# ONE-PLACE AND TWO-PLACE PREDICATES THAT CONCERN THE UNACCUSATIVE HYPOTHESIS AND THE TYPOLOGICAL CLASSIFICATION OF LANGUAGES

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# Abstract<sup>1</sup>

My research explores the predicate-argument structure of unergatives (cough, dream, float, run, work...) and questions their ontological status as a primitive type of intransitive verb (contra the Unaccusative Hypothesis: Perlmutter 1978; Burzio 1986) or transitive verb (contra Hale and Keyser 2003). For instance, unergatives are transitive in the Basque language, as object agreement and light verb constructions show, among other morphosyntactic evidence. The predictions arising from an ontological commitment are falsifiable in view of the typological classification of languages. If we consider unergatives intransitive, we eliminate split-intransitive languages like Basque. On the other hand, considering unergatives transitive eliminates accusative and ergative languages like English or Dyrbal, where unergatives behave as intransitive verbs. Hence, unergatives are transitive or intransitive on a language particular basis. This prevents an ontological commitment but permits a more articulate classification of languages. The accusative and ergative types derive from languages where unergatives are intransitive. When unergatives are transitive, a split-intransitive type like Basque may emerge. A split-intransitive language with transitive unergatives marks transitivity by discriminating the object of transitives (accusative) or subject of transitives (ergative). Unergatives find a parallel case in reflexives, expressed transitively or intransitively across languages and even inside the same language (Basque, Italian).

### A note on terminology

This note defines and motivates the use of the less ambiguous technical words 'one-place' and 'two-place' predicate to stand in for the overloaded concepts of 'intransitive' and 'transitive' verb, respectively.

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My article questions that certain verbs should be considered one-place or twoplace predicates for all languages. By the label *one-place predicate* I mean *verb that requires one argument* (e.g. 'arrive' in English as in '<u>The letter</u> arrived yesterday', where the argument is underlined) and by *two-place predicate* I mean *verb that requires two arguments* (e.g. 'eat' in English as in '<u>The student</u> ate <u>an apple</u> during the break'). Some examples of the verbs being considered are listed in (1).

(1) blow, cough, crawl, dance, dive, dream, float, fly, run, speak, walk, work...

The verbs in (1) have been referred to in the literature with different labels that ultimately signify that they are one-place predicates or two-place predicates. For instance, the Unaccusative Hypothesis (Perlmutter 1978; Burzio 1986) and its supporters (see Sorace 2000 and references therein) generally name the verbs under scrutiny *unergatives* and consider them one-place. Hale and Kayser (2003) also use the term unergative but they consider the same verbs two-place given some cross-linguistic evidence where '<u>The smoker</u> coughed' may be expressed in other languages as something similar to '<u>The smoker</u> did (a) cough'. Accordingly, the word *intransitive* may be equivalent to unergative in *Italian Syntax* (Burzio 1986), while the word *transitive* may stand in for unergative in *Prolegomenon to a Theory of Argument Structure* (Hale and Keyser 2003).

In what follows, I employ *one-place* and *two-place* as defined at the beginning of the first paragraph instead of *intransitive* and *transitive*. I often use one-place and two-place to translate or make the meaning of other terminological words in a given context explicit for the sake of clarity of exposition (e.g. unergative = one-place verb with an external argument according to the Unaccusative Hypothesis). To avoid ambiguity, I reserve the terms *subject* and *object* for two-place predicates only. When employed with two-place verbs, subject means external argument and object means internal argument. I maintain the label *unergative* to refer to the verbs exemplified in (1 above) because this term is ambiguous (or open to debate) regarding the one-place or two-place status of these verbs. This is, precisely, the research question that I tackle in my article.

#### 1. Introduction: two-place unergatives in Basque

Negar egin dut Garrasi egin dut Kosk egin dut

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This section presents data from Basque that question the ontological commitment to unergatives as a primitive type of one-place verb (i.e. in the Unaccusative Hypothesis).

The core of my proposal is given in the examples (1) and (2) from Basque. The first example set provides two verbs assumed one-place (1a: arrive; 1b: dream) and the second example a verb assumed two-place (2: finish). While the examples in (1)

have only one argument on the surface, 'the girl' in (1a) is marked like the object of a two-place, and in (1b) 'the girl' is marked like the subject of a two-place (see 2 for reference). The meaning of the glosses can be consulted in a list of abbreviations before the reference section.

- a. <u>Neskatil-a</u> ailega-tu da Girl-Abs.Sg arrive-Per be.3Sg 'The girl has arrived'
  - b. <u>Neskatil-ak</u> ames-tu du Girl-Erg.Sg dream-Per have.3Sg.3Sg 'The girl has dreamt'
- (2) <u>Neskatil-ak bere izozki-a</u> amai-tu du Girl-Erg.Sg her ice-cream-Abs.Sg finish-Per have.3Sg.3Sg 'The girl has finished her ice-cream'

The case marking facts observed in the above examples (i.e. -a, -ak) may sustain the claim in the Unaccusative Hypothesis (Perlmutter 1978; Burzio 1986) that one-place predicates are of two primitive types. The first type has an internal argument and usually goes by the name of *unaccusative* verb in this theory; the second type has an external argument and is normally referred to by the term *unergative* verb<sup>2</sup> (a one-place predicate in the Unaccusative Hypothesis). Indeed, the argument of the verb in (1a) bears the same case mark as the *object* of the twoplace (i.e. -a); and the argument of the verb in (1b) bears the same case mark as the *subject* of the two-place (i.e. -ak). Therefore, in these examples case marking correlates with syntactic function, as the Unaccusative Hypothesis predicts; accordingly, we can identify the verb in (1a) as unaccusative and the verb in (1b) as unergative (see Laka 1993, 1995).

Further exploration of the data in (1) reveals additional differences between unaccusative and unergative verbs. These differences concern auxiliary selection and verbal agreement. Unaccusatives require auxiliary *be*; unergatives *have*. Unaccusatives show object agreement; unergatives subject and object agreement. This second difference reveals the internal status of the argument of unaccusatives in Basque and is consistent with case marking, in support of the Unaccusative Hypothesis. Similarly, subject agreement in unergatives points to the external status of the argument. This is again coherent with case marking facts and thus also upholds this theory. On the other side of the coin, however, object agreement is not predicted for the unergative verb, for unergatives are assumed to be a primitive type of one-place verb with an external argument.

A comparison between (1) and (2) reveals that unergatives resemble two-place verbs for auxiliary selection and verbal agreement. The auxiliary *have* agrees for number and person with two arguments in (1b) and (2). However, the unergative

<sup>&</sup>lt;sup>2</sup> I am going to use the terms unaccusative and unergative consistently in my article to avoid confusions in the use of terminology. This usage is in agreement with Perlmutter (1978). Any other set of two labels would be equally valid.

verb (1b) does not seem to have a second argument. If unergatives were two-place predicates, object agreement in the auxiliary would be justified. A paradigm elaborating on the agreement system with auxiliaries *be* and *have* is given in an appendix before the reference section, showing that Basque auxiliaries require to agree with all arguments of the verb.<sup>3</sup>

The argument agreement facts in the auxiliary of unergatives do not conform to the predictions arising from the Unaccusative Hypothesis. Case-marking and subject agreement facts support the idea that the argument of unergatives is external. These facts, however, have nothing to say about the presence or absence of an internal argument in unergative verbs. Argument agreement in the auxiliary does. Object agreement in (1b) indicates licensing of an internal argument in unergatives. Note that positing the existence of an internal argument in unergative verbs does not contradict the status of their subject argument as external; on the contrary, it strengthens it. On the other hand, the status of unergatives as a primitive type of one-place verb is brought into question.

Following this line of evidence, it is worth noting that some unergative verbs have analytic counterparts consisting of a noun and the verb *do* (not as a main verb but as a *light* verb in an auxiliary role). In these constructions a second argument surfaces, even though it does not bear case markers (see Ortiz de Urbina 1989 and references therein). An example of [noun do] unergative is given in (3).

(3) <u>Neskatil-ak amets</u> egi-n du Girl-Erg.Sg dream do-Per have.3Sg.3Sg 'The girl has dreamt'

The similarities observed between unergatives (1b) and two-place predicates (2) remain unaltered in [noun do] unergatives (3); to be exact, [noun do] unergatives also require ergative case on their subject, auxiliary *have*, and indicate agreement with a subject and an object. I provide additional information about [noun do] unergatives in section 2 concerning cases of discontinuous constituency between the noun and the verb *do*, as attested in questions and focus in declarative sentences, which proves that the noun has an independent object status.

In view of examples (1) through (3), the thesis that unergatives are a primitive type of one-place predicate is not tenable. If this were the case, then Basque would lack this primitive verb type, which surfaces as a two-place predicate in the form of a participle (e.g. *ames-tu* in 1b) or a two-place [noun do] light verb configuration (e.g. *amets egi-n* in 3); note that the citation form of verbs in Basque is the perfective participle.

That said, in this paper I do not endorse the opposite thesis defended, for example, by Hale and Keyser (2003 and references therein to earlier work) that unergatives are a primitive type of two-place predicate. Instead, I argue that unergatives do not have an ontological status that could be based on their pre-

<sup>&</sup>lt;sup>3</sup> A reduced number of verbs, approximately 15, do not require auxiliaries to express the present and imperfective past (see Alcázar 2003b). These tensed verb forms also agree with all arguments of the verb, as illustrated in the appendix for compound tenses.

dicate-argument structure, in light of divergences observable in Basque and the languages of the world brought forward by the typological literature more generally.

I defend my thesis on independent grounds by showing the undesired corollaries of an ontological commitment to unergatives as either one-place or twoplace predicates given well-attested patterns in the marking of verbal arguments contributed by the typological literature. Our allegiance to unergatives as one-place predicates would predict split-intransitivity as illustrated in (1) and (2) not to exist. In contrast, considering unergatives two-place would leave out accusative and ergative languages, for these do not discriminate unergatives as two-place. On the other hand, abandoning our commitment carries with it a simplification of the typological classification of languages and enables us to bring an anomalous pattern of split-intransitivity in line with accusative and ergative languages. Accusativity and ergativity arise in languages where unergatives are one-place. The data in (1) and (2) are a case of unergatives being two-place in a split-intransitive language; thus this type of pattern can be reduced to a general case of accusative or ergative language (a reduction to ergativity in the case of Basque). Languages care to distinguish two-place predication from one-place predication by discriminating the object argument (accusative type) or the subject argument (ergative type). Split-intransitivity replicates an accusative or ergative type when unergatives are two-place. I am going to show that Italian and Basque serve to illustrate the aforementioned patterns.

#### 1.1. Outline of the article

I allude now to the structure of my paper. The upcoming section offers an overview of the Unaccusative Hypothesis, which takes the traditional ontological commitment to a primitive type of one-place verb to a double commitment: specifically, the unaccusative one-place type and the unergative one-place type, as advanced in this introduction. In this section I explore an alternative analysis of the morphosyntax of Italian based on one-place and two-place predication where unergatives are two-place. The third section reconsiders the current classification of Basque as a language of type ergative in view of the above examples (1-2), and it shows cases of split-intransitive languages with two-place unergatives and one-place unergatives. The fourth section explores the predictions that would result from an ontological commitment to unergatives as a primitive one-place or two-place verb in the context of the typological classification of languages. In either case we predict some language types not to exist. Then, the same section explores how to avoid these undesirable predictions by not committing to unergatives as a primitive type, and notes that a more elegant classification of languages may follow as a result. The language variation in the predicate-argument structure of reflexive sentences is offered as a parallel case to unergatives. The last section provides the conclusions reached in this article.

#### 2. The Unaccusative Hypothesis: one-place unergatives in Indo-European

This section presents an overview of the Unaccusative Hypothesis, which is faced with two-place unergatives in Basque. I argue that the evidence presented for the unaccusative-unergative distinction from Italian, which is based on the internal or external status of their overt argument, does not pay attention to the transitivity properties of these verbs. In the case of unaccusatives (=one-place with an *internal* argument), it may seem right to claim that a verb is one-place on the basis of having an internal argument for its subject. As to unergatives (=one-place with an *external* argument), in contrast, having an external argument for their subject is not a sufficient condition per se for it to be one-place. Because if that were the case, two-place verbs would also qualify as one-place by virtue of having an external argument for their subject; yet two-place verbs have an object argument as well. In fact, this section shows that the morphosyntax of Italian matches the profile of a split-intransitive language with two-place unergatives, similarly to Basque.

In the framework of Relational Grammar, Perlmutter (1978) proposes that intransitives do not constitute a homogenous class. Intransitives split in the syntactic origin of their argument, which may be external, as the subject of two-place verbs, or internal, as the object of two-place verbs. Perlmutter uses the terms *unaccusative* for verbs with an internal argument (4a) and *unergative* for verbs with an external argument (4b). Unaccusatives and unergatives look similar on the surface because the internal argument of unaccusatives takes the position of the external argument due to a constraint against sentences without a subject.

- (4) a. Unaccusatives: one-place verbs with an internal argument (e.g. arrive, break, drop, fall, move, open, shake, sink, split...)
  - b. Unergatives: one-place verbs with an external argument (e.g. crawl, dance, dive, float, fly, talk, shout, walk, work...)

In what follows I continue using this nomenclature for clarity of exposition even though in the next few paragraphs I am going to refer to the work of Burzio, who used other labels.

Burzio (1986) casts Perlmutter's idea in Generative Linguistics (5). Burzio argues that the internal argument of unaccusatives becomes a subject marked nominative (NB: in accusative languages; see section 3 in this article) due to the inability of the verb to mark its argument for case.

(5)	a.	Unaccusative:	[ <u>The girl</u> [ <b>t</b> arrived <b>t</b> late]] [The girl] generated in object position
	b.	Unergative:	[ <u>The girl</u> [t dances beautifully]] [The girl] generated in subject position

According to Burzio, unaccusatives and unergatives have distinct syntactic derivations. In the terms of the Government and Binding framework, unaccusatives have *deep objects* (i.e. internal arguments) and unergatives *deep subjects* (i.e. external arguments). The subject of unaccusatives starts the syntactic derivation as a sister to the Verb node in Deep-Structure. Since unaccusatives cannot assign accusative case,

they incur a potential violation of the Case Filter (roughly, a well-formedness principle requiring that all nominal expressions be licensed by case). To satisfy the Case Filter, the internal argument moves from its original object position to the next case assigning position: the Inflection node. There it receives nominative case. The argument of unergatives, in contrast, originates as a specifier to the Verb node in Deep-Structure. Later, it moves to the Inflection node to receive nominative case in Surface-Structure.

The reader may consult Burzio (1986) for explicit derivations of unaccusatives and unergatives in the framework of the Government and Binding theory. In my paper I do not go into the specifics of tree representations for unaccusatives and unergatives (for this matter see Burzio 1986; Levin and Rappaport 1995; Hale and Keyser 2003, among others). On the other hand, in the interest of focus I do not address whether Burzio's Generalization is universal (say, how it could or could not account for ergative languages; see Laka 1993, 1995 for an alternative view that would encompass different language types, and Alcázar 2002b for criticism).

Morphosyntactic tests that validate the Unaccusative Hypothesis, that is, the external or internal argument status of one-place predicates, are not readily available in the morphosyntax of all languages. After Perlmutter's seminal work, Italian provided much empirical support for this theory. Some of the differences between unaccusatives and unergatives in Italian are listed in (6).

- (6) a. Auxiliary selection (unaccusatives require be; unergatives have)
  - b. Participial agreement (unaccusatives only)
  - c. Post-verbal subjects (more easily with unaccusatives)
  - d. *Ne*-cliticization (a *partitive* marker; unaccusatives only)
  - e. Absolute participial constructions (better with unaccusatives)

The following examples in (7) serve to illustrate auxiliary selection and participial agreement with unaccusatives (7a) and unergatives (7b), the first two characteristics in the list. See Burzio (1986) for additional examples; also, see Sorace (2000) on auxiliary selection in Western Indo-European languages.<sup>4</sup> An example of a two-place in Italian is given in (8) for reference. The examples in (7-8) are translations of the Basque examples in (1-2) for ease of cross-linguistic comparison. I postpone allusion to case differences between different language types to avoid unnecessary complications until section 3, where the typological classification of languages is introduced for the first time.

<sup>&</sup>lt;sup>4</sup> Sorace (2000) observes alternations in auxiliary selection without a change in meaning for certain verbs in Western European languages. Some of these predicates are *continuation of state verbs* (*e.g.*, stay, remain, last, survive), and *existence of state verbs* (*e.g.*, exist, belong). This kind of variability can also be observed in Basque at least for the verb *existitu* 'exist' and weather verbs more generally (see Zubiri and Zubiri 2000).

- b. <u>La</u> <u>ragazza</u> ha sogn-ato The.Fem.Sg girl have.3Sg dream-Per 'The girl has dreamt'
- (8) <u>La ragazza</u> ha fini-to <u>il suo gelato</u> The.Fem.Sg girl have.3Sg finish-Per the her ice-cream 'The girl has finished her ice-cream'

This section has remembered Perlmutter's proposal that intransitive verbs may be divided into two classes based on the origin of their argument. Burzio followed in Perlmutter's steps and provided morphosyntactic evidence from Italian that would seem to justify this split.

#### 2.1. Italian as a split-intransitive language with two-place unergatives

Looking at the examples in (7) and (8), one may wish to consider the possibility that Italian could be characterized as a split-intransitive language in the typological sense (independently of the Unaccusative Hypothesis), by reason of differences in participial agreement and auxiliary selection between unaccusatives and unergatives, where unergatives pattern with two-place verbs.

Italian verbs agree with at most one argument. Agreement is not morphosyntactically realized in the same way for all verbs. A first thing to notice is that unaccusative participles (7a) agree with their argument for gender and number (i.e. -aexpresses feminine singular in Italian in agreement with 'the girl'; do not confuse with Basque -a in unaccusatives, which expresses absolutive singular). Secondly, unaccusatives require the auxiliary *be*. If unergatives in Italian are assumed one-place, then Italian attests to a pattern of split-intransitivity. Furthermore, a class of one-place verbs patterns with two-place verbs: unergative participles (7b) do not agree with their argument and demand use of the auxiliary *have* like two-place verbs do (8).

The Unaccusative Hypothesis may describe this split by appealing to the internal or external status of the argument in one-place verbs. Assuming that unergatives are one-place, then the presence or absence of an external argument seems to condition the use of one agreement system over the other. Specifically, an external argument licenses the use of auxiliary *have*. If an external argument is not present, then the auxiliary *be* is used instead. To complete this description we need to consider two-place verbs as well. The internal argument of two-place verbs does not serve to license participial agreement. To account for these data two additional assumptions are necessary. First, the agreement system of Italian requires concord with exactly one argument (a fair and possibly inevitable assumption). Secondly, when a verb has two arguments, agreement with the external argument overrides agreement with the internal argument (a theory internal assumption).

The approach sketched above meets the description of the data. However, note that transitivity does not play a role in the selection of one agreement system over the other, although unequivocally one-place verbs (unaccusatives) require the *be* system (for lack of a better term) and two-place verbs demand the *have* system. Unergatives are assumed one-place in the Unaccusative Hypothesis, even though they pattern with two-place verbs in Italian.

An equivalent description can be attained if unergatives are considered twoplace in Italian. Then the dividing line concerns the transitivity properties of the verb. As before, we assume that Italian agrees with at most one argument. When a choice is present, to be precise, when the verb is two-place, Italian decides to agree with an external argument and, as a result, the participle does not agree with the internal argument. In section 3 we are going to see a similar kind of arbitration for two-place verbs in Guarani performed by the feature person. If unaccusatives exceptionally display participial agreement is because they have no other choice but to agree with their internal argument.<sup>5</sup>

Notwithstanding the disagreement in the literature around the number of arguments that unergatives might require, the observable fact in Italian is that unergatives pattern with two-place predicates and against unaccusatives (one-place), as it is the case in Basque. Because of this, it is worth reassessing whether the evidence instrumental to support the Unaccusative Hypothesis in *Italian Syntax* could have been based on differences between one-place and two-place predicates, rather than on differences between two different primitive types of one-place predicates. I explore this idea further in the remainder of this section.

#### 2.2. Unergatives with a syntactic object: partitives in Italian and Basque

We are going to take a look at *ne*-cliticization in Italian and draw some comparisons with partitive case in Basque.

Ne is a partitive marker that relates to the argument of unaccusatives (9a) and the object of two place verbs (10). This morpheme cannot be employed with unergatives (9b), which suggests that unergatives may be one-place in Italian.

- (9) a. Ne **sono** arriv-at-*e* <u>due</u> Part be.3Pl arrive-Per-Fem.Pl two 'Two have arrived'
  - b. \*Ne hanno sogn-ato <u>due</u> Part have.3Pl dream-Per two 'Two have dreamt'

<sup>&</sup>lt;sup>5</sup> This footnote acknowledges an additional characteristic of the *be* system in Italian that the approaches briefly sketched above have not addressed yet. The *be* system has one other idiosyncratic property in addition to participial agreement for number and gender. The auxiliary *be* agrees for person with the argument of unaccusatives. Thus, the argument is cross-referenced twice in compound tenses: once by the participle as object agreement and once by the auxiliary as subject agreement. This redundancy in the *be* system does not contradict our earlier assumption that Italian requires agreement with at most one argument, or that unaccusatives are one-place, for unaccusatives can be captured in a derivational model of grammar that assumes that the argument of unaccusatives is internal and that it moves to an external argument position for some reason. For example, in the Government and Binding framework assumed by Burzio (1986) the internal argument moves driven by the Case Filter or EPP satisfaction (where EPP stands for Extended Projection Principle: all sentences must have a subject, that is to say, all sentences must have the external argument position filled).

(10) <u>La</u> ragazza ne ha fini-to <u>due</u> The.Fem.Sg girl Part have.3Sg finish-Per two 'The girl has finished two'

This would be perhaps the only argument on which this claim could be based. The other observable morphosyntactic facts discussed earlier serve to prove the status of the argument of unergatives as external, but not the one-place or two-place status of the verb. In this line, a comparison with Basque may provide a different perspective. Similarly to Italian, Basque can make use of partitive case marking on the argument of unaccusatives (11a) and the object of two-place verbs (12), favoring an indefinite interpretation of the argument, in questions and negative sentences (see Zubiri and Zubiri 2000). Like Italian *ne*, partitive case in Basque cannot be employed with unergatives. This fact cannot be illustrated properly with an example because we would need an overt argument to bear partitive case in (11b).

- (11) a. <u>Neskatil-*ik*</u> ailega-tu al da? Girl-Part arrive-Per Qu be.3Sg 'Has any girl arrived?'
  - b. \*<u>Neskatil-ak</u> <u>-(r)ik</u> ames-tu al du? Girl-Erg.Sg -Part dream-Per Qu have.3Sg.3Sg 'Has the girl dreamt?'
- (12) <u>Neskatil-ak</u> izozki-*rik* amai-tu al du? Girl-Erg.Sg ice-cream-Part finish-Per Qu have.3Sg.3Sg 'Has the girl finished any ice-cream?'

[Noun do] unergatives, in contrast, provide an overt argument on which the case marker can land. Although the noun in [noun do] unergatives cannot bear absolutive case, it is sometimes possible to use partitive case marking with [noun do] unergatives in questions (13) and in negative sentences (see Zabala 2002).

(13) <u>Neskatil-ak amets-*ik*</u> egi-n al du? Girl-Erg.Sg dream-Part do-Per Qu have.3Sg.3Sg 'Has the girl dreamt?'

In view of the data in (11-13), it might be premature to conclude that *ne*cliticization in Italian corroborates the one-place status of unergatives (=absence of a syntactic object), as this morpheme may not relate to unergatives for reasons independent of the syntactic presence of an object argument (e.g. apparently phonological reasons in the case of Basque).

The duality of the Basque data, with unergatives and [noun do] unergatives may indicate a transition from a two-place to a one-place that is not yet complete. [Noun do] unergatives are older verbs than unergatives. We are going to explore the status of the noun as a syntactic object in the next subsection. For example, it has been noted that unergatives can take a cognate object (14a; e.g. 'I have dreamt <u>a dream</u>' cfr. Martin Luther King), while [noun do] unergatives can't (14b; see Zabala 2002 and references therein).

- (14) a. <u>Neskatil-ak amets bat</u> ames-tu du Girl-Erg.Sg dream one.Abs.Sg dream-Per have.3Sg.3Sg 'The girl has dreamt a dream'
  - b. \*<u>Neskatil-ak amets bat</u> <u>amets</u> egi-n du Girl-Erg.Sg dream one.Abs.Sg dream do-Per have.3Sg.3Sg 'The girl has dreamt a dream'

Notwithstanding this difference, remember that unergatives and [noun do] unergatives resemble two-place verbs for subject case, auxiliary selection as well as subject and object agreement.

Italian unergatives may also take a cognate object.

(15) <u>La ragazza</u> ha sogn-ato un sogno The.Fem.Sg girl have.3Sg dream-Per a.Masc.Sg dream 'The girl has dreamt a dream'

Basque unergatives are not dissimilar from Italian unergatives for partitive morphology. Light verb constructions in Basque suggest that *ne*-cliticization may not be conclusive evidence that unergatives lack an internal argument in Italian.

#### 2.2.1. The noun in [noun do] unergatives as a syntactic object

I close this section with further evidence that the noun in [noun do] unergatives is a syntactic object. This evidence relates to word order differences in wh-questions and focus.

The noun may seem to form a constituent with the verb *do* in [noun do] unergatives since they appear next to each other and the noun does not bear case inflection. However, in the previous subsection we have seen that the noun may bear partitive case. This fact suggests that the noun may be an independent object not yet assimilated by the light verb. In fact, there are sentence types in which the noun and the light verb appear separated. This can be observed in wh-questions and sentences with a focused constituent. For brevity of exposition I illustrate this for questions only. See Ortiz de Urbina (1989) for examples of focus with [noun do] unergatives.

In questions, the interrogative pronoun requires adjacency with the participle, which makes the object appear in sentence-final position in an otherwise verb-final language. For ease of reference, the examples in (15-16) illustrate for a two-place the different word order facts observed between a declarative sentence (SOV: 15=2 above) and a wh-question in Basque (\*SOV: 16a; SVO: 16b). Then, the examples (17=3 above) and (18) reproduce the same sentence types with a [noun do] unergative.

#### two-place: declarative

(15) <u>Neskatil-ak bere izozki-a</u> amai-tu du SOV Girl-Erg.Sg her ice-cream-Abs.Sg finish-Per have.3Sg.3Sg 'The girl has finished her ice-cream'

#### two-place: wh-question

(16) a. * <u>Nor-k</u> <u>bere</u> <u>izozki-a</u> amai-tu du? Who-Erg.Sg her ice-cream-Abs.Sg finish-Per have.3Sg.3Sg 'Who has finished her ice-cream?'	*SOV			
b. [ <u>Nor-k</u> amai-tu du] <u>bere izozki-<i>a</i>?</u> Who-Erg.Sg finish-Per have.3Sg.3Sg her ice-cream-Abs.Sg 'Who has finished her ice-cream?'	SVO			
[noun do] unergative: declarative				
(17) <u>Neskatil-ak amets</u> egi-n du S Girl-Erg.Sg dream do-Per have.3Sg.3sg 'The girl has dreamt'				
[noun do] unergative: wh-question				
(18) a. * <u>Nor-k</u> <u>amets</u> egi-n du? Girl-Erg.Sg dream do-Per have.3Sg.3sg 'Who has dreamt?'	*SOV			
b. <u>Nor-k</u> egi-n du <u>amets</u> ? Girl-Erg.Sg do-Per have.3Sg.3sg dream	SVO			

'Who has dreamt?'

Section 2 has created a tension between the claim in the Unaccusative Hypothesis that unergatives are a primitive type of one-place verb and the empirical observation that unergatives are two-place in Basque. I have established that the evidence backing this theory is oriented to determine the external or internal status of the (visible) argument of unaccusatives and unergatives, not the transitivity properties of these verbs. Italian may be approached as a split-intransitive language with two-place unergatives, achieving an equivalent description of its morphosyntax based on one-place and two-place predication.

#### 3. A new role for unergatives in the typological classification of languages

This section introduces the typological classification of languages. In this classification Basque figures as language of type ergative (defined below). However, two-place unergatives in Basque cast doubts on the adequacy of this classification, as they attest to a split-intransitive pattern. I mean to show that the status of unergatives as one-place or two-place verbs may partially explain the irregular pattern known as split-intransitivity.

The typological literature provides a classification of languages based on the morphologically marked argument of transitive verbs and patterns in the syntactic behavior of verbal arguments (Comrie 1976, 1981, Hawkins 1983, Dixon 1994, Primus 1999, among many). This classification assumes three primitives: *subject of one-place, subject of two-place,* and *object of two-place.* In the Unaccusative Hypothesis, these three primitives would translate as two, namely external and internal arg-

ument and, consequently, the *subject of one-place* could be either an internal argument (unaccusative) or an external argument (unergative).

Typologists note that in a few cases each primitive is morphologically distinct from the other two. More often two primitives share the same morphological expression and distinguish themselves from a third. For example, in *accusative languages* (*e.g.*, English, German, Korean, Spanish) subjects —in the typological sense— share the same marking irrespective of whether the predicate is one-place or two-place, and objects (of a two-place) are marked differently. In other words, accusative languages discriminate the object of two-place verbs, which results into case syncretism between the subject of both two-place and one-place verbs. For example, English as attested by its pronominal system (19).

#### Accusative languages

- (19) a. She saw her
  - b. She arrived where the **object** of the two-place in (19a) is discriminated
    - a'. NOMINATIVE CASE Verb ACCUSATIVE CASE
    - b'. NOMINATIVE CASE Verb

On the other hand, *ergative languages* (*e.g.*, Chukchi, Dyirbal, Eskimo, Ket) generally mark the subject of one-place and the object of two-place in the same way, while the subject of two-place bears a different marking. This means that the subject of a two-place is discriminated and that case syncretism affects the object of a two-place and the argument of a one-place. An example from Dyrbal is given in (21; see discussion of case markers in Comrie 1981). It might be perhaps easier for native speakers of an accusative language to apprehend this concept schematically by turning the English examples in (19) into an ergative type for a minute. This I do by changing the subject case in the one-place from 'nominative' to 'accusative' in (20). Note that the description of case in ergative languages employs two different labels for case (see 20').

#### Ergative languages

(20) a. *She* saw her

b. Her arrived where the *subject* of the two-place in (20a) is discriminated

a'. ERGATIVE CASE	Verb	ABSOLUTIVE CASE
b'. ABSOLUTIVE CASE	Verb	

- (21) a. Balan dygumbil bangul yarangu balgan OSV woman-Abs man-Erg hit 'The man hit the woman'
  - b. Bayi yara baninyu man-Abs came-here 'The man came here' (Dyirbal, Comrie 1981: 112; ex. 12-13)

Finally, *neutral languages* follow a third pattern where all three primitives share the same marking. I spare the relevant examples in the interest of space and focus,

and move ahead to the discussion of the Basque language. Other patterns discussed in the typological literature like split-ergativity and split-intransitivity are discussed later in this section.

The first part of this section has shown that languages tend to discriminate twoplace predication.

#### 3.1. Reviewing the typological classification of Basque

This subsection vindicates that unergatives should play a role in the typological classification of Basque.

Basque is often presented as a splendid example of ergativity in the typological literature (22; Comrie 1981, Dixon 1994, Primus 1999, among many):

- (22) a. '<u>Basque</u>, the language isolate spoken in the Pyrenees, is fully ergative at the morphological level (Dixon 1994: 2, and references therein)
  - b. 'Some language isolates are also ergative, such as <u>Basque</u> [...]' (Primus 1999: 89)

Traditionally, ergative languages differ from accusative languages in the verbal argument they discriminate. Ergative languages discriminate the subject of a twoplace verb, resulting into case syncretism between the object of two-place verbs and the argument of one-place verbs (e.g. 21, Dyrbal cfr. Dixon 1994; or as in the modified example from English: 20). However, the axioms in the typological classification of languages would *by definition* declare Basque to be of type split-intransitive (e.g. like Guarani, Gregorez and Suárez 1967, cfr. Primus 1999; or Slave, Rice 1991). For Basque has a class of verbs assumed one-place whose subject is marked exactly as the subject of two-place verbs (1-2 in the introduction).

The point is that if Basque were indeed an ergative language, a verb like 'dream' in example (1b) should bear the same case, require the same auxiliary, and exhibit the same argument agreement facts as 'arrive' in (1a). The reason for this being that 'arrive' and 'dream' have one (expressed) argument, and are thus presumed oneplace. The reader has already being warned against this postulation. Because object agreement in unergatives and their [noun do] unergative counterparts are two strong arguments in favor of regarding unergatives two-place predicates in Basque.

Basque is a split-intransitive language then. The label in itself is misleading for this language because it refers to a set of verbs assumed one-place that are marked like two-place.

In what remains of this section I feed the reader with details about how splitintransitivity figures as an anomaly in the typological classification of languages and propose to think of it instead as a general case of an accusative or ergative language where unergatives may be two-place (e.g. Basque) or one-place (e.g. Guarani).

#### 3.2. Split-intransitive languages

This subsection concerns split-intransitive languages, which are assumed a subtype of split-ergative languages (defined below); an assumption that may need to be reviewed.

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Split-ergative languages behave in part like accusative languages and in part like ergative languages. One pattern seems to dominate over the other on a language particular basis. This means that, despite what this term suggests, in some split-ergative languages the dominant pattern is accusative (see Primus 1999). Thus, the label *split-ergative languages* is a cover term for both split-accusative and split-ergative languages. With this clarification in mind, I proceed to illustrate *split-ergativity*.

The split is usually domain specific. Typical splits take place across person, tense, aspect, and mood. Clearly syntactic splits are also attested; for example, across main/subordinate clauses. Some examples of split-ergative languages are Burushaski, Georgian, Hindi, and Yucatec.<sup>6</sup> The following examples show the split found in Hindi. In sentences with imperfective aspect, the language is accusative (23a). In contrast, in sentences with perfective aspect the language is ergative (23b).

(23)	a.	Laarka	kitaab	parh-taa	hai
		Boy.Masc,nom	book.Fem	read-Imp,Masc,3Sg	aux.3Sg
	'The boy reads the book'				
	b.	Larke ne kita	ab par	h-ii	
	2.	Boy.M erg boo			
		'The boy read th		, , , , , , , , , , , , , , , , , , , ,	
			(Hindi, C	Gair and Wali 1989: 4	9 cfr. Primus 1999: 79,
					ex 18)

To the extent that split-ergativity concerns two-place verbs only, we might want to use the term *split-transitive* instead. The motivation for this label being that the discriminated argument is sometimes the subject, and sometimes the object of a two-place verb. However, the idea behind this label is quite different from the idea behind split-intransitivity and for that reason I do not pursue adopting the term split-transitivity as a replacement of split-ergativity here to avoid further confusions in the use of terminology.

We now turn to split-intransitive languages (also known as active languages).

Split-intransitive languages have the split located in one-place verbs (or sometimes extended to one-place verbs) and are often grouped together with splitergative languages (see Dixon 1994; Primus 1999; and Rice 1991 for a case study of Slave). Guarani, Laz, Slave and Tupinamba are languages that show this type of split.

The data from Basque or Italian that we have discussed so far are fair illustrations of split-intransitivity. I see no need to reproduce the examples here. We are going to see a third case of a split-intransitive language in the upcoming subsection.

<sup>&</sup>lt;sup>6</sup> Some Basque scholars temporarily debated whether a phenomenon known as Ergative Displacement signifies an embedded accusative pattern in Basque (see Artiagoitia 2000: 371-75 for a summary and references). Ergative Displacement was eventually disregarded as neutralization of morphological distinctions (Fernández 1997, cfr. Artiagoitia 2000: 372).

<sup>&</sup>lt;sup>7</sup> The reader is referred to the cited work for a discussion of case marking in Hindi.

Given the above definition of terms, I believe that the connection between splitergativity and split-intransitivity is not obvious or self-evident. Split-ergativity concerns a mixture of two patterns of case marking. In contrast, split-intransitivity presents two morphosyntactically distinct classes of one-place verbs (where one class may be in fact be two-place; e.g. Basque). Hence, split-intransitivity relates more to a general pattern of accusativity or ergativity than a mixture of such patterns. This is clear in the type exemplified by Basque. The reason why splitintransitive languages have been grouped together with split-ergative languages may be due to these patterns being irregular, deviations from pure accusative or pure ergative languages that resist the classification assumed.

This subsection has put forward that split-intransitivity relates more to accusativity and ergativity than a mixed type.

# 3.3. Identifying unergatives as one-place or two-place in split-intransitive languages

This subsection presents data from Guarani (Primus 1999), a split-intransitive language where unergatives are one-place.

The set of four examples below illustrates a so-called split in the one-place class found in Guarani. Two-place verbs agree with either the subject (24c) or the object (24d) based on a person hierarchy (where first person is the highest and the highest person determines agreement). One-place verbs in Guarani are of two classes: one class (A in Primus 1999) takes the verbal agreement marker for the subject of the two-place (24a); the other class (B in Primus 1999) takes the verbal agreement marker for the object of the two-place (24b).

One-place		Two-place
(24) a. a-ma.apo 1Sg,A-work 'I work'		ai-pete 1Sg,A-hit 'I hit him'
b. se-manu <sup>?</sup> a 1Sg,B-remember <sup>8</sup> 'I remember' (Guarani, Gregorez an		se-pete 1Sg,B-hit 'He hits me' uárez 1967: 110, cfr. Primus 1999: 94-5; ex. 32)

The fact that unergatives, unlike two-place verbs, cannot agree with an implicit object argument suggests that these verbs are one-place in Guarani. If unergatives are one-place, there is no reason to mark them like two-place verbs. In order to appreciate the unmarked status of unergatives in Guarani, we need to make sense of the mechanics of its agreement system.

<sup>&</sup>lt;sup>8</sup> The verb 'remember' is assumed unergative/transitive (object deleting) in Western Indo-European and Basque. In contrast, in Guarani 'remember' seems to be treated as an unaccusative. For more on this kind of variability, see Dowty (1991), Primus (1999), and Sorace (2000), among many.

Guarani is similar to Italian to the extent that both languages require agreeing with exactly one argument. All verbs comply with this requirement. But the similarities end here. Italian prefers that the verb agree with an external argument, if there is one. This is descriptively adequate for Italian regardless of the number of arguments we assume unergatives require. When there is no external argument, agreement with the internal argument takes place via the participle and then the auxiliary (7a above). In contrast, Guarani has no preference over what argument to agree with. Thus, two-place verbs call for arbitration. On the other hand, one-place verbs display object agreement or subject agreement depending on the type of argument available. In fact, that one-place verbs in Guarani are distinguishable on the basis of the agreement system substantiates the Unaccusative Hypothesis, perhaps more convincingly so than Italian. Yet Guarani alone is not sufficient for an ontological commitment to unergatives as one-place, for there are other languages where such a commitment would fail, say Basque.

Section 3 has shown that the Basque data from unergatives does not conform to the traditional classification of Basque. The label of split-intransitive language fits it better. Unergatives are one-place in some split-intransitive languages (e.g. Guarani) and two-place in others (e.g. Basque).

#### 4. Falsifiable predictions of an ontological commitment to unergatives

This section tests the predictions that stem from assuming unergatives to be a primitive type of one-place or two-place verb in the context of typological studies.

In earlier sections we have seen clear cases of languages where unergatives are twoplace or one-place. For instance, Basque has been shown to be a language where unergatives are two-place by observing morphosyntactic patterns in the areas of verbal agreement, case marking, auxiliary selection and light verb constructions. Guarani, on the other hand, is an example of a language where unergatives are oneplace. This we could establish by observing that optional subject or object agreement is an exclusive characteristic of two-place verbs that does not extend to unergatives.

In view of the above variations in the predicate-argument structure of unergatives, which is found across languages (e.g. Basque vs Guarani), and inside the same language (e.g. Basque unergatives and [noun do] unergatives in a sort of twoplace continuum moving towards one-place), an ontological commitment to unergatives as a primitive type of one-place or two-place verb cannot be embraced. The thesis of an ontological commitment based on predicate-argument structure can be independently assessed in the context of the typological classification of languages.

Let us assume from the pure patterns of accusative and ergative languages that grammars care to distinguish two-place predication from one-place predication by discriminating the object of a two-place or the subject of a two-place, respectively. Now we commit to unergatives as one-place (e.g. Perlmutter 1978, Burzio 1986) or two-place (e.g. Hale and Keyser 2003) and see what predictions arise from our allegiance.

If our ontology considers unergatives as a primitive type of one-place verb, there is no reason for a split-intransitive language like Basque to discriminate unergatives as two-place. Consequently, our commitment predicts that languages where unergatives pattern with two-place should not exist. This prediction is inconsistent with the split-intransitive languages described in the typological literature (see Dixon 1994) and, in particular, with split-intransitive languages where unergatives are two-place.

If unergatives are a primitive type of two-place verb, there is no reason for a split-ergative language like Guarani to have a fixed agreement system in unergatives that patterns with that of unaccusatives and against two-place verbs. More generally, this second version of our allegiance prevents the existence of purely accusative or ergative languages. The reason being that a language able to discriminate the subject or object argument of a two-place by some morphosyntactic means should replicate such discrimination with two-place unergatives as well. Ergo, all ergative languages would then behave in a way similar to Basque and all accusative languages in a way similar to Italian. This we know not to be the case; for there are purely ergative languages like Dyrbal as well as purely accusative languages like English.

This section has shown that an ontological commitment to unergatives on the basis of their predicate argument structure conflicts with existing language types.

#### 4.1. The reason for diversity: accusative, ergative, mixed, split-intransitive

This subsection explores the benefits of not considering unergatives a primitive type in the ontology of verbs in view of their divergent predicate-argument structure.

To abandon our commitment to unergatives as a primitive based on their predicate-argument structure means to allow unergatives to be one-place and twoplace on a language particular basis. This permits language variation in the predicate-argument structure of unergatives, which in turn prevents expectations that would not be borne out by the existence of certain languages not ruled in by the theories that embrace an ontological commitment.

Such a move has two advantages that relate to the typological classification of languages. First, unergatives help articulate the known language types and rule in anomalous patterns. Accusative and ergative languages may be viewed as cases where unergatives are one-place and thus pattern with unaccusatives; and splitintransitive languages as a case of accusative or ergative language in which unergatives may be two-place, and thus sometimes equivalent to two-place verbs with two explicit arguments. Secondly, this step towards a simplified classification enables us to place an emphasis on discriminating two-place predication from oneplace predication that was already present in the traditional classification, albeit obscured by irregular patterns. In this regard, what remains is an effective typology of two types in a probability distribution with a relative statistical tendency towards accusativity; a tendency that is possibly due to chance. In this new typology, the mixed type (split-ergativity) simply manifests one type or the other in a manner presumed consistent across the category that arbitrates the split. The pattern in conflict with the general picture has always been split-intransitivity, which blends languages where unergatives are one-place or two-place.

This subsection has elaborated on the advantages that abandoning our allegiance to unergatives presents for the typological classification of languages. The last subsection addresses the reservations that some readers may have about certain verbs coming into existence as one-place or two-place on a language particular basis.

#### 4.2. Other fluctuations in predicate-argument structure: reflexives

This subsection attempts to mitigate concerns regarding inconsistent mappings between meaning and predicate-argument structure by looking at the various shapes that reflexive sentences may take across languages and even inside the same language.

Unergatives are not alone in attesting to variability in predicate-argument structure across languages. Reflexives too substantiate a similar phenomenon; perhaps, more forcibly than unergatives since the same language may opt for expressing reflexive sentences by means of one-place predication or two-place predication. Basque and Italian are two such languages where reflexives may be expressed as one-place or two-place. We are going to explore these choices using the model sentence '<u>The girl</u> has seen <u>herself</u>', which is built around a two-place verb in English. Here I take for granted the bona fide assumption that one would expect reflexivity to exhibit consistency in predicate-argument structure, given that its meaning is presumed not to vary across cultures; although scholars working on the reflexive meaning of unaccusatives (e.g. '<u>The window</u> broke') may harbor reasonable doubts. In fact, my goal is to cast doubts around this issue to reassure some readers that variability in the predicate-argument structure of unergatives is a valid alternative to an ontological commitment.

In Basque, '<u>The girl</u> has seen <u>herself</u>' may be expressed with a reflexive pronoun or without it (Albizu 1998). The reflexive looks like 'her head.Abs.Sg', meaning *herself*. If the reflexive pronoun is used, the verb is two-place (25a) like in English, and one-place otherwise (25b).

- (25) a. <u>Neskatil-ak</u> <u>bere</u> <u>buru-a</u> ikus-i du Girl-Erg.Sg her head-Abs.Sg see-Per have.3Sg.3Sg 'The girl has seen herself'
  - b. <u>Neskatil-a</u> ikus-i da Girl-Abs.Sg see-Per be.3Sg 'The girl has seen herself'

The characteristics of one-place and two-place verbs that we have discussed for Basque are duplicated in these examples (see the unaccusative in 1a and the twoplace in 2 for reference).

Italian, on the other hand, uses *se stesso* for *herself* (26a) or may decide not resort to a reflexive pronoun (26b), in which case the verb is presumed one-place.

(26) a. <u>La ragazza</u> ha vi-sto <u>se stesso</u> The.Fem.Sg girl have.3Sg see-Per herself 'The girl has seen herself'

# b. <u>La</u> ragazza si è vi-st-*a* The.Fem.Sg girl Pas be.3Sg see-Per-Fem.Sg 'The girl has seen herself'

Unlike the Basque examples in (25) above, where one-place and two-place predication were identical with non-reflexive sentences, the Italian example that represents one-place predication has an additional morpheme, si (26b), which was not present in the unaccusative examples from Italian offered so far. This morpheme is traditionally referred to as *si passivante* (passive or 'passivizing' *si*) and it accompanies the set of unaccusative verbs that have two-place counterparts in Italian; for instance 'break'. This morpheme is attached to the citation form of the verb to indicate its use as one-place (e.g. rompere for two-place; rompersi for one-place, illustrated for the verb 'break'). Some scholars think of the *si* morpheme as a reduced external argument indicating the transition from two-place to one-place (see Levin and Rappaport 1995). Even if this morpheme were considered an argument proper, then the Italian examples could be qualified as displaying an option to express reflexivity through the be system or the have system, their differences in predicate-argument structure to be determined precisely. Incidentally, the set of unaccusatives that have two-place counterparts in Basque is not distinguishable from the set that lacks two-place counterparts.

Section 4 has illustrated the disadvantages of an ontological commitment to unergatives and the benefits of not pursuing that commitment for a simplified typological classification of languages where we take steps toward the elimination of the anomalous type of split-intransitivity. Reflexives offer an independent case of flexibility in predicate-argument structure that may be attested even inside the same language.

#### 5. Conclusion

My article has shown divergences in the predicate-argument structure of unergative verbs, opening a debate around the need for an ontological commitment to such verbs on a structural basis. A simplified and more articulate typology of languages may follow from abandoning our allegiance to unergatives that may eventually dispose of anomalous types like split-intransitivity and concentrates on the differences between one-place and two-place predication. The flexibility in the transitivity properties of unergatives defended here finds independent support in a stronger case made by the observed variability in the predicate-argument structure of reflexive sentences. In the process of argumentation, I have cast doubts about the adequacy of the current typological classification of Basque, and the status of unergatives in Italian as one-place verbs.

#### Appendix: more on verbal agreement in Basque

Languages like Italian or Guarani require the verb to agree with at most one argument even if the verb is a two-place. In contrast, Basque requires two-place verbs to agree with both the subject and the object; and this requirement is extended to indirect objects as well (see Zubiri and Zubiri 2000). For instance, take a look at how one could express in Basque the action that my cat has entered the house by herself as a one-place verb in (1); by intervention of a second argument as a two-place verb in (2); or by intervention of second argument in an act of charity from which a third argument benefits as a three-place verb in (3). The auxiliary, highlighted in bold, changes according to the number of arguments (1, 2 or 3) involved in the action or situation described. In three-place predicates, object agreement is limited to third person. I made all arguments explicit in the following examples so that the predicate-argument structure of the verb is unambiguous. The reason for this is that the verb is the same in the three examples. Any and all arguments could be omitted by virtue of the rich agreement system of Basque.

- (1) <u>Rosita</u> etxe-an<sup>9</sup> sar-tu **da** Rosita.Abs.Sg house-in enter-Per be.3Sg 'Rosita has entered the house'
- (2) <u>Ane-k</u> <u>Rosita</u> etxe-an sar-tu **du** Ane-Erg.Sg Rosita.Abs.Sg house-in enter-Per have.3Sg.3Sg 'Ane has brought Rosita into the house'
- (3) <u>Ane-k Mikel-i Rosita</u> etxe-an sar-tu **dio** Ane-Erg.Sg Mike-Dat.Sg Rosita.Abs.Sg house-in enter-Per have.3Sg.3Sg.3Sg 'Ane has brought Rosita into the house for Mikel'

Abs absolutive	Imp imperfective	Part partitive	Qu question particle
Dat dative	Loc locative	Pas passive	Sg singular
Erg ergative	Masc masculine	Per perfective	- morpheme boundary
Fem feminine	Nom nominative	Pl plural	. morpheme overlapping

#### List of abbreviations

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<sup>&</sup>lt;sup>9</sup> In these examples I gloss *-an* as the preposition 'in' for space limitations in (3). I extend this gloss for consistency to (1) and (2). The gloss for *-an* should be— Loc.Sg (i.e. 'Locative singular').

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