asiatic, Cushitic, East, Oromo	Oromo, Eastern
Afro-Asiatic, Cushitic, East, Saho-Afar	Afar
Afro-Asiatic, Cushitic, South	Iraqw
Afro-Asiatic, Omotic, North, Dizoid	Dizin
Afro-Asiatic, Omotic, North, Gonga-Gimojan, Gimojan, Ometo-Gimira, Ometo, East	Zaysete
Afro-Asiatic, Semitic, Central, South, Arabic	Arabic
Afro-Asiatic, Semitic, Central, South, Arabic	Arabic, Egyptian Spoken
Afro-Asiatic, Semitic, Central, South, Arabic	Maltese

**Algic**

Algic, Algonquian	Blackfoot
Algic, Algonquian, Cree-Montagnais	Cree, Plains
Algic, Algonquian, Fox	Meskwaki
Algic, Algonquian, Ojibwa-Potawatomi	Ojibwa
Algic, Algonquian, Ojibwa-Potawatomi	Ottawa
Algic, Algonquian, Ojibwa-Potawatomi	Potawatomi

**Arauan**

Arauan	Kulina
Arauan, Jamamadi	Jamamadi

**Australian**

Australian, Daly, Murrinh-Patha	Ngan'gityemerri
Australian, Djamindjungan	Djamindjung

Australian, Gunwingguan, Burarran	Guragone
Australian, Gunwingguan, Enindhilyagwa	Nunggubuyu
Australian, Gunwingguan, Gagudju	Gagadu
Australian, Gunwingguan, Gunwinggic	Gunwinggu
Australian, Gunwingguan, Ngalkbun	Dalabon
Australian, Gunwingguan, Rembargic	Ngalakan
Australian, Gunwingguan, Rembargic	Rembarunga
Australian, Gunwingguan, Yangmanic	Wardaman
Australian, Limilngan-Wulna	Limilngan
Australian, Pama-Nyungan, Arandic	Kaytetye
Australian, Pama-Nyungan, Dyrbalic	Dyrbal
Australian, Pama-Nyungan, Dyrbalic	Warrgamay
Australian, Pama-Nyungan, Gumbaynggic	Kunbainggar
Australian, Pama-Nyungan, Guugu-Yimidhirr	Guguyimidjir
Australian, Pama-Nyungan, Kala Lagaw Ya	Kala Lagaw Ya
Australian, Pama-Nyungan, Karnic, Karna	Dieri
Australian, Pama-Nyungan, Karnic, Palku	Arabana
Australian, Pama-Nyungan, South-West, Coastal Ngayarda	Martuyhunira
Australian, Pama-Nyungan, South-West, Inland Ngayarda	Dhargari
Australian, Pama-Nyungan, South-West, Ngumbin	Jaru
Australian, Pama-Nyungan, South-West, Ngumbin	Walmajarri
Australian, Pama-Nyungan, Wagaya-Warluwaric, Warluwara-Thawa	Wagaya
Australian, Pama-Nyungan, Yalandyic	Kuku-Yalanji
Australian, Pama-Nyungan, Yidinic	Yidiny
Australian, Pama-Nyungan, Yuulngu, Dhangu	Dhangu-Djangu
Australian, Pama-Nyungan, Yuulngu, Dhuwal	Ritarungo
Australian, Tiwian	Tiwi
Australian, West Barkly	Djingili
Australian, West Barkly	Wambaya
Australian, Worroran, Western Worroran	Worrorra

### **Austro-Asiatic**

Austro-Asiatic, Mon-Khmer, East. Mon-Khmer, Katuic, East Katuic, Katu-Pacoh	Katu, Eastern
Austro-Asiatic, Mon-Khmer, North. Mon-Khmer, Khmuic, Mal-Khmu', Mal-Prai	Mal
Austro-Asiatic, Munda, North Munda, Kherwari, Mundari	Mundari

Austro-Asiatic, Munda, North Munda, Korku	Korku
Austro-Asiatic, Munda, South Munda, Kharia-Juang	Kharia

### **Austronesian**

Austronesian, Atayalic	Atayal
Austronesian, Malayo-Polynesian, Bali-Sasak-Sumbawa	Bali
Austronesian, Malayo-Polynesian, Celebic, Eastern, Southeastern, Muna-Buton, Nuclear Muna-Buton, Munan, Munic, Western	Muna
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Central Maluku, East, Seram, Nunusaku, Piru Bay, West, Hoamoal	Larike-Wakasih
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Central-Eastern Oceanic, Remote Oceanic, Central Pacific, East Fijian-Polynesian, East Fijian	Fijian
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Central-Eastern Oceanic, Remote Oceanic, Loyalty Islands	Drehu
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Central-Eastern Oceanic, Remote Oceanic, Micronesian, Micronesian Proper, Ikiribati	Kiribati
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Central-Eastern Oceanic, Remote Oceanic, Micronesian, Micronesian Proper, Kusaiean	Kosraean
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Central-Eastern Oceanic, Remote Oceanic, Micronesian, Micronesian Proper, Pohnpeic-Chuukic, Chuukic	Sonsorolese
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Central-Eastern Oceanic, Remote Oceanic, New Caledonian, Northern, Extreme Northern	Nêlêmwa-Nixumwak
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Central-Eastern Oceanic, Remote Oceanic, New Caledonian, Northern, North, Nemi	Nemi
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Central-Eastern Oceanic, Remote Oceanic, New Caledonian, Southern, South, Xaracuu-Xaragure	Xârâcùù
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, St. Matthias	Mussau-Emira
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Temotu, Utupua-Vanikoro, Utupua	Amba

Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Western Oceanic, Meso Melanesian, New Ire- land, South New Ireland-Northwest Solomonian, Patpatar-Tolai	Sursurunga
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Western Oceanic, North New Guinea, Ngero- Viti, Viti, Bel, Nuclear Bel, Northern	Takia
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Western Oceanic, North New Guinea, Schouten, Kairiru-Manam, Kairiru	Kairiru
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Western Oceanic, North New Guinea, Schouten, Kairiru-Manam, Manam	Manam
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, Oceanic, Western Oceanic, Papuan Tip, Nuclear, North Papuan Mainland-D'Entrecasteaux, Are-Taupota, Are	Gapapaiwa
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, South Halmahera-West New Guinea, South Halmahera, East Makian-Gane	Makian, East
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, South Halmahera-West New Guinea, West New Guinea, Cenderawasih Bay, Biakic	Biak
Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo-Polynesian, South Halmahera-West New Guinea, West New Guinea, Cenderawasih Bay, Yapen, Central-Western	Wandamen
Austronesian, Malayo-Polynesian, Chamorro	Chamorro
Austronesian, Malayo-Polynesian, Malayo-Chamic, Chamic, Acehnese	Aceh
Austronesian, Malayo-Polynesian, Malayo-Chamic, Malayic, Malay	Indonesian
Austronesian, Malayo-Polynesian, Palauan	Palauan
Austronesian, Malayo-Polynesian, Philippine, Greater Central Philippine, Central Philippine, Tagalog	Tagalog
Austronesian, Tsouic	Saaroa
<b>Aymaran</b>	
Aymaran, Tupe	Jaqaru
<b>Barbacoan</b>	
Barbacoan, Northern	Awa-Cuaiquer



**Bororoan**

Bororoan

Borôro

**Cariban**

Cariban

Carib

Cariban, Central

Apalaí

Cariban, Central, Makiritare

Maquiritari

Cariban, Central, Wayana

Wayana

Cariban, North Amazonian, Pemón, Pemón proper

Macushi

Cariban, South Amazonian

E'ñapa Woromaipu

Cariban, Tiriyo, Tiriyo

Trió

Cariban, Waiwai

Hixkaryana

Cariban, Waiwai

Waiwai

**Central Solomons**

Central Solomons

Savosavo

**Chinookan**

Chinookan

Chinook

**Chukotko-Kamchatkan**

Chukotko-Kamchatkan, Northern, Chukot

Chukchi

Chukotko-Kamchatkan, Northern, Koryak-Alyutor

Koryak

**Creole**

Creole, English based, Atlantic, Krio

Pidgin, Nigerian

**Dravidian**

Dravidian, Central, Kolami-Naiki

Kolami, Northwestern

Dravidian, Central, Kolami-Naiki

Kolami, Southeastern

Dravidian, Central, Parji-Gadaba

Duruwa

Dravidian, Central, Parji-Gadaba

Gadaba, Pottangi Ollar

Dravidian, South-Central, Gondi-Kui, Konda-Kui, Manda-Kui, Kui-Kuvi

Kuvi

Dravidian, South-Central, Telugu

Telugu

Dravidian, Southern, Tamil-Kannada, Kannada

Badaga

Dravidian, Southern, Tamil-Kannada, Kannada

Kannada

Dravidian, Southern, Tamil-Kannada, Tamil-Kodagu, Tamil-Malayalam, Tamil

Tamil

**East Bird's Head-Sentani**

East Bird's Head-Sentani, Burmeso	Burmeso
East Bird's Head-Sentani, East Bird's Head, Meax	Moskona
East Bird's Head-Sentani, Sentani, Sentani Proper	Sentani

**East Geelvink Bay**

East Geelvink Bay, Bauzi	Bauzi
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**Eskimo-Aleut**

Eskimo-Aleut, Eskimo, Inuit-Inupiaq	Eskimo
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**Eyak-Athabaskan**

Eyak-Athabaskan, Athabaskan, Apachean	Navajo
Eyak-Athabaskan, Athabaskan, Northern Athabaskan, Slavey-Hare	Slave
Eyak-Athabaskan, Tlingit	Tlingit

**Guajiboan**

Guajiboan, Guajibo	Guahibo
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**Haida**

Haida	Haida
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**Indo-European**

Indo-European	Indo-European
Indo-European, Anatolian	Hittite
Indo-European, Armenian	Armenian
Indo-European, Balto-Slavic, Baltic, Eastern	Latvian
Indo-European, Balto-Slavic, Slavic, East	Russian
Indo-European, Balto-Slavic, Slavic, East	Ukrainian
Indo-European, Balto-Slavic, Slavic, East	Belarusian
Indo-European, Balto-Slavic, Slavic, South, Eastern	Bulgarian
Indo-European, Balto-Slavic, Slavic, South, Eastern	Macedonian
Indo-European, Balto-Slavic, Slavic, South, Eastern	Slavonic, Old Church
Indo-European, Balto-Slavic, Slavic, South, Western	Serbo-Croatian
Indo-European, Balto-Slavic, Slavic, South, Western	Slovene
Indo-European, Balto-Slavic, Slavic, West, Czech-Slovak	Czech
Indo-European, Balto-Slavic, Slavic, West, Czech-Slovak	Slovak

Indo-European, Balto-Slavic, Slavic, West, Lechitic	Polish
Indo-European, Balto-Slavic, Slavic, West, Sorbian	Sorbian, Lower
Indo-European, Balto-Slavic, Slavic, West, Sorbian	Sorbian, Upper
Indo-European, Celtic, Insular, Brythonic	Breton
Indo-European, Germanic, North, East Scandinavian, Danish-Swedish, Danish-Riksmål, Danish	Danish
Indo-European, Germanic, North, East Scandinavian, Danish-Swedish, Swedish	Swedish
Indo-European, Germanic, West, English	English
Indo-European, Germanic, West, High German, German, Middle German, East Middle German	German, Standard
Indo-European, Germanic, West, Low Saxon-Low Franconian, Low Franconian	Dutch
Indo-European, Germanic, West, Low Saxon-Low Franconian, Low Franconian	Vlaams
Indo-European, Greek, Attic	Greek
Indo-European, Greek, Attic	Greek, Ancient
Indo-European, Greek, Attic	Greek, Cappadocian
Indo-European, Indo-Iranian, Indo-Aryan	Sanskrit
Indo-European, Indo-Iranian, Indo-Aryan, Central zone, Gujarati	Gujarati
Indo-European, Indo-Iranian, Indo-Aryan, Central zone, Panjabi	Punjabi, Eastern
Indo-European, Indo-Iranian, Indo-Aryan, Central zone, West. Hindi, Hindustani	Hindi
Indo-European, Indo-Iranian, Indo-Aryan, Central zone, West. Hindi, Hindustani	Urdu
Indo-European, Indo-Iranian, Indo-Aryan, Eastern zone, Bengali-Assamese	Bengali
Indo-European, Indo-Iranian, Indo-Aryan, Eastern zone, Bihari	Bhojpuri
Indo-European, Indo-Iranian, Indo-Aryan, Eastern zone, Bihari	Magahi
Indo-European, Indo-Iranian, Indo-Aryan, Eastern zone, Oriya	Oriya
Indo-European, Indo-Iranian, Indo-Aryan, Intermediate Divisions, Western, Panjabi, Western Panjabi	Punjabi, Western
Indo-European, Indo-Iranian, Indo-Aryan, Northern zone, Eastern Pahari	Nepali
Indo-European, Indo-Iranian, Indo-Aryan, Northwestern zone, Dardic, Chitral	Kalasha
Indo-European, Indo-Iranian, Indo-Aryan, Northwestern zone, Dardic, Chitral	Khowar
Indo-European, Indo-Iranian, Indo-Aryan, Northwestern zone, Dardic, Kashmiri	Kashmiri
Indo-European, Indo-Iranian, Indo-Aryan, Northwestern zone, Dardic, Kohistani	Torwali
Indo-European, Indo-Iranian, Indo-Aryan, Northwestern zone, Dardic, Pashai	Pashai, Southeast
Indo-European, Indo-Iranian, Indo-Aryan, Outer Languages, Northwestern zone, Dardic, Kunar	Dameli
Indo-European, Indo-Iranian, Indo-Aryan, Sinhalese-Maldivian	Sinhala

Indo-European, Indo-Iranian, Indo-Aryan, Southern zone	Marathi
Indo-European, Indo-Iranian, Iranian, Eastern, Northeastern	Ossetian
Indo-European, Indo-Iranian, Iranian, Eastern, Southeastern, Pashto	Pashto
Indo-European, Indo-Iranian, Iranian, Western, Northwestern, Balochi	Baluchi
Indo-European, Indo-Iranian, Iranian, Western, Northwestern, Central Iran	Vafsi
Indo-European, Indo-Iranian, Iranian, Western, Northwestern, Kurdish	Kurdish
Indo-European, Indo-Iranian, Iranian, Western, Northwestern, Talysh	Eshtehardi
Indo-European, Indo-Iranian, Iranian, Western, Southwestern, Persian	Persian
Indo-European, Italic, Latino-Faliscan	Latin
Indo-European, Italic, Romance, Eastern	Romanian
Indo-European, Italic, Romance, Italo-Western, Western, Gallo-Iberian, Gallo-Romance, Gallo-Rhaetian, Oïl, French	French
Indo-European, Italic, Romance, Italo-Western, Western, Gallo-Iberian, Ibero-Romance, West Iberian, Castilian	Spanish
Indo-European, Italic, Romance, Italo-Western, Western, Gallo-Iberian, Ibero-Romance, West Iberian, Castilian	Spanish, Medieval
Indo-European, Italic, Romance, Southern, Sardinian	Sardinian

### **Iroquoian**

Iroquoian, Northern Iroquoian, Five Nations-Huronian-Susquehannock, Five Nations-Susquehannock, Mohawk-Oneida	Mohawk
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### **Japonic**

Japonic	Japanese
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### **Jean**

Jean, Southern, Kaingang	Kaingang
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### **Kartvelian**

Kartvelian, Georgian	Georgian
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### **Khoe-Kwadi**

Khoe-Kwadi, Khoe, Kalahari Khoe, Northwest	Khwe
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### **Kiowa-Tanoan**

Kiowa-Tanoan	Jemez
Kiowa-Tanoan	Kiowa
Kiowa-Tanoan, Tanoan	Tiwa, Southern

**Koreanic**

Koreanic Korean

**Kx'a**

Kx'a, !Kung Ju|'hoan

**Language isolate/dubious classification**

Language isolate (?) Yana  
 Language isolate Basque  
 Language isolate Hatam  
 Language isolate Karok  
 Language isolate Klamath-Modoc  
 Language isolate Movima  
 Language isolate Waorani  
 Language isolate Washo  
 Language isolate, Penutian (?) Takelma

**Maipurean**

Maipurean Proto-Arawak  
 Maipurean, Northern, Eastern, Palikur Palikúr  
 Maipurean, Northern, Maritime, Ta-Maipurean Arawak  
 Maipurean, Northern, Maritime, Ta-Maipurean Wayuu  
 Maipurean, Northern, Upper Amazon, Eastern Nawiki Tariana  
 Maipurean, Northern, Upper Amazon, Eastern Nawiki, Karu Baniwa  
 Maipurean, Northern, Upper Amazon, Western Nawiki, Warekena Guarekena  
 Maipurean, Southern, Campa, Ashéninga Nanti  
 Maipurean, Southern, Southern Outlier, Mojo, Mojo Ignaciano  
 Maipurean, Southern, Southern Outlier, Terena Terêna

**Matacoan**

Matacoan, Mataco Wichí

**Mayan**

Mayan, Yucatecan-Core Mayan, K'ichean-Mamean, K'ichean, Poqom-K'ichean, K'iche'  
 Core K'ichean  
 Mayan, Yucatecan-Core Mayan, K'ichean-Mamean, Mamean, Teco-Mam Mam

Mayan, Yucatecan-Core Mayan, Q'anjob'alan-Chujean, Q'anjob'alan, Q'anjob'al-  
Akateko-Jakalteko Jakalteko

Mayan, Yucatecan-Core Mayan, Yucatecan, Yucatec-Lacandon Maya, Yucatec

### **Miwok-Costanoan**

Miwok-Costanoan, Miwokan, Eastern Miwokan, Sierra Miwok Miwok, Southern Sierra

### **Mixed Language**

Mixed language, French-Cree Michif

### **Mongolic**

Mongolic, Eastern, Oirat-Khalkha, Khalkha-Buriat, Mongolian Proper Mongolian, Halh

### **Muran**

Muran Pirahã

### **Niger-Congo**

Niger-Congo, Atlantic-Congo, Atlantic, Northern, Cangin Noon

Niger-Congo, Atlantic-Congo, Atlantic, Northern, Senegambian, Fula-Wolof, Fula Fulah

Niger-Congo, Atlantic-Congo, Atlantic, Southern, Mel, Temne, Baga Baga Koga

Niger-Congo, Atlantic-Congo, Atlantic, Southern, Mel, Temne, Baga Landoma

Niger-Congo, Atlantic-Congo, Atlantic, Southern, Mel, Temne, Temne-Banta Themne

Niger-Congo, Atlantic-Congo, Ijoid, Defaka Defaka

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo Proto-Benue-Congo

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid Proto-Bantu

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Gikuyu  
Narrow Bantu, Central, E, Kikuyu-Kamba (E.51)

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Chichonyi-  
Narrow Bantu, Central, E, Nyika-Taita (E.72) Chidzihana-Chikauma

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Kisi  
Narrow Bantu, Central, G, Bena-Kinga (G.67)

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Shambala  
Narrow Bantu, Central, G, Shambala (G.23)

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Bondei  
Narrow Bantu, Central, G, Shambala (G.24)

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Swahili  
Narrow Bantu, Central, G, Swahili (G.42)

- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Zigula  
Narrow Bantu, Central, G, Zigula-Zaramo (G.31)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Luguru  
Narrow Bantu, Central, G, Zigula-Zaramo (G.35)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Kami  
Narrow Bantu, Central, G, Zigula-Zaramo (G.36)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Kimbundu  
Narrow Bantu, Central, H, Kimbundu (H.21)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Haya  
Narrow Bantu, Central, J, Haya-Jita (E.22)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Ganda  
Narrow Bantu, Central, J, Nyoro-Ganda (E.15)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Luvale  
Narrow Bantu, Central, K, Ciokwe-Luchazi (K.14)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Lunda  
Narrow Bantu, Central, L, Lunda (L.52)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Bemba  
Narrow Bantu, Central, M, Bemba (M.42)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Chichewa  
Narrow Bantu, Central, N, Chewa-Nyanja (N.31)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Matumbi  
Narrow Bantu, Central, P, Matuumbi (P.13)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Makonde  
Narrow Bantu, Central, P, Yao (P.23)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Ndonga  
Narrow Bantu, Central, R, Wambo (R.22)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Xhosa  
Narrow Bantu, Central, S, Nguni (S.41)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Shona  
Narrow Bantu, Central, S, Shona (S.10)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Myene  
Narrow Bantu, Northwest, B, Myene (B.11)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Teke-Fuumu  
Narrow Bantu, Northwest, B, Teke (B.77)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Lingala  
Narrow Bantu, Northwest, C, Bangi-Ntomba (C.30)
- Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Likila  
Narrow Bantu, Northwest, C, Bangi-Ntomba (C.31)

Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Northwest, C, Bangi-Ntomba (C.32)	Bangi
Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Defoid, Yoruboid, Igala	Igala
Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Igbooid, Igbo	Igbo
Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Jukunoid, Central, Jukun-Mbembe-Wurbo, Jukun	Hõne
Niger-Congo, Atlantic-Congo, Volta-Congo, Kru, Eastern, Bete, Western	Godié
Niger-Congo, Atlantic-Congo, Volta-Congo, Kru, Western, Grebo	Grebo
Niger-Congo, Atlantic-Congo, Volta-Congo, Kwa, Left Bank, Gbe, Fon	Fon
Niger-Congo, Atlantic-Congo, Volta-Congo, Kwa, Nvo, Potou-Tano, Tano, Cen- tral, Akan	Akan
Niger-Congo, Atlantic-Congo, Volta-Congo, Kwa, Nyo, Potou-Tano, Tano, Guang, North Guang	Nkami
Niger-Congo, Atlantic-Congo, Volta-Congo, North, Adamawa-Ubangi, Ubangi, Sere-Ngbaka-Mba, Ngbaka-Mba, Mba	Dongo
Niger-Congo, Atlantic-Congo, Volta-Congo, North, Adamawa-Ubangi, Ubangi, Sere-Ngbaka-Mba, Ngbaka-Mba, Mba	Ma
Niger-Congo, Atlantic-Congo, Volta-Congo, North, Adamawa-Ubangi, Ubangi, Sere-Ngbaka-Mba, Ngbaka-Mba, Mba	Mba
Niger-Congo, Atlantic-Congo, Volta-Congo, North, Adamawa-Ubangi, Ubangi, Sere-Ngbaka-Mba, Ngbaka-Mba, Mba	Ndungu
Niger-Congo, Atlantic-Congo, Volta-Congo, North, Adamawa-Ubangi, Ubangi, Zande, Zande-Nzakara	Zande
Niger-Congo, Atlantic-Congo, Volta-Congo, North, Gur, Central, Northern, Oti- Volta, Western, Northwest, Dagaari-Birifor, Dagaari	Dagaare, Southern
Niger-Congo, Atlantic-Congo, Volta-Congo, North, Gur, Central, Northern, Oti- Volta, Western, Southeast	Dagbani
Niger-Congo, Atlantic-Congo, Volta-Congo, North, Gur, Central, Northern, Oti- Volta, Western, Southeast	Mampruli
Niger-Congo, Mande, Western, Central-Southwestern, Central, Manding-Jogo, Manding-Vai, Vai-Kono	Vai

### **Nilo-Saharan**

Nilo-Saharan, Eastern Sudanic, Nilotic, Eastern, Lotuxo-Teso, Teso-Turkana, Turkana	Turkana
Nilo-Saharan, Eastern Sudanic, Nilotic, Western, Luo, Southern, Luo-Acholi, Alur-Acholi, Lango-Acholi	Lango



Nilo-Saharan, Fur

Fur

### North Caucasian

North Caucasian, East Caucasian

Proto-East-Caucasian

North Caucasian, East Caucasian, Avar-Andic, Andic

Andi

North Caucasian, East Caucasian, Avar-Andic, Andic

Chamalal

North Caucasian, East Caucasian, Avar-Andic, Andic

Ghodoberi

North Caucasian, East Caucasian, Khinalugh

Khinalugh

North Caucasian, East Caucasian, Lak

Lak

North Caucasian, East Caucasian, Lezgif, Archi

Archi

North Caucasian, East Caucasian, Lezgif, Nuclear Lezgif, West Lezgif

Tsakhur

North Caucasian, East Caucasian, Nakh, Batsi

Bats

North Caucasian, East Caucasian, Nakh, Chechen-Ingush

Chechen

North Caucasian, East Caucasian, Tsezic, East Tsezic

Bezhta

North Caucasian, East Caucasian, Tsezic, East Tsezic

Hunzib

North Caucasian, East Caucasian, Tsezic, West Tsezic

Dido

North Caucasian, East Caucasian, Tsezic, West Tsezic

Khvarshi

North Caucasian, West Caucasian, Abkhaz-Abazin

Abkhaz

### Otomanguean

Otomanguean, East. Otomanguean, Amuzgo-Mixtecan, Mixtecan, Mixtec

Mixtec, Diuxi-Tilantongo

Otomanguean, East. Otomanguean, Amuzgo-Mixtecan, Mixtecan, Mixtec

Mixtec, San Miguel el Grande

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Amatlán

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Cajonos

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Chichicapan

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Choapan

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Coatecas Altas

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Isthmus

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Lachixío

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Mitla

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Ocotlán

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Quiquitaní-Quieri

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, San Juan Guelavía

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, San Vicente Coatlán

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec

Zapotec, Santa Inés Yatzechi

Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Santa María Quiogolani
Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Santiago Xanica
Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Santo Domingo Albarradas
Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Texmelucan
Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Tilquiapan
Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Xanaguía
Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Yalálag
Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Yatzachi
Otomanguean, East. Otomanguean, Popolocan-Zapotecan, Zapotecan, Zapotec	Zapotec, Zoogocho
Otomanguean, West. Otomanguean, Oto-Pame-Chinantecan, Chinantecan	Chinantec, Comaltepec
Otomanguean, West. Otomanguean, Oto-Pame-Chinantecan, Chinantecan	Chinantec, Lealao
Otomanguean, West. Otomanguean, Oto-Pame-Chinantecan, Chinantecan	Chinantec, Ozumacín
Otomanguean, West. Otomanguean, Oto-Pame-Chinantecan, Chinantecan	Chinantec, Palantla
Otomanguean, West. Otomanguean, Oto-Pame-Chinantecan, Chinantecan	Chinantec, Sochiapam
Otomanguean, West. Otomanguean, Oto-Pame-Chinantecan, Chinantecan	Chinantec, Usila
Otomanguean, West. Otomanguean, Oto-Pame-Chinantecan, Oto-Pamean, Pame	Pame, Central
Otomanguean, West. Otomanguean, Tlapanec-Manguean, Tlapanec-Subtiaba, Tlapanec	Me'phaa

### **Panoan**

Panoan, Mainline, Shipibo	Shipibo-Conibo
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### **Pomoan**

Pomoan	Pomo, Eastern
Pomoan, Western, Southern	Pomo, Central

### **Puinavean**

Puinavean	Dâw
Puinavean, Hupda	Hupdë

### **Ramu-Lower Sepik**

Ramu-Lower Sepik, Lower Sepik	Proto-Lower-Sepik
Ramu-Lower Sepik, Lower Sepik, Angoram	Angoram
Ramu-Lower Sepik, Lower Sepik, Chambri	Chambri
Ramu-Lower Sepik, Lower Sepik, Karawari	Tabriak

Ramu-Lower Sepik, Lower Sepik, Karawari  
 Ramu-Lower Sepik, Ramu, Ottilien, Watam

Yimas  
 Marangis

### Sahaptian

Sahaptian, Sahaptin

Yakama

### Salish

Salish, Central Salish

Halkomelem

### Sálian

Sálian

Sáiva

### Sino-Tibetan

Sino-Tibetan, Chinese

Chinese, Mandarin

Sino-Tibetan, Tibeto-Burman, Sal, Boro-Garo, Dimasa-Kokborok, Kok Borok

Kok Borok

Sino-Tibetan, Tibeto-Burman, Sal, Kuki-Chin-Naga, Angami-Pochuri

Naga, Sumi

Sino-Tibetan, Tibeto-Burman, Western Tibeto-Burman, Bodish, West Bodish,  
 Gurung-Tamang, Gurungic

Manangba

Sino-Tibetan, Tibeto-Burman, Western Tibeto-Burman, Himalayan, Central Hi-  
 malayan, Chepang-Bhujel

Chepang

Sino-Tibetan, Tibeto-Burman, Western Tibeto-Burman, Himalayan, Central Hi-  
 malayan, Newar

Newar

Sino-Tibetan, Tibeto-Burman, Western Tibeto-Burman, Himalayan, Kiranti, Eas-  
 tern

Chamling

### Siouan

Siouan-Catawban, Siouan, Mississippi Valley-Ohio Valley Siouan, Mississippi  
 Valley Siouan, Dakota

Lakota

Siouan-Catawban, Siouan, Mississippi Valley-Ohio Valley Siouan, Mississippi  
 Valley Siouan, Dhegihan

Omaha-Ponca

### South Bougainville

South Bougainville, Nasioi

Naasioi

### Tequilatecan

Tequilatecan

Chontal, Highland Oaxaca

### Totonacan

Totonacan, Tepehua

Tepehua, Tlachichilco

**Trans-New Guinea**

Trans-New Guinea, Finisterre-Huon, Huon, Eastern	Kâte
Trans-New Guinea, Kainantu-Goroka, Gorokan, Fore	Fore
Trans-New Guinea, Kainantu-Goroka, Gorokan, Kamano-Yagaria	Yagaria
Trans-New Guinea, Kiwaiian	Kiwai, Northeast
Trans-New Guinea, Madang, Croisilles, Pihom, Kumilan	Mauwake
Trans-New Guinea, Madang, Kalam-Kobon	Kalam
Trans-New Guinea, Madang, Rai Coast, Biyom-Tauya	Tauya
Trans-New Guinea, Marind, Nuclear Marind	Marind
Trans-New Guinea, West, Timor-Alor-Pantar, Alor-Pantar, Alor	Abui
Trans-New Guinea, West, Timor-Alor-Pantar, Alor-Pantar, Pantar	Teiwa
Trans-New Guinea, West, Timor-Alor-Pantar, Timor	Bunak

**Tsimishian**

Tsimshian, Nass-Gitksan	Gitksan
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**Tucanoan**

Tucanoan, Eastern Tucanoan, Bará-Tuyuka	Barasana-Eduria
Tucanoan, Eastern Tucanoan, Bará-Tuyuka	Tuyuca
Tucanoan, Western Tucanoan	Tanimuca-Retuarã

**Tungusic**

Tungusic, Southern, Southeast, Udihe	Udihe
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**Tupian**

Tupian, Tupí-Guaraní	Proto-Tupí-Guaraní
Tupian, Tupí-Guaraní, Tenetehara, Tenetehara	Guajajára

**Turkic**

Turkic, Southern, Turkish	Turkish
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**Uralic**

Uralic	Hungarian
Uralic, Finnic	Finnish
Uralic, Sami, Eastern	Saami, Inari

**Uto-Aztecan**

Uto-Aztecan	Proto-Uto-Aztecan
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Uto-Aztecan, Northern Uto-Aztecan	Hopi
Uto-Aztecan, Northern Uto-Aztecan, Numic, Central	Comanche
Uto-Aztecan, Northern Uto-Aztecan, Numic, Southern	Ute-Southern Paiute
Uto-Aztecan, Northern Uto-Aztecan, Takic	Luisiño
Uto-Aztecan, Southern Uto-Aztecan, Corachol-Aztecan, Cora-Huichol	Huichol
Uto-Aztecan, Southern Uto-Aztecan, Corachol-Aztecan, Cora-Huichol, Cora	Cora, El Nayar
Uto-Aztecan, Southern Uto-Aztecan, Corachol-Aztecan, Core Nahuatl, Nahuatl	Nahuatl, Eastern Huasteca
Uto-Aztecan, Southern Uto-Aztecan, Pimic	Tohono O'odham

**Yanomaman**

Yanomaman	Yanomamö
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**Yeniseian**

Yeniseian	Ket
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**Yukian**

Yukian	Wappo
Yukian, Core Yukian	Yuki

## APPENDIX IV. SUMMARY IN BASQUE/LABURPENA EUSKARAZ

**Sarrera**

Tesi hau biziduntasunak munduko hizkuntzen flexio-morfologian eragiten dituen efektuei eskainitako lan tipologiko monografikoa da; hartara, alderdi deskribatzailetik eta konparatibotik ekiten dio gaiari. Funtsean hiru alderdi behatu ditut tesian: Batetik, bizidun/bizigabe islatzeko hizkuntzaz hizkuntza baliatzen diren teknikak deskribatu ditut, bestetik biziduntasunak zein kategoria gramatikali eragin diezaiokeen aztertu dut, eta azkenik hizkuntzetan tasun gramatikalak gauzatzeko biziduntasunak izan dezakeen eraginari begiratu diot. Hori baino lehen, lan horiek burura eramateko, beste bi alderdiri erreparatu diet: alor metodologikoan zenbait erabaki hartu eta deskribatu ditut batetik, eta bestetik biziduntasunaren definizio bat hautatu dut dut, baita biziduntasunaren portaeraz orokortze zenbait pausatu ere.

**Metodologia**

Gatozen lehenik alor metodologikora. Lan hau barietate ikerketa bat da eta hizkuntza-aniztasuna sailkatzea du xede, munduan existitzen diren patroiak identifikatuz. Horretarako biziduntasuna positiboki islatzen duten 379 sistema linguistikotako corpora eratu ditut. Corpusetik ateratako emaitza baldintzatu dezaketen murriztapen bibliografikoak, genetikoak, arealak, tipologikoak eta kulturalak saihesten ahalegindu naiz. Dena dela, bistakoa denez, biziduntasunaren ikuspegitik hizkuntza familiarik interesgarrienek edo ikertuenek pisu handiagoa dute corpusean, baina hori ez da arazo aniztasuna dokumentatzea xede duen lanetan.

Datuak iturri bibliografikoetatik atera dira beti; ondorioz, emaitzek asko zor diote iturri horiek darabilten metodologiari eta ikuspegiari, ezinbestean. Hori ezin saihestuz, prestigiozko iturri modernoek izan dute lehentasuna.

Hizkuntza tipo, area eta familia ugari islatzeaz gain, askotariko hizkuntza sistemak sartu ditut: egungo hizkuntzak, desagertutakoak, pidginak eta kreoleak, hiztun ugari dituztenak txikiagoekin batera, protohizkuntzak...

**Biziduntasuna definitzen**

Datu basea eratu ahal izateko, biziduntasunaren definizio zehatza finkatu behar izan dut, terminoaren erabilera zein izan den ikertuz. Erakutsi dudanez, unibertsoko entitateen sailkapena eta hierarkizazioa, biziduntasunaren araberakoa bereziki, gizateriaren oinarri

kultural eta filosofikoen parte da. Grezia Klasikoan ageri da dagoeneko, eta ondoren, Erdi Aroan, garatu zen *continuum* edo hierarkia kontzeptua bizidunen eta bizigabeen arteko banaketa bitar hutsetik haratago. Hierarkiaren katebegiak arrazoi kulturek erlijiosoek edo unean unekoek baldintzatzen dituzte, biologiak baino gehiago. Horren ondorioz, hizkuntzaz hizkuntza hierarkiaren barneko zatikatze kopurua alda daiteke, izakiak hainbat modutan sailka daitezke, edo izaki batek hierarkian duen posizioa behin-behinekoa izan.

Biziduntasunaren kontzeptua hizkuntzalaritzan XIX. mendean garatu zen, tipologiak eta munduko hizkuntzen deskribapenak ere aitzina jo zutenean. Ondoren etorri ziren zedarrilari-zenbaitek, besteak beste Silverstein eta Dixonenak, ordea, aurretik egindako ekarpenak, interesgarriak asko, lausotu zituzten.

Biziduntasunaren kontzeptua hizkuntzalaritzan zenbait fenomenoren azterketari aplikatu izan zaio: kasu-markatzeari, diskurtsoaren analisiari, topikotasunari, erreferentzialtasunari, numeroari eta, bistan dena, generoari beste zenbaiten artean, baina lan gutxi izan dute biziduntasuna bera ikergai; era induktiboan baliatu izan da, datu zehatz batzuen azalgarri.

Biziduntasuna zenbaitetan banaketa bitarretik haratago doan *continuum* edo hierarkia dela erakutsi dut. Biziduntasun Hierarkia 'hedatua' deritzon, gizakiak, izaki bizidunak eta bizigabeak kontuan hartzen dituen biziduntasun biologikoaz gain, izakien beste tasun zenbait ere sartzen dira, berezkoak izan ala ez. Hierarkia hedatuan parte hartzen duten azpi-hierarkiak zein diren esateko unean, alta, ez dago hizkuntzalarien artean batasunik. Han eta hemen hizkuntzalariek aipatutakoak bateratu ditut, eta hiru multzotan sailkatu: berezko hierarkiak, diskurtsoari dagozkionak eta behin-behinekoak. Lehenean izaki bizidunek berezko eta behin betiko dituzten propietate biologikoak hierarkizatzen dira, baita izaki horiei gizakiek kulturalki ezarritakoak ere. Hierarkia diskurtsiboak ez daude izakien berezko propietateekin lotuak, eta diskurtsoaren arabera aldakorrak dira. Behin-behineko tasunen multzoak izakien berezkoak baina behin betikoak ez diren tasunetan oinarria duten hierarkiak hartzen ditu.

Hiru multzo horietan sartzen diren hierarkia guztiak batzen dituen elementua definitzea ere ez da izan lan erraza. Autore gehienek biziduntasuna ikuspegi kognitibo antropozentrikotik dakusate, esanaz norbera dela hierarkia guztien buru eta diskurtsoaren erdigune, eta gainerako izakiak norberak horiekiko duen enpatiaren arabera sailkatzen dituela. Enpatia maila hori norberak bere zentzumenetatik jasotzen duen informazioaren, duen ezagutzaren eta oinarri kulturalen arabera definitzen du. Hori horrela bada, lehen begi

kolpean biziduntasuna ez dirudi kontzeptu unibertsala; baina hizkuntzaz hizkuntza ageri zaigula ikusita eta gizakiok enpatia modu antzekoan darabilgula kontuan harturik, unibertsal izateko argudioak badirela aldarrikatu dugu, abiapuntua beti baita norbanakoa, nahiz eta hizkuntza batetik bestera unibertsal horren gauzatzean aldeak izan.

Biziduntasun Hierarkia hirutarra izanik ere (gizakiak > bizidunak > bizigabeak), hizkuntzetan oso bakan islatzen da hala; usu bitarra da (gizakia/ez-gizakia ala biziduna/bizigabea). Gehienetan zatikatze hirutarra paradigma edo datu desberdinak gurutzatetik baizik ez daiteke idoki. Horrezaz gain, erakutsi dugu zatikatze bitarra edo hirutarra izan, horrek ez dakarrela halabeharrez hierarkia edo mailakatze bat. Areago, hierarkizazioa hizkuntzalariak datuak edo hizkuntzak erkatuta egindako abstrakzio bat da frankotan, hiztunak barne gramatikan duen nozioa bainoago.

Tesi honen funtsezko ardatza izan da bi biziduntasun mota definitzea: biziduntasuna baldintza gisa ala tasun semantiko gisa. Bigarrena bi morfemen arteko aldea bizidun/bizigabe baizik ez denean agertzen da; bigarrena, bizidun/bizigabe bereizketak beste tasunen (numeroa, kasua...) gauzatzean edo tasun horiek ageri dituzten balioetan (plurala, akusatiboa...) ere eragiten duenean azaltzen zaigu. Horekin batera, erakutsi dut hierarkian mozketak non egiten den, edo biziduntasuna baldintza edo tasun semantiko gisa ageri den, ez direla hizkuntza osorik baldintzatzen duten gauzak, fenomeno bakoitzari dagozkionak baizik.

Biziduntasuna fenomeno baten azalbide gisa darabilten lan gehienak induktiboak dira; ondorioz, Biziduntasun Hierarkia aztergai dituzten datuetara doitzen dute, beharren arabera. Tesi hau, alabaina, gainerako lanak ez bezala, deduktiboa da: biziduntasunaren definizio zehatza finkatuta, munduko hizkuntzetan kausitzen diren biziduntasunaren agerpenak dokumentatu nahi ditu. Horretarako arazo da biziduntasunaren definizio bateratu baten falta, eta zeregin horri ere heldu diogu. Izakien berezko propietateetara mugatu dugu definizioa, biziduntasun biologikoa ardatz hartuta (gizakiak > bizidunak > bizigabeak), eta flexio-morfologiari eragiten dioten fenomenoetara mugaturik.

### **Teknikak**

Biziduntasuna markatzeko teknika morfologikoak eta suprasegmentalak identifikatu ditut, baita horien arteko konbinazioak ere. Izaki bizidunak bizigabeak baino markatuagoak izan ohi dira beti. Biziduntasuna tasun semantiko gisa ageri denean bizidunek material morfologiko gehiago izaten dute, eta baldintza gisa azaltzen zaigunean, bizidunek tasun



gramatikal gehiago edo tasun horien balio gehiago bereizten dituzte, material morfologikoa gehituaz usuen.

Bi talde nagusitan bereizi ditut teknikak: material morfologikoa eransten edo kentzen duten teknikak batetik, eta materiala gehitu edo kendu gabe, eraldatzen dutenak bestetik. Badira, gero, bigarren mailako teknikak ere.

Material morfologikoa eransten edo kentzen duten teknikek biziduntasuna tasun semantiko gisa ageri denean balia daitezke esate baterako, [ $\pm$ bizidun] balioa baizik ez duen morfema bat gehitu edo kenduz, baina normalean gehitutako edo kendutako materialak beste tasun gramatikal batzuk ere markatzen ditu.

Aipatu teknika horien artean afixazioa da ohikoena eta, bereziki, atzizkien erabilera. Elementu askeen eta klitikoaren erabilera urriagoa da; gainera, iturriek ez dute fusio maila zein den beti ongi deskribatzen. Horrekin batera, biziduntasunak morfema baten fusio mailan ere eragin dezake. Orobat, material morfologikoa ezabatzea izaki bizigabea biziduna baino markatuagoa denean gertatzen da, eta ez da egoera ohikoegia.

Material morfologikoa, gehitu edo kendu baino, aldatu egiten denean, egitura morfologiko bat edo morfema bat beste batek ordezkatzen du, berdin biziduntasuna tasun semantiko gisa zein baldintza gisa agertu. Normalean, ez beti, horrelakoetan bizidunendako formek tasun gehiago islatzen dituzte bizigabeenak baino.

Bigarren mailako teknika berezia dugu erreduplikazioa, ez baitu material berria gehitzen edo dagoena ordezkatzen, biderkatzen baizik. Oso bakan ageri da, eta forma bizigabeekin batik bat. Zaku honetan sartu ditut, bestalde, teknika morfofonemikoak (bokal aldaketak, sudurkaritzeak, tonua, azentua...); izan ere, tipologikoki interesgarriak dira, eta maiz teknika morfologikoekin konbinaturik azaltzen zaizkigu. Bigarren mailako beste teknika bat morfemen hurrenkera da, izaki bizidunekin komunztatzen duten elementuak egon ohi baitira errotik hurbilago. ‘Teknika konbinatu’ deritzet biziduntasuna kodetzeko egitura morfologikoaren elementu desberdinetan teknika bana baliatzeari. ‘Teknika misto’ deitu diet, haatik, teknika batek baino gehiagok morfema berari eragiten diotenean aldi berean.

### **Kategoriak**

Biziduntasuna hemezortzi kategoriatan bederen islatu daiteke, nire datu baseari so. Aberastasun hori, batik bat, hizkuntza Txinantekoei zor zaie. Edozein gisaz, biziduntasuna islatzen duen elementuaren kategoria finkatzea ez da beti lan erraza; erabilitako teknikak eta morfemen zatigarritasunak eragiten du horretan. Teknika gisa aldaketa baliatzen denean,

biziduntasunak aldaketa jasan duen morfema erasaten du ezbairik gabe, baina morfema hori ez da beti erraz identifikatzen eta isolatzen. Teknika gehikuntza edo kenketa denean, biziduntasunak zein elementu erasaten duen jakitea ere ez da aise: gehitutako morfema ala morfema hartzen duen elementua? Bigarrenaren alde lerratu naiz, batetik, informazioa aberatsagoa baita eta, bestetik, morfema berri bat gehitzeak halabeharrez tasun gramatikal berriak markatzea dakarrenez, horiek hurrengo kapituluan aztertu direlako. Hori gutxi balitz, elementu baten kategoria zein den datu-iturriek baldintzatzen dute erabat, eta ez dagoz beti horretan bat, edo ez dute xeheki esaten.

Izenordainetan eta determinatzaileetan usu agertzen da bizidun/bizigabe bereizketa. Hizkuntza batean biek isla dezakete, edo bietako batek, lehenak maizenik. Bestalde, biziduntasunaren arabera bereizketa kategoria horen azpisail batean bakarrik islatzen da batzuetan: singularrean bakarrik, edo pluralean, gradurik urrunenean erakusleen kasuan... zatikatze hirutarra (gizaki/bizidun/bizigabe), oso gutxitan ageri bada ere, kategoria hauetan aurkitzen da arduenik. Izenordain galdetzaileek maiz egiten dute bizidun/bizigabe bereizketa, eta posesiboen kasuan, jabearen biziduntasunak baldintzatzen ohi du bereizketa.

Izenek ez ohi dute biziduntasunaren efeturik erasaten, hura kontrolatu baizik. hala ere, biziduntasunak izenok morfema zenbait har ditzaten ere baldintza dezake, halaber numero, genero edo kasu markak, izenordainak, edo bestelakoak. Adjektiboek ere har ditzakete horrelakoak, eta adjektibo atributiboak eta predikatiboak ez dira beti berdinduz portatzen.

Numero markak bizidunekin gehiago agertzen dira bizigabeekin baino eta zenbakiek ere isla dezakete biziduntasun bereizketa, edo biziduntasunaren arabera bestelako tasunak markatu, bereziki zenbaki baxuak direnean.

Aditzak biziduntasun bereizketaren ondorioak hainbat modutan paira ditzake. Erro desberdinak ager daitezke, edo morfologia ezberdina izan subjektuaren edo objektuaren biziduntasunaren arabera. Tasun batzuk kontrolatzailea biziduna denean bakarrik islatzen dira izenordain enklitikoaren bidez, eta batzuetan perpauseko bi elementuren arteko biziduntasun erlatiboak ere eragina du konfigurazio morfologikoan.

Genero markek eta klasifikatzaileek biziduntasuna kodetu dezakete huts-hutsean edo, horretaz gain, bestelako genero bereizketak ere egin. Gainera, biziduntasuna baldintza gisa ere ager daiteke horietan, marka horiek bestelako tasunak ere islatzen badituzte eta horien agerrera biziduntasunak kontrolatzen badu, edo biziduntasunaren eskutan badago genero marka batek zein balio hartu behar duen. Orobat, hizkuntza berean biziduntasunaren eragin desberdina duten bi genero sistema egon daitezke batera. Bestalde, kategoria batean

bi genero marken artean komunztadura gatazka dagoenean, biziduntasunak ebatz dezake auzia.

Kasuei so, biziduntasuna tasun semantiko gisa ageri da kasu marka batek bi forma dituenean; bestalde, biziduntasunak kasu baten balioa edo paradigma baten sinkretismoak baldintza ditzake. Kasu gramatikalak dira arduen biziduntasunaren efektuak pairatzen dituztenak, baina postposizioen eta zeharkako kasuen adibideak ere badira.

### **Tasunak**

Biziduntasunak generoan, numeroan, pertsonan eta kasuan nola eragiten duen ikertu dugu.

Generoari gagozkiola, biziduntasuna tasun semantiko funtsezkoa da hizkuntza askoren genero sistemen konfigurazioan. Genero sistema semantikoek bizidun/bizigabe bereizketa hutsa egin dezakete, edo bestelako tasun semantikoak ere baliatu. Sistema mistoetan, beste aldetik, biziduntasunarekin batera bestelako tasun ez semantikoek (fonologia, morfologia, distantzia...) ere baldintzatzen dute genero sistema, baina izaki bizidunak ohi dira tasun semantikoei atxikienak. Genero sistema konbinatuetan tasun semantikoak eta ez semantikoak ageri dira, baina sistema banatuetan eta kategoria desberdinetan, elkar zapaldu gabe.

Genero sistema semantikoetan biziduntasuna da izan ohi da tasun semantiko garrantzitsuena eta, horrekin batera, landareendako genero bat agertu ohi da, neurri edo itxuran oinarritutakoa, eta beste. Sexuaren araberako genero sistemek izaki bizidunak sailkatu ditzakete, baina kasu askotan izaki bizigabeek ere izan ohi dute maskulino/femenino bereizketa: horrelakoetan terminoa lausoki ala oker baliatzen dela argudiatu dut.

Biziduntasunean oinarritutako genero sistema puruenetan, ere izaki batzuk ez zarraizkie irizpide biologikoei genero batean edo bestean kokatzeko orduan. Erakutsi dudanez, izaki bat “ez dagokion” generoan ager daiteke arrazoi kultural zein pragmatikoengatik, edo sail horretako gainerako elementuekin propietateren bat partekatzen duelako. Ardatz diakronikoan, erabat semantikoak ez ziren eta egun biziduntasunaren arabera diharduten duten genero sistema zenbaiten bilakabidea aztertu dut.

Biziduntasunak genero komunztadura ere baldintza dezake, semantikoak ez diren genero sistemetan ere. Genero marken agerrera baldintza dezake, esaterako, baina baita genero marka batek hartu beharreko balioa ere. Genero sistema handiak dituzten

hizkuntzetan, genero desberdineko bi izakik kategoria gramatikal berean komunztatu behar dutenean, gatazka biziduntasunak konpontzen du zenbaitetan, maiz izaki biziduna izanik komunztadura ezartzen duena, bizigabearen kaltetan.

Ondoren, bizidun/bizigabe bereizketa tasun gramatikal baten balio batzuetan bakarrik isla daitekeela erakutsi dut. Numeroari so, pluralean aurkitzen da bereizketa gehien. besteak beste, pertsonaren, sexuaren, denboraren edo bestelakoen arabera mugaturik diren bizidun/bizigabe bereizketak ere badira.

Numero tasunari ere eragiten dio biziduntasunak. Normalean, izaki bat zenbat eta bizidunagoa izan, orduan eta aukera gehiago izanen ditu numero bereizketak markatzeko. Bereizketa hori izenordainetan, determinatzaileetan, numeraletan, genero marketan, marka ebidentzialetan eta bestelakoetan ikus daiteke. Adjektiboetan ere islatzen da biziduntasunak baldintzatutako bereizketa hori, eta adjektibo predikatzaile eta atributiboek ez dute beti portaera bera agertzen. Aditzean ere ikusten da numero markatzeari dagokion banaketa, subjektuaren edo objektuaren biziduntasunak baldintzatuta, nahiz eta definitua edo espezifikoa den ere esanguratsua izan.

Esan dugunez, izaki bat bizidunagoa den neurrian, numero markaketa egiteko aukera handiagoa du. Ez markatzetik markatzerako *continuum* horretan, ohikoa da tartean izaki zenbaitek hautazko markaketa izatea; horiek baino bizidunagoek halabeharrez markatzen dute numeroa, eta horiek baino bizigabeagoek, ordea, ez. Biziduntasunarekin batera, espezifikotasuna, zenbakarri izatea, egiletasuna, izen mota, kasua, hitz-ordena eta bestelako baldintzak ere gurutzatzen dira. Bestetik, izaki bizidunak ezartzen ohi du numero komunztaduraren gaineko kontrola, komunztadura gatazkak daudenean.

Izenean numeroa markatzeko beharra eta beste kategorietan komunztadura egitekoa ez dira beti Biziduntasun Hierarkiaren puntu berean elkartzen: normalean, komunztadurak markaketak baino beherago ezartzen du mozketak puntua hierarkian.

Gisa berean, numero-balio zenbait, duala edo paukala kasu, izaki bizidunekin ohikoagoak dira besteekin baino. Badira, gainera, numero marka irauliak, bizidunekin singularra eta bizigabeekin plurala markatzen dutenak, edo alderantziz.

Numeroa eta generoa batzen dituzten formek sinkretismo bitxiak ageri dituzte. Forma berak, adibidez, genero biziduna eta numero plurala marka ditzake, baita genero bizigabea eta numerorik eza ere.

Pertsona tasuna ardura islatzen da numeroarekin eta generoarekin batera, morfema berean. Beste behin, bizidunek egin ohi dute pertsona komunztadura bizigabeek baino maizago. Biziduntasunak pertsona markatzen duen morfemaren agerrera baldintza dezake. Pertsona tasun horren kontrolatzaileak objektu zuzen bizidunak izan ohi dira, edo subjektu bizidunak perpaus iragangaitzetan, baita bestelakoak ere.

Pertsona beti markatzen denean, biziduntasunak ezar dezake pertsona komunztadura irizpide semantikoen edo arbitrarioen bidez egin behar den, bizidunak izanik irizpide semantikoei atxikien ageri zaizkigunak. Pertsona tasunaren kasuan ere, espezifikotasuna, prominentzia eta bestelako elementuek baldintza dezakete, orobat, pertsona komunztadura biziduntasunarekin batera.

Obiazioari gagozkiola, biziduntasunak izaki bizidunendako atxiki dezake hurbil/obiatibo bereizketa, edo zein argumentu den zuzena eta zein obiatiboa zehaztu.

Kasu tasunean ere badu biziduntasunak zeresanik. Aferari ekiteko hiru ikuspegi bereizi ditut: semantikoak rol tematiko batek zein kasu hartu behar duen aztertzen du; sintaktiko/funtzionalak perpauseko argumentu bakoitzari zein kasu dagokion begiratzen du eta morfologikoak paradigmek behatzen die, eta bertan ageri diren kasuen sinkretismoei, rol semantikoei edo funtzio sintaktikoei begiratu gabe. Ikuspegia datu iturriek baldintzatzen baitute, ikuspegi sintaktiko/funtzionala eta morfologikoa hautatu ditugu gurerako.

Hurbilpen sintaktiko/funtzionaletik abiatuta, nominatiboa, ergatiboa edo kasu zuzena hartzen ez duten subjektu bizigabeak aurki ditzakegu. Horretan, berriz ere, beste eragile zenbaiten esku-hartzea ere kontuan hartu behar da: denbora/aspektua, aditzaren semantika, egilearen inplikazio maila, eta beste. Markatzeaz haratago, subjektuak zein kasu hartu behar duen ere baldintza dezake biziduntasunak. Bizidunek ergatiboa edo nominatiboa hartzen badute, instrumentala edo oblikua bizigabeendako da.

Objektu zuzenari ere eragiten dio biziduntasunak, nahiz eta hor sartzen diren fenomeno guztiak ezin diren “Objektuaren Markatze Bereizgarriaren” adibidetzat jo, azaldu dudanez. Oso ohikoa da objektu zuzen bizidunek baizik ez hartzea kasu markarik, baita ergatibitate erdibituko kasuetan ere. Objektuaren markatzean ere kontuan hartzekoa da, subjektuenekin bezala, beste faktore zenbaiten eragina.

Objektu zuzen bizidunak eta zehar objektuak frankotan marka bera partekatzen dute, baita objektu zuzen bizigabeak eta subjektuak ere, baina objektu zuzen bizidunaren markak bestelako funtzioak ere izan ditzake. Markatzea hautazkoa denean, Biziduntasun Hierarkia aplikagarria da, bizidunak izanik maizenik markatzen direnak.

Zehar objektuen marken kasuan zaila da jakitea biziduntasunak eraginik baduen ala marka ezberdinek rol semantiko desberdinak kodetzen dituzten egiazki. Bistan denez, hemen lehen ikuspegiari lotu naitzaio. Zehar objektua prototipikoki biziduna baita, kasu honetan bizigabeak izan ohi dira markatuenak. Bestela biziduntasunak baldintza dezake zehar objektuari zein kasu marka dagokion. Bestalde, biziduntasunak objektu zuzenaren eta zehar objektuaren markatzea baldintza dezake batera, eta are bi horiena eta subjektuarena ere.

Kasu gramatikaletatik landa, bestelako kasu zirkunstantzialei ere eragin diezaike biziduntasunak. Zuzen/oblikuo markaketa baldintza dezake, edo kasu lokatiboak edo instrumentalak bizidunei eransterakoan zailtasunak sortu.

Zenbaitetan bi argumenturen biziduntasun erlatiboa garrantzitsua da kasua markatzerakoan; normalean, subjektuaren eta objektuaren, edo osagarri zuzen eta zeharkakoaren artekoa. Objektuaren biziduntasunak baldintzatzen ohi du subjektuaren markatzea, nahiz eta batzuetan kontrakoa gertatu. Bestalde, zehar objektua biziduna denean objektuak ez ohi du markarik hartzen. Gainera, markatze zuzena/iraulia darabilten sistemetan, subjektuaren eta objektuaren biziduntasun erlatiboak egiten du markatze mota baten edo besteren alde.

Biziduntasunaren efektuak kasu sisteman Istik kanpo ere kausi daitezke, aditzean: kasuen komunztaduran, egitura pasiboak sortzeko unean edo morfologia iragankor/iragangaitz txandaketetan.

Beste alde batetik, bigarren hurbilpenak, morfologikoak, agerian utzi du ergatiboa eta instrumentala sinkretikoak izan daitezkeela bizigabeentzat, bizidunek ergatibo marka propioa izanik. Batzuetan Biziduntasun Hierarkiaren erdiko postuetan dauden izakiek txandaketa ageri dute eta forma sinkretikoa zein beregaina hauta dezakete. Beste hizkuntza batzuek ez dute sekula ergatibo beregainik, baina sinkretismoak aldatzen dira paradigma bizidunetik bizigabera.

Akusatiboak, aldiz, nominatiboarekin egiten du bat bizigabeen kasuan, eta forma beregaina izan ohi du izaki bizidunei atxikitzean. Forma autonomorik ez duenean, akusatibo bizidunak datiboarekin edo gramatikala ez den bestelako kasu batekin egiten du bat usu. Ez dira gutxi, beste alde batetik, paradigma osora hedatzen ez diren sinkretismoak: kategoria gramatikalaren, diskurtsoaren, topikotasunaren eta bestelakoen araberako sinkretismo patrioiak ere badira.



