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*Searching for adverbs: a look into the nature of
adverbial modifiers from Basque manner adverbials*

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ABSTRACT

This work aims at tackling the theoretical problem regarding the categorial nature and morphosyntactic structure of so-called adverbs. In order to do so, first, I discuss the main difficulties that we have to face in order to give a coherent definition of the adverb as a grammatical category. This discussion underlines the fact that although the term *adverb* is commonly used in the literature, it has never received an unambiguous definition, and therefore, it remains a term that confuses semantic, syntactic and morphological criteria. For that reason, some authors (Emonds 1985, 1987; Baker 2003) have defended that no independent adverbial category is needed and that words commonly identified as adverbs may belong to already existing and better-defined categories. I subscribe to this hypothesis, and in the second part of this work, based on Basque adverbials built with the suffix *-ki* and the morphosyntactic analysis that I propose to account for it, I offer evidence in favour of it. The suffix *-ki* is analogous to English *-ly* or Romance *-ment(e)* and it has often been presented as a derivational suffix, just like its English and Romance counterparts. However, this analysis fails to explain some aspects of the behaviour of these suffixes. For this reason, I will present an alternative analysis for Basque *-ki* adverbials based on Rubin's (1994) proposal for the syntactic and semantic analysis of modifiers. According to this hypothesis, modifiers project syntactically through a functional head (called Modification Phrase, ModP). I propose the suffix *-ki* is the lexical instantiation of the Mod head and as such it can take words from different categories as its argument: adjectives, as in *zehazki* 'concretely' but also nouns, as in *gizonki* 'manly', participles as in *deliberatuki* 'deliberately' or apparent postpositional phrases as in *dolorezki* 'hurtingly'. Other adverbials may also fit in the same analysis, since apparent postpositions (such as *-an* 'in', *-z* 'by', *-kin* 'with') will be argued to be further instantiations of this functional head. Likewise, words that look like adjectives but act as adverbials (such as *azkar* in *azkar etorri* 'to come fast') are analysed as ModPs too, where the Mod head has no phonological substance. This framework will enable a unified account of all adverbials formed with the *-ki* suffix as well as other Basque adverbials formed differently. This unified account will lead me to the conclusion that no independent adverbial category is needed to describe these cases, and that Basque adverbials should be conceived as items from other categories that may act as modifiers when embedded in the appropriate functional structure.

1. Introduction

So-called adverbs, and adverbial modifiers overall, have not received enough attention in grammar theory, and as a consequence, it appears that a consistent and widely accepted analysis for modifiers is still necessary (Jackendoff 1977; Larson 1985; Chomsky 1995; Delfitto 2005). Some open debates regarding modifiers are what their syntactic position should be, what semantic type they should receive or even how the very semantic function of modification is to be conceived.

However, parallel to these debates, and even prior to them, there is the deeper question of what exactly an adverb constitutes. The literature regarding these issues does not often address the question, and it assumes a common-use definition or makes use of a pretheoretical conception of the adverb. Sometimes, it is assumed that the analysis for adverbial modifiers should be similar regardless of the category of the modifier; however, this leads to assuming the existence of the category *adverb* without further motivation.

This dissertation aims at exactly tackling this issue: should the adverb be considered an independent category? And if so, how should it be unambiguously defined? In section 2, I offer an overview of the definitions provided by various grammars of English and Spanish, and I remark on the difficulties that they encounter in order to propose a clear, univocal definition for the adverb (§2.1). I also review some previous proposals that try to dispense of the adverbial category by classifying words commonly identified as adverbs into other categories (§2.2). After that, I briefly review the definition that Basque grammars have given to adverbs, and I make a description of the type of words that have been classified as such (§3.1). Based on this review, I conclude that, as of today, no coherent definition for adverbs is available, which could be taken as a signal that no such category is actually necessary.

After this theoretical disquisition, I turn to the main object of study of this work: so-called adverbs constructed by the *-ki* suffix in Basque. This suffix is analogous, in many aspects, to English *-ly* or Romance *-ment(e)* in that it is used to generate modifiers of non-nominal domains, particularly of the verbal or sentential domain. These suffixes have often been thought of as derivational, their function being precisely that of deriving adverbs from adjectives. This obviously poses a problem to a hypothesis where the adverb category is inexistent. However,

throughout this work I try to show that this is not the case, since these morphemes are not actual derivational suffixes.

In order to demonstrate this, I first describe the suffix *-ki* (§3.2), to later face the question of whether it is really derivational as it is often claimed. Section 4 is devoted to this question. After introducing the problems that emerge if we think of these suffixes as derivational (§4.1), I turn to the proposals of some authors that consider these suffixes as lexical instantiations of various functional heads (§4.2). I critically review the proposals by Fábregas (2007) and Rubin (1994) and, to evaluate them, I also introduce the debate regarding the semantic representation of modification. Under this light, Rubin's (1994) analysis has been favoured as it appears to be more suitable for a theory of the syntactic-semantic interface (§4.3).

Based on these proposals, in section 5, I offer a new analysis for Basque *-ki* adverbials. First, I revisit the analysis by Fernández Altonaga (2021) based on Fábregas (2007) (§5.1). I conclude that this analysis is incomplete, since it does not consider the fact that adverbial *-ki* attaches to categories other than the adjective, unlike *-mente* or *-ly*. Thus, departing from Fernández Altonaga's (2021) proposal, I take Rubin's (1994) proposal as a starting point to offer an analysis for some unnoticed types of *-ki* adverbials (§5.2). Following his proposal, I argue that the suffix *-ki* is a lexical instantiation of the functional head that characterizes all modifiers: the Modifier Phrase, ModP.¹ Finally, I extend this vision to adverbials not formed through the suffix *-ki*, such as bare-adjective adverbials (such as *arin* 'fastly') or adverbials that seem to contain a postposition (such as *ustez* 'apparently, allegedly'), showing that in these cases too, the Modifier head is being filled either by the apparent postposition or by an empty morpheme (§5.3).

Thus, at least for the cases under study in this work, I conclude that the category *adverb* is unnecessary as well as misleading, since it establishes a terminological as well as conceptual difference between various types of modifiers that, according to my hypothesis, constitute the

¹ The abbreviations used throughout the text and glosses will be the following: A(P): Adjective (Phrase), Adv(P): Adverb (Phrase), ABS: Absolutive, ALL: Allative, AUX: Auxiliary, C(P): Complementizer (Phrase), DAT: Dative, DP: Determiner Phrase, DET: Determiner, DegP: Degree Phrase, ERG: Ergative, F: Feminine, INES: Inessive, INS: Instrumental, IPFV: Imperfective, M: Masculine, Mod(P): Modifier (Phrase), N(P): Noun (Phrase), Neg: Negation head, OBJ: Object, PF: Perfect, P(P): Pre/postposition (Phrase), Pred(P): Predication (Phrase), PROG: Progressive, QP: Quantifier Phrase, S: Sentence, Spec: Specifier of, Σ : Sigma head, SBJ: Subject, STAT: Stative, TP: Tense phrase, V(P): Verb (Phrase), vP: small v Phrase.

same type of constituent in both semantic and syntactic terms (§6). Such a view may pave the way to envisage a more perspicuous theory of modification, where all modifiers would be analysed syntactically in the same way. Along this way, a more simplified account of grammatical categories might also be attained, and one where they are not the mixed result of formal, functional and semantic criteria.

2. Adverbs: an overview

In this section I address the issue regarding the definition of the grammatical category *adverb* (§2.1). As I show, a coherent definition has never been attained, which has posed a problem in the description of grammars of languages such as Spanish, English or Basque. As a result of this confusion, some authors have tried to avoid positing such a category by sorting out the words that have traditionally been perceived as adverbs into other categories. In the next section (§2.2). I review two of the proposals that serve as a basis to the hypothesis that I defend throughout this work.

2.1. Difficulties in the description of adverbs

The status of the adverb as a separate grammatical category or word-class has a longstanding tradition. Grammars from some languages (for instance, Huddleston and Pullum 2002 for English, Bosque and Demonte 1999; *Nueva Gramática de la Lengua Española (NGLE)* 2009 for Spanish, Euskaltzaindia 1991; Hualde and Ortiz de Urbina 2003; Salaburu et al. (*SEG*) 2011-2019 for Basque) describe the adverb as the word-class that is in charge of modifying the verbal domain, and usually consider them items that constitute a unique word.

However, when trying to dig deeper into this definition, it becomes clear that there is little agreement beyond these generalizations. Firstly, it is not clear what it is exactly that the type of words traditionally called *adverbs* modify. Huddleston & Pullum (2002: 562) mention that they are «characteristically used to modify verbs» to later add that «words that can modify verbs can also modify adjectives and other adverbs». Furthermore, in the Spanish Academy's Grammar (*NGLE* 2009), adverbs are claimed to modify even more categories such as nouns, pronouns and prepositional phrases. Thus, the definition of adverbs in terms of what they modify becomes clearly too imprecise.

This problem derives partly from the fact that there is no consensus either on what exactly an adverb constitutes. Many authors (Bosque 1989; Emonds 1987; Huddleston and Pullum 2002) acknowledge that the term *adverb* is actually used too vaguely or as a wastebasket concept that gathers words that are morphologically and semantically very different from each other. It may be useful to briefly review some of the differences that arise in this sense when considering different types of adverbs.

Regarding morphology, as I have previously mentioned, it is common to assume that adverbs should constitute single word units, while whole phrases that are used in the same modification contexts qualify as PPs, *adverbial locutions* (Bosque & Demonte 1999; NGLE 2009) or *adverbials*, depending on the terminology. Nevertheless, on a closer look, it is not always as straightforward to determine what a single word constitutes. For example, in a fairly synthetic language such as Basque (see Hualde and Ortiz de Urbina 2003 or *WALS*: Bsq), PPs are also perceived as one word, thus blurring the presumed difference between *adverbial PPs* and *adverbs*. In English, for example, words that are usually classed as adverbs (*furthermore, somehow, today*) are clearly composed by two words which have later lexicalized and consequently, have come to be pronounced in a single phonological word, as well as taking a unitary or non-compositional meaning. Not surprisingly, there exist some locutions which have not yet completed this lexicalization process, and are, therefore, still perceived as two words but with a unitary meaning: *in time, at last*. Thus, the morphological requirements for a structure to be considered an adverb remain totally unclear.

No clear semantic characterization of the adverb is available either. Adverbs are commonly described as modifiers, and as such, they are generally conceived of as non-argumental in the syntactic structure. Interestingly, though, adverbs can also appear as obligatory in some structures (Delfitto 2005; McNally 2016). Verbs such as *dress, behave* or *word* in English seem to require a manner adverb as one of its complements (1):

- (1) a. Peter dresses *well* in all situations.
- b. You must ask the kids to behave *impeccably* today.
- c. Sandra worded the letter *clearly*.

In these contexts, adverbs (or similar adverbial expressions) seem by no means to be dispensable. Hence, it seems that its *non-essential* status cannot be taken as a necessary

condition in order to define the adverb either. In fact, as McNally (2016: 443) points out, this criterion is problematic to define any kind of modifier.

Yet another problem is that various grammars differ on whether words with a deictic meaning need to be considered adverbs. In fact, the deictic nature of words such as *there* or *today* for English, or *así*, *allá*, *entonces* in Spanish has led certain authors to classify them as pronouns (Huddleston and Pullum 2002) or determiners (Emonds 1987). Other classifications (Bosque & Demonte 1999; NGLE 2009; Euskaltzaindia 1991), on the contrary, consider them adverbs and group them together with other adverbs in traditional notional subcategories such as time-adverbs, manner-adverbs, etc. Interestingly, in Demonte & Bosque's grammar (Kovacci 1999: 707), adverbs are grouped into those that have full lexical content and those which do not, such as deictic adverbs (*aquí*, *ahora*, *mañana*), quantitative adverbs (*poco*, *casi*, *todavía*), numerals (*primero*, *medio*), *identificatives* (*mismo*, *sí*, *también*) and *relatives* (*donde*, *cuando*). It is remarkable that this classification includes words from many semantic types, thus making the adverb class extremely heterogeneous in terms of their semantics.

Nonetheless, the central issue concerning the semantics of adverbs is precisely what the modification relationship of adverbs consists of. Following Jackendoff (1977) many authors have used the common division of adverbs into *VP-adverbs* (such as *slowly*) and *S-adverbs* (such as *presumably*). This tradition is continued in specialized works on syntax such as Travis (1988), Potsdam (1999), Alexiadou (1997), among others. Although these terms refer to the structural relationship of adverbs, in Jackendoff's (1977) proposal, the position of adverbs within the structure of a sentence depends fully on its projection rules, and therefore, on what element the adverb is able to modify. Thus, VP-adverbs are supposed to modify the verbal predicate by providing information about the event. S-adverbs, on the other hand, are supposed to modify the whole sentence by expressing information about the entire proposition. Indeed, in his work, Jackendoff (1977) makes a case for proposing categories that are relevant both semantically and syntactically.

In the domain of formal semantics, and in line with Jackendoff's (1977) division, Thomason & Stalnaker (1973) distinguished between *predicate-modifiers* (Pred-adverbs) and *sentence-modifiers*. Thus, these authors conceive of adverbs as operators that operate over sentences or predicates, the same way as negation operates over sentences. But, when taking a

closer look on the adverbs described as Pred-adverbs, it becomes clear, as Delfitto (2005) observes, that «not all adverbs can be interpreted as predicate operators, different adverbs are projected into different semantic objects» (Delfitto 2005: 1). Thus, adverbs known as *subject-oriented* such as *rudely* or *speaker-oriented* ones like *happily* seem to establish a relationship between two elements in the clause (the proposition and the subject's or the speaker's attitude, in each case), as Jackendoff (1977) himself describes. Pragmatic adverbs like *therefore* and domain adverbs such as *botanically*, on the other hand, do not modify the meaning of the sentence in itself. Instead, they point at the context or domain in which the sentence must be set in order to be correctly interpreted. None of these cases fits comfortably in the description of an operator applying to a function.

In response to this problem, McConnell-Ginet (1982) proposed adverbs to be variable-binders. Although her proposal differs in many significant ways from that of Thomason & Stalnaker (1973), it resembles it in that she also retains the division between what she calls Ad-Verbs and Ad-Sentences. According to McConnell-Ginet (1982), Ad-Verbs extend the semantics of the verb itself, thus helping interpret the event in a determined way while Ad-Sentences affect the interpretation of the whole sentence. This approach, however, also finds some difficulties when trying to account for manner-adverbs which can also have a subject-oriented interpretation as in *Rudely, Peter closed the door* as opposed to *Peter closed the door rudely*.²

In addition to all this, some authors (Thomason and Stalnaker 1973; McConnell-Ginet 1982; Delfitto 2005) pointed at the fact that a further problem emerges if we consider that adverbs have also been described as modifying other predicates such as adjectives and adverbs. An account of adverbs as a semantically coherent category would require explaining what semantic and syntactic mechanisms allow adverbial modification to take place over such a different range of semantic objects. This problem, it goes without saying, intersects with the well-known theoretical problem of determining what modification consists of in terms of formal structure. I will review some of these problems in more depth in section 4.2.3.

² The reader is referred to Delfitto (2005: 1-29) for more discussion on these issues.

The debate on the syntactic structure of adverbs is obviously related to their semantic nature. Although many authors have argued in favor of adverbs being analyzed as adjuncts, this proposal may result too loose to account for some distributional effects. In Cinque's (1999, 2004) work, special attention is paid to the fact that adverbs cannot be ordered at random. For example, compare (2a) to (2b) in Italian:³

- (2) a. Gianni ha **sempre completamente** perso la testa per lei.
 'Gianni has always completely lost his mind for her.'
- b. *Gianni ha **completamente sempre** perso la testa per lei
 'Gianni has completely always lost his mind for her'

In this sentence the outcome is grammatical only if the time-adverb *sempre* is placed before an adverb like *completamente* (2a), and the reverse order results in an unacceptable sentence (2b). It is this realization that has led some authors (mainly Alexiadou 1997; Cinque 1999, 2004) to propose that adverbs are generated as specifiers of functional heads. In their view, each adverb would correspond to a particular functional projection, depending on its interpretation and scope, thus enhancing the path to a cartographic approach to syntactic structure. The main challenge of this approach, as authors such as Costa (1998, 2004) have pointed out, would be to account for situations where the same adverb may take different positions without perceptible changes in meaning and grammaticality, as in (3), from Portuguese:⁴

- (3) a. O João **ontem** tinha estado a falar com os amigos.
 the João yesterday had been talking to the friends
- b. O João tinha estado **ontem** a falar com os amigos.
 the João had been yesterday talking to the friends
- c. O João tinha estado a falar com os amigos **ontem**.
 the João had been talking to the friends yesterday

Yet another problem regards the syntactic analysis of adverbs considered to be arguments. As it is the case for benefactives or locatives, argumental adverbs pose a difficulty for the entire analysis of argument structure. Some proposals, such as that of Barbiers (1995) which has been applied to Basque manner-adverbs in A. Elordieta (2003), project these arguments as sisters to V, based on distributional observations. Therefore, it can be said that

³ The example is borrowed from Cinque (1999: 7), examples (20a-b).

⁴ The example is borrowed from Costa (2004: 719), and corresponds to his examples (11a, c, e). I have respected his glosses. The sample presented here does not exhaust the possibilities where the adverb may occur in this sentence, but I have judged it sufficient to present just some cases to make the point.

there are proposals in favour of positing adverbs as adjuncts, as specifiers and even as internal arguments in some cases, thus showing yet again the more than vague status of adverbs in linguistic theory.

In summary, in this subsection I have tried to review succinctly the many difficulties concerning the morphologic, semantic and syntactic analysis of adverbs, in terms of the definition of the category itself. It has been shown that adverbs cannot be univocally defined regarding none of these criteria. In the next subsection I will present alternative approaches by some authors (Emonds 1985, 1987; Baker 2003) that propose to divide adverbs into different categories, as well as some challenges that these proposals face.

2.2. Alternative analyses for adverbs

Taking into account the difficulties to provide a unified definition of the adverb category and to determine which elements belong to it, many authors have tried to analyse words traditionally considered adverbs differently so as to make them fit into other categories. It is the case of Emonds (1985, 1987) and Baker (2003). Before moving on to my proposal, I will briefly review their work here, as it provides a good starting point for my own analysis.

2.2.1 Emonds (1987)

Emonds (1987) noted the fact that the term *adverb* had long been misused to cover a wide range of words that show a very different behaviour among each other. Arguing that categories in a generative model could be defined solely on structural grounds, and based on the distribution of adverbs, he proposed to classify each type he could distinguish within a different category. The categories he could set apart happened to contain words that had not been considered adverbs previously, which led the author to propose that adverbs themselves could indeed be considered as members of other categories and not a separate category in its own right.

Particularly, Emonds (1987: 18-19) argues in favor of classifying adverbs formed by *-ly* as adjectives. The main distributional criterion, also mentioned by Baker (2003), is that they can be modified by the same closed class of *specifiers* known as *degree-words* such as *very*, *rather* or *too* (4a) as well as the same morphemes to form comparatives (4b):

- (4) a. **Very** proud / **very** proudly
 b. **More** convincing / **more** convincingly

Emonds proposes the term *adverbial APs* for those adjectives modifying a verb, adjective or clause, while the term *adjectival AP* would refer to those adjectives modifying a noun. As he explains, adverbial APs can also take the position of specifiers of AP as in *too freely critical*. The main difference between the two is that, while adverbial APs do not take case, adjectival APs can take case in some languages through agreement (think of Latin *Gallia_{NOM.F.SG} est omnis divisa_{NOM.F.SG} in partes tres*). However, this property is derivable of the fact that adjectival APs need a noun to agree with in order to receive case.

In addition to this, Emonds (1987: 19-20) notes that the heads of some adverbial APs do not even take a *-ly* suffix. These, of course, are also to be taken as adjectives. Although he does not develop further the analysis of this class, which I will call *bare adjective adverbials* (§5.3.2), I will show that they deserve a closer look, since they offer a cue as to how words from various categories may become adverbial.

Beyond what has been reviewed up to here, Emonds extends his proposal to other types of words that will not be analysed in this work. As for degree-words, he argues that distributionally they must be distinguished from other so-called adverbs such as *yesterday* and he assumes them to appear in the Specifier position of A. Current proposals, in line with this intuition, tend to analyse these words into a completely different functional projection known as Degree (see, for example, Zwarts 1992; Corver 1997). Regardless of the specific analysis for this type of words, they clearly seem to belong to a kind that needs to be set apart from the one that will be discussed in this work.

On the other hand, deictic words like *now*, *yesterday* or *here*, which have traditionally been classified as adverbs, are argued to be determiners, due to their deictic nature and their distributional properties. In English, they can be objects of transitive prepositions (*until now*, *up to here*). Therefore, Emonds (1987) concludes that this type of word can appear in NP positions only when accompanied by an overt or silent P. As for words such as *upstairs*, *outside*, Emonds proposes to analyze them as mere prepositions, since, just like other prepositions, they can be modified by *right* and they modify nouns and verbs. He also proposes to analyze

connectives such as *however*, *moreover* as Ps. Based on these observations, although departing from Emonds' analysis, in section 5, I will propose for Basque that some of these apparent instantiations of P may actually correspond to another functional head enacting the modification relationship (ModP).

Thus, in Emonds' account (as is widely accepted nowadays, at least since Chomsky 1970; Stowell 1981), there are four lexical categories: N, V, P, and A. Words traditionally known as adverbs can be either subsumed into these categories or posited as specifiers of these categories. Many problems seem to underlie this proposal, the most important one being that all elements posited as specifiers of the above-mentioned categories, also need to project themselves, and therefore, must constitute a category. In current approaches, many of these specifiers have become full-fledged functional categories (see §3.1 for proposals for Basque). This has allowed to treat them as theoretically separate from modifiers such as *yesterday* or *quickly*, although their categorial status is not necessarily clear and will depend on the theoretical approach of the researcher with regards to morphology itself.

Regarding the main interest of this work, which aims at determining whether words such as *quickly* or *supposedly* (and their counterparts in Basque) constitute a category separate from that of adjectives, a remark is in place. Emonds does not achieve the complete conflation of traditional adverbs and adjectives into a single category, since he still perceives the need to distinguish between *adjectival As* and *adverbial As*. However, what he does propose is to assign the properties that distinguish adjectival As (such as *quick*) from adverbial As (such as *quickly*) to the syntactic function that the word fulfills in each case, and not to the underlying category. The properties of adverbial APs are derived from modifying elements that are structurally different from those that adjectival APs modify. What distinguishes *quickly* from *quick* is not that they belong to two different categories but that they modify different elements in each case, and all morphological distinctions are thus a by-product of this capacity to modify various types of words. As a consequence, a word such as *quick* can also function as an adverbial A in *Mark played the song quick*. Although the author does not make it explicit, from this restructuring stems the implication that the properties adverbial APs have, need to be shared with the whole set of elements fulfilling the adverbial function (i.e. above mentioned adverbial PPs, adverbial expressions etc.).

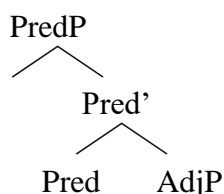
This proposal remains very suggestive, and it is relevant to this work precisely because it paves the way to avoiding positing a category as heterogeneous as that of the adverb. It is this idea of making the theory about categories more minimalist that leads Baker (2003) to proposing a similar solution to that of Emonds (1985, 1987). As I will explain here below, though, Baker takes a step further into defining adjectives without any requirement to distinguish between adverbial and adjectival As.

2.2.2. Baker (2003)

Baker (2003) tries to account for all the lexical categories that should be posited as universal in the theory of grammar. In order to do so, he tries to define categories in terms of semantic relationships that can be encoded by syntactic operations. Thus, according to him, nouns have their own reference, and as such, they are the only ones to bear a referential index by themselves. For that reason, they can bind anaphors, traces and the theta-roles of verbs, among others. On the other hand, verbs are the only true predicates, and as such they can license a specifier, usually by theta-marking it. Nouns and adjectives, on the contrary, need a Pred(ication) projection to do this. At last, adjectives are defined in opposition to the previous two: they are the kind of words that are neither verbs nor nouns. According to Baker (2003: 21), they do not have a characteristic modificational nature, instead, they are some kind of default category, and as such they occupy positions that the two other categories cannot occupy, mainly 1) attributive modification, 2) complement of a Degree head, 3) secondary predicate positions and 4) adverbial positions.

In these terms, Baker argues that so-called adverbs are considered as just another function an unspecified category such as the adjective can fulfill. Interestingly, for Baker, just as for Emonds (1987), the only distinctive characteristic of adverbs is their function, not their categorial characterisation. To account for this, he argues that the functional projection that relates words that have traditionally been viewed as adjectives and those that have been viewed as adverbs is PredP. This projection allows adjectives to modify anything that can become its specifier, independently of its category. Bearing in mind that the main difference that has often been signaled to distinguish adjectives from adverbs is that the former modify nouns, whereas the latter modify almost all other categories, this proposal would perfectly defend that both can be represented under the same functional structure, as in (5).

(5) Baker (2003):



This proposal involves assuming that modification takes place as a relationship between the argument and the specifier of PredP. In section 4, I will signal some of the difficulties of this assumption. However, when it comes to the debate on the categorial nature of adverbs, Baker's proposal involves a step further in establishing one-to-one relationships between syntactic projections and semantic functions. Once a functional projection is assigned to the modificational function that seemed to characterise adverbs, the need to assign a particular category to these types of words becomes superfluous.

Both Emonds' and Baker's proposal share a will to account for adverbs as members of better-defined categories. Emonds (1987) looks at a wide variety of words that have been identified as adverbs and tries to find a place for each of them in different categories. In the case of Baker (2003), on the other hand, he finds the adjectival category to be suitable for adverbs to be fit into.⁵

In this work, following the approach of both authors, I will also try to offer an account of these words that does not require positing an independent category. To do so, I will try to i) assign words considered adverbs into other categories and ii) to find a suitable functional head for some of these types of words. But first, I will present the Basque data that I will deal with, namely, the words that have traditionally been considered adverbs in Basque and the type of words that correspond to *-ly* words in Basque.

3. Data from Basque: so-called adverbs and the morpheme *-ki*

3.1 The account of adverbs in Basque

The tradition of Basque grammar has also made use of the term *adverb* to refer to words that modify verb phrases and sentences (Azkue 1924; Lafitte 1944; Euskaltzaindia 1991;

⁵ However, it must be noted that Baker (2003) only considers so-called manner adverbs.

Hualde and Ortiz de Urbina 2003; *Sareko Euskal Gramatika (SEG)* 2011-2019). As in the grammars of other western languages, this category has included various kinds of words, which vary in their morphology and function. This has resulted in the category of adverbs being as heterogeneous and confusing as in other languages such as English or Spanish. Furthermore, the fact that many adverbial expressions look like PPs in Basque has led researchers into treating PPs and adverbs together, without making much effort to set them apart.

In Fernández Altonaga (in press), I reviewed the different types of words that had traditionally been categorised as adverbs and tried to sort them out into different kinds depending on their morphology. Thus, based on their composition, the following kinds were distinguished: words taking the suffix *-ki*, *-to*, *-ro* (traditionally viewed as adverbializer suffixes); words taking the suffix *-la*; words formed by the suffix *-ka*; participials derived through the suffixes *-rik/-ta*; words homophonous with adjectives; words originated from PPs and words that looked atomic. In what follows, I will briefly present the problems each of these classes pose to the definition of adverbs in Basque. However, note that the proposal I will put forward is for the first set, i.e., that of words taking the suffixes, *-ki*, *-to* and *-ro* as well as of those that are homophonous with adjectives.

Note that other types of words have also traditionally been considered adverbs: evidential, question and negation particles and quantifiers. However, more current proposals discard them as adverbs (as argued in *SEG* 2011-2019), since they behave quite differently from the rest of words considered adverbs. For instance, they usually cannot be piled up, unlike other modifiers such as those in (6):

- (6) *Antza, aspaldi, azkar eraikitzen zituzten etxeak.*
 Apparently long.ago quickly build.IMPV AUX house.DET.PL
 ‘Apparently, long ago they used to build the houses quickly.’

Instead, these particles and words are currently viewed as lexicalisations of various functional heads. For example, Ortiz de Urbina (1989) and Laka (1990) envisaged Basque *ez* ‘no’ as the phonological realization of some functional head related to negation, be it Neg for Ortiz de Urbina (1989) or Σ (Sigma) for Laka (1990). Modal and interrogative particles *al*, *ote* and *-a* are deemed to be the realization of some specific functional head, expressed as ParticleP (Monforte 2021). As for quantifiers, it must be noted that little research has been done on the

quantifiers that attain the verbal or sentential domain. However, the extensive work carried out for Basque by Artiagoitia (2002, 2004) and Etxeberria (2005 and on) shows that quantifiers need to be assigned their own projection when they affect the nominal domain, and a similar proposal could be considered for those quantifiers that modify propositions too (as in *Ez dut asko lan egin* ‘I have not worked **much**’).

On the other hand, the suffix *-la* is not a productive suffix. Only a handful of words contain this suffix (*honela* ‘this way, thus (1st degree)’, *horrela* ‘that way (2nd degree)’, *hala* ‘that way (3rd degree)’, *bestela* ‘the other way, otherwise’, *bezala* ‘as, like’), and in all of the cases, it does not attach to adjectives as is the case of *-ki*, but to demonstratives (*hor+la>horrela* ‘that way’, *beste+la>bestela* ‘the other way, otherwise’). It seems that all of these words are lexicalized items today, and therefore, we cannot currently talk of any derivation taking place in these cases. However, in origin, this suffix may have been a postposition (de Rijk 2008: 241).

As for *-ka*, the least that can be said is that more research is needed. It is not clear whether we are dealing with a single suffix in all cases or various homophonous morphemes, since this element can be attached to categories as varied as: nouns (*tiroka* ‘shooting’), PPs (*barrezka* ‘laughing’), non-inflected verbs (*jaurtika* ‘throwing’), distributive numerals (*binaka* ‘in couples’) or other deictics (*han-hemenka* ‘here and there’). Berro (2017) proposed a unitary analysis for this suffix, positing it is a lexical item that conveys pluractionality.

-Rik/-ta are suffixes that attach to verbs. In fact, these suffixes very often derive so-called *adverbial participles*, since they often seem to generate a stative adjective out of a verb, which then functions as a resultative secondary predication. However, note that, as pointed out by Krajewska (2013), the suffix *-(r)ik* has been used in the past to derive words that nowadays can only be interpreted as adverbials, not as resultatives, such as *oinutsik* ‘bare footed’, *bilutsik* ‘naked’. The relationship between these participials and so-called adverbs should be explored further.

Some other words that traditional Basque grammars consider adverbs, fully overlap in their form with PPs. This is the case of *azkenean* ‘finally’, *ustez* ‘apparently’, or *gora* ‘up’.

These words, although they are usually perceived as a single word in Basque, can be transparently analysed as [NP+P] or [axial-part+P] compounds:

- (7) a. *azken-ean*
 end-INES
 ‘In the end, finally’
- b. *uste-z*
 belief-INS
 ‘Apparently’
- c. *go(i)-ra*
 up-ALL
 ‘Up’

The main reason for considering them adverbs is that they nowadays convey some sort of unitary meaning, that in some cases, is lexicalised to the extent that the speaker does not notice the compositional origin of the construction. However, this seems a rather weak reason to argue for an independent category, and in section 5, I will try to show that these words can be analysed as NPs or PPs embedded in a functional structure that enables them to act as modifiers.

A more difficult case is the one posed by words such as *gaur* ‘today’, *aspaldi* ‘long time ago’, which have been described as *atomic* above. These words are nowadays morphologically simple, and only a diachronic perspective reveals their origins in DPs and PPs: *gaur* < *gau* ‘night’ + *haur* ‘this’ (*Orotariko Euskal Hiztegia*), *aspaldi* < *asko* ‘many’ + *aldi* ‘time’ (*Euskararen Hiztegi Historiko-Etimologikoa*) These etymologies do not even seem to be retraceable in some other cases: *iaz* ‘last year’, *atzo* ‘yesterday’, *bart* ‘last night’. However, the distribution of these elements is exactly the same as that of PPs with similar meanings. Take for example (8):

- (8) a. [*Iaz*]?? *joan ziren*. ‘They went last year.’
 b. [*Aurre-ko urte-an*]_{PP} *joan ziren*. ‘They went last year.’

The only difference seems to lie on the fact that *iaz* constitutes a single word with no recognisable compositionality, but distributionally, both elements behave in a parallel way. Hence, I believe it is possible that further functional structure may lie within these words too, which would avoid positing a category only to include these elements.

Beyond specific proposals, what needs to be remarked is that an overview shows that very few, if any, of the words that have traditionally been termed adverbs can be identified with a fully autonomous category. Many of them share their form and properties with other categories such as adjectives, participles, NPs and PPs. This enforces the hypothesis that adverbs are not in and of themselves a separate category, but rather a function: the modification non-nominal elements.

Nevertheless, the existence of *-ki*, (*-to*, *-ro*) words in Basque, analogous to words formed by *-ly* in English or *-ment(e)* in Romance languages may look like an obstacle to this hypothesis. It has often been claimed that these morphemes are indeed derivative suffixes that derive adverbs out of adjectives. Denying the existence of an adverbial category would leave pending the analysis for these morphemes, which apparently seem to have no other commitment but to allow adjectives to change category. In this work, I will try to demonstrate that words formed by *-ly/-mente/-ki* are not a caveat to my hypothesis, since a closer look to these morphemes reveals that they are not regular derivational suffixes. In any case, before moving on to the analysis, in the following lines I am going to introduce the particular *-ki* suffix.

3.2. The *-ki* morpheme and other suffixes with a similar function (*-ro*, *-to*, *-kiro*, *-roki*)

The morpheme *-ki* is the Basque correlate of English *-ly* or Romance *-ment(e)*. This morpheme is present in all Basque dialects and in all periods, at least since the XVI. century, when the history of written Basque starts. Much as it happens with its homologous morphemes, in Basque too, *-ki* has been claimed to be a derivational morpheme that turns adjectives into adverbs, but this analysis has also found some contradicting evidence. In the following section (§4), I will present the theoretical problems posed by these morphemes in Romance and English (§4.1) and in Basque (§4.2). But before that, in this subsection, I shall present the morpheme *-ki* and other morphemes with similar function in Basque and review the descriptions they have been offered.

The morpheme *-ki* has been identified in main contemporary Basque grammars (Lafitte 1944: 36, 155; Villasante 1974: 96-100; Hualde & Ortiz de Urbina 2003: 193, 347-348; de Rijk 2008: 235-237) as a morpheme that takes adjectives and returns verb or sentence modifiers.

However, unlike *-ly* or *-mente*, it very rarely generates adjectival or adverbial modifiers.⁶ Likewise, some other contexts where *-ly/-mente* adverbs are expected are not usual for Basque *-ki*. Such is the case of words with a value of degree (9a), or some pragmatic uses of the modifier (9b):

- (9) a. Completamente perdido. / #Osoki/osotoro galdua
 b. Happily, Fred is not coming. / *Pozki, Fred ez dator

In all of these aspects, *-ki* functions in a similar way to other suffixes in Basque which have become unproductive or belong to particular varieties of Basque. These are the suffixes *-ro*, *-to*, *-kiro* and *-roki*.⁷ As regards the suffix *-ro*, it seems that it once was used in all varieties of Basque (Villasante 1974: 117; de Rijk 2008: 233-235), although nowadays it is only found in lexicalised items such as *dongaro* ‘meanly’, *luzaro* ‘for long’ or *oparo* ‘abundantly’. As for *-to*, it belongs to lexicalised items from Western varieties such as *txarto* ‘badly’, *zatarro* ‘uglyly’, and the much more extended *ondo* ‘well’. It is no longer productive either, and it is difficult to fully understand its past distribution since it is preserved in only a few words. Finally, suffixes *-kiro* and *-roki* are obviously the result of adding one suffix to the other. According to de Rijk (2008: 235) *-kiro* is the form used in some Eastern varieties to add the suffix *-ro* to adjectives ending in a consonant: *ema-ro* but *labur-kiro*, although it is also found with some adjectives ending in a vowel as *emekiro*, *handikiro*, maybe as a result of analogy. De Rijk (2008: 235) describes *-roki* as a mere variant of *-ro* corresponding to Eastern dialects.

As for today, these suffixes are either non-productive variants or variants with the same distribution as *-ki*, and since only *-ki* is fully productive and well-documented throughout, from now on I will concentrate solely on this morpheme. One could entertain the hypothesis that an analysis that proves valid for *-ki* would also be applicable to the other suffixes for the period where they were productive, although it could also be the case that other analyses would be needed. Since this issue would ask for diachronic study of these suffixes, I will leave it aside for the time being. In any case, some hints as to what the etymological origin of these morphemes may be are presented in de Rijk (1996 [1998]).

⁶ Nonetheless, some exceptions I can think of are: *bereziki* ‘specially’ as in *bereziki aspertua* ‘specially bored’ or *biziki* ‘much, very’ as in *biziki alai* ‘very cheerful’.

⁷ The morpheme *-toro* and *-tsa* may also be mentioned, and de Rijk (1998[1996]) includes it in its review of adverbial suffixes. However, these suffixes are present in very few words, mainly *osotoro* ‘completely’ for *-toro* and *untsa* ‘well’ for *-tsa*.

Regarding *-ki*, one remarkable feature is that it does not seem to add any semantic information in itself. Its only function seems to be to change the possibilities of modification of the adjective from the nominal domain to the verbal or propositional domain. This has traditionally been perceived as a change in category from adjective to adverb. As I have argued above (§2.1), since it is not at all clear what is meant by the term *adverb*, it seems more useful to point at the functional and distributional differences underlying the terms *adjective* and *adverb*. This feature was already remarked by Fábregas (2007) for Spanish *-mente*, and as he explains, it constitutes an argument to build the case against these suffixes being actually derivational, at least in the traditional sense.

Note also that when words are generated by combining with *-ki*, no vowel change takes place (10). This differs from the behavior of other suffixes in Basque, which when combined with another word, force a change in the vowel of the last syllable, as in (11):

(10) Maite + *-ki* > maiteki ‘lovingly’

(11) Maite + *-le* > maitale ‘lover’

Maite + *-garri* > maitagarri ‘lovely’

This feature is not only found in this suffix, other suffixes which have traditionally been recognised as derivational also fail to produce vowel changes. The difference between the two types of suffixes might only lie on the fact that those that produce a vowel change historically grammaticalised before, while the vowel change was still a productive rule in Basque. In turn, the other suffixes grammaticalised or cliticised later. However, it might also constitute evidence that in the speaker’s mind, this suffix does not fully function as a suffix. Other argument in favour of the latter account is that the suffix *-ki*, much as Spanish *-mente*, seems to be able (at least for some speakers) to take two adjectives bound by coordination as its base: *zehatz eta osoki esan* ‘to say it concretely and entirely’.

There is an aspect, though, in which *-ki* does not fully correspond to the suffixes such as *-ly* and *-mente*: although *-ki* attaches overwhelmingly to adjectives, it may sometimes take nouns too. These cases have long been identified by grammarians such as Laffite (1944: 155), Villasante (1974: 96) and de Rijk (2008: 237), and correspond to a handful of cases like *anaiki*

‘brotherly, fraternally’, *gizonki* ‘manly’ and *maisuki* ‘masterly’. Despite being denominal, these words still constitute adverbials, unlike words like *emazteki* ‘woman’ or *beroki* ‘coat’, where some (maybe different) *-ki* morpheme attaches to a noun to generate another noun.

In other cases, the suffix *-ki* also attaches to nouns with the instrumental postposition *-z* to generate adverbials: *artezki* ‘rightly, skillfully’, *dolorezki* ‘painfully, anxiously’, *egiazki* ‘truly, really’, particularly in Eastern varieties of Basque. In general, it must be said that Eastern varieties use this suffix more productively than other varieties. In more Western varieties other strategies to generate modifiers may be found, like adding the inessive postposition to the adjective (*itsuki* vs. *itsuan* ‘blindly’) or using bare adjectives (*apal esan* / *apalki esan* ‘to say modestly’). Actually, de Rijk (1998 [1996]) notes the fact that the suffix *-ki* may not have been present in Western varieties of Basque until the XVIII. century. In any case, nowadays it seems that the suffix *-ki* might not be specialised for adjectives but may also attach to other categories (NPs and PPs, as far as we know) to generate modifiers beyond the nominal domain as in *anaiki* ‘brotherly’ or *dolorezki* ‘painfully’. In fact, and particularly in the Eastern varieties, perfect participles may also take this suffix as in *deliberatuki* ‘deliberately’. Crucially, the fact that the same suffix may attach to different categories suggests that it cannot be interpreted as a regular derivational suffix. All of these cases will be directly addressed in section 5.

3.3. Interim conclusions

Up until now, I presented the issues that concern so-called adverbs in general, and I introduced the words that have been considered adverbs in Basque. I have tried to explain the various difficulties that underlie the definition of such a heterogeneous category, and I have presented some proposals by which adverbs could be classified into better defined categories. I have tried to prove that such a proposal can be applied to Basque too, and that the words that have constituted adverbs in Basque may be better analysed into other categories.

As I have mentioned, a seeming obstacle to this hypothesis may be the existence of a *-ki* suffix that looks specialised to turn adjectives into adverbs. However, under closer scrutiny, this morpheme seems to behave like a recently grammaticalised element, and not fully as a derivational suffix. In fact, it is noteworthy that in Basque, the suffix *-ki* does not attach solely to adjectives but also to words from other categories.

From now on, I will concentrate on the analysis of words formed by *-ly/-mente/-ki*. I will present previous syntactic and semantic analyses for this kind of words, and I will defend the hypothesis that best suits the data from Basque. Through this analysis I will prove that *-ki* words need not be classed into an independent category neither from a morphosyntactic or from a semantic point of view, and as a consequence, I will conclude that *-ly/-mente/-ki* words can be proposed to belong to other categories.

4. *-ly/-mente/-ki* adverbs

4.1. Introduction to the discussion

Some of the most recognisable adverbials are known to be those created by adding suffixes similar to *-ly* in English or *-mente* in Romance languages to an adjective. The result of this combination are mainly manner adverbials, but they can also belong to many other types: subject-oriented adverbials (***Roughly***, *he closed the door*) or speaker-oriented adverbials (***Unexpectedly***, *he closed the door*), time adverbials (***Previously***, *he had closed the door*) or quantifying adverbials (*barely*, *scarcely*). Particularly in English, *-ly* adverbials have proved to be so versatile that Huddleston and Pullum (2002: 563-565) propose that the category *adverb* should be defined as the set of words that are either formed by *-ly* or can be substituted without change in the meaning by a *-ly* word (e.g. *almost* ~ *barely*).

However, when considering *-ly* or *-mente* derivational suffixes, various issues arise. In Romance languages *-mente* is an element that can take its own intensity accent (Kovacci 1999: 709), much as if it were an independent word. In addition, the root adjective to which it is attached must be in the feminine (sp. *perfectamente*, fr. *parfaitement*, it. *perfettamente*, port. *perfeitamente*, cat. *perfectament*), a marked form in all these languages, but it is the gender-agreement value the word *ment(e)* ‘mind’ would require independently. Moreover, two coordinated adjectives can be attached to a single *-mente* suffix in Spanish: *simple y llanamente*, *clara pero constantemente*, although not in other Romance languages like Italian. This fact strikingly violates the basic observation that no syntactic operations can take place within the base of derivational suffixes. For this reason, explaining the behaviour of this type of adverbials is one of the main challenges of any hypothesis that aims providing an analysis of so-called adverbs.

It is important to bear in mind that, as was explained in section 2.2, various authors (Jackendoff 1977; Emonds 1987; Baker 2003; Zabala and Odriozola 1994 for Basque) have remarked that these adverbs tend to behave in ways similar to adjectives. On the one hand, they take the same degree-words and comparatives (*very proud/very proudly, more convincing/more convincingly*). On the other hand, Baker (2003: 232) also presents data from some non-Indo-European languages (such as Edo, Mapudungun or Lega) where there is absolutely no morphological difference between adjectives and so-called adverbs. Some other languages, instead, do not have either of them, and use the same strategy to make up for both. Mohawk, for instance, makes use of stative verbs in order to modify both nouns and verbs:⁸

(12) Mohawk (Baker 2003: 232, ex.74):

Yó - *hsnor* - *e'ro* - *[a]teyahr-ú* - *tye'ne owirá'a*.
 NsgSBJ - be.quick - STAT MsgOBJ - grow-STAT - PROG NE baby
 'The baby is growing quickly.' (lit. 'It is quick that the baby is growing')

All these observations lead to the conclusion that words created by combining the *-ly/-mente/-ki* element have very much to do with adjectives themselves. Indeed, one of the issues to be considered is whether these suffixes are able to change category, and if they do, to which category they convert the adjectives they attach to. It is crucial to know what semantic and syntactic evidence there is to posit this change in category. Parallel to this would run the question of what, if any, the semantic change that a *-ly/-mente/-ki* element operates on is. While providing an answer to these questions, the striking morphological behaviour of Romance *-mente* should also be explained. To tackle these issues, in the next section (§4.2) I will first review some of the syntactic and semantic accounts of the *-ly/-mente* morpheme in the literature.

4.2. Previous morphosyntactic analyses of *-ly* and *-mente*

Here I will review two proposals for an analysis of morphemes like *-ly* and *-mente*, that I consider provide an appropriate framework to analyse the case of Basque. The first one corresponds to Fábregas (2007), who considers Romance *-mente* to be a feature-matrix with no categorial specification whatsoever, and projects it in the specifier of a PredP functional projection. The second one belongs to Rubin (1994), who posits the existence of a functional

⁸ Although see Baker (2003: 4-6) on the discussion on whether Mohawk stative verbs denoting properties are really the same as other kinds of stative verbs in this language, and therefore, whether they are not to be considered adjectives.

head, Modification Phrase (ModP), which introduces all modifiers and acts as a syntactic means to enforce a semantic type-shift. Within this view, he perceives *-ly* and *-mente* as overt instantiations of a Mod head. At the end of this section, I will provide a critical analysis and comparison of both proposals, to finally argue in favour of Rubin's proposal for Basque.

4.2.1. Fábregas (2007)

Fábregas identifies three characteristics of *-mente* adverbials that have been to some extent overlooked in the literature on this topic. Firstly, he points at the fact that *-mente* adverbials are predicated over non-nominal categories, which in turn, may correspond semantically to neo-davidsonian events, subevents or speech-acts. In the second place, the *-mente* element does not alter the semantics of the adjective, and therefore, the *-mente* adverbial combines only with those predicates that the adjective in its basis may combine with. For example, *#detectar el cancer cuidadosamente* 'detect the cancer carefully' results in an unacceptable combination because the adjective *cuidadoso* 'careful' may only modify a process-event, a subevent that is not present in a verb like *detectar* 'to detect' (Fábregas 2007: 6-7). And finally, the author argues that there is a full adjective inside a *-mente* adverbial, which enters into an agreement relationship with the element *-mente*. According to Fábregas, only this way we may explain the fact that the adjective within any *-mente* adverbial occurs in its feminine singular form. These characteristics, as he argues, point at the fact that *-mente* cannot be interpreted as a derivational suffix, as it has been usually presented, but neither as an inflexional suffix or an element entering into a compositional relationship.

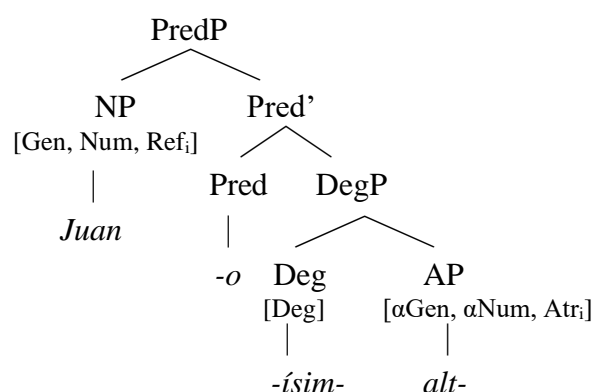
To explain these facts, Fábregas offers a solution by which there is no such thing as a *-mente* adverb, but an adjective that enters into a formal relation with a feature-matrix that lexicalises as *-mente*. Fábregas inserts this analysis into a nanosyntactic account of morphology (Ramchand 2008), where categories do not constitute an independent reality but are just the result of particular syntactic configurations (Hale & Keyser 2002).

Fábregas assumes Bowers' (1993) proposal that adjectives correspond semantically to properties that in order to be predicated need further functional structure. This structure is represented as a PredP projection that takes the adjective as its argument and the constituent of

which the adjective is being predicated as a specifier. As I have already mentioned (§2.2), Baker (2003) also assumes this idea.⁹

According to Fábregas (2007), semantically, the function of a Pred head would thus be to enforce the semantic operation known as *lambda-abstraction*. In other words, through this additional functional structure, the adjective, which only denotes a property, becomes in need of an argument to saturate its meaning, that is, it is in need of something to predicate the property of. In Fábregas' proposal, this PredP structure takes DegP as its argument, which includes the adjective with the functional structure allowing it to denote a degree. Thus, the structure of a regular attributive adjective would be the following:

(13)



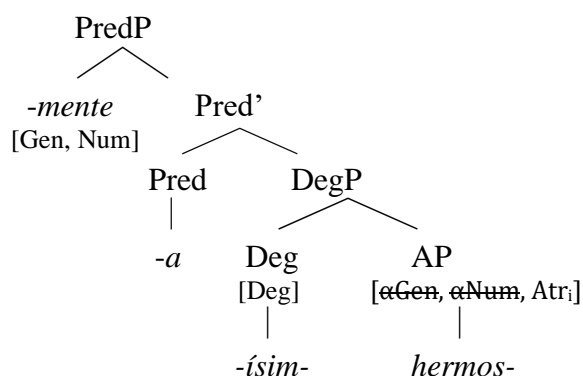
Crucially, this structure is generated by two syntactic processes: on the one hand, the morphological agreement takes place through feature-checking between the adjective and the noun in the specifier of PredP. According to Fábregas, the features that need to be checked are [Gen(der)] [Num(ber)] [Deg(ree)] and [Atr(tribution)]. The latter feature is related to the second process that is assumed to take place in this structure: that of predication itself. For the adjective to predicate its property it needs to coindex its [Atr] feature with a [Ref(erence)] feature present in all constituents with referentiality, be them entities or events.

In order to explain the behaviour of *-mente* adverbials, Fábregas assumes that in these cases the same structure as for adjectives is involved. However, here the two processes

⁹ Bowers (1993) proposes a Pred projection as a functional projection that takes as its argument all the categories that may act as predicates, verbs included. However, Baker (2003) assumes the Pred projection over verbs may be identified with a vP/VoiceP projection and proposes to leave PredS as a functional projection specialized for non-verbal elements.

described above are dissociated. Morphological agreement takes place with *-mente*, which is located in the [Spec, PredP] position (see 14) and constitutes a matrix containing interpretable features for gender and number. This explains the fact that the adjective occurs in Romance in its feminine form, since this is the value for the gender feature required by the feature-matrix *-mente*.

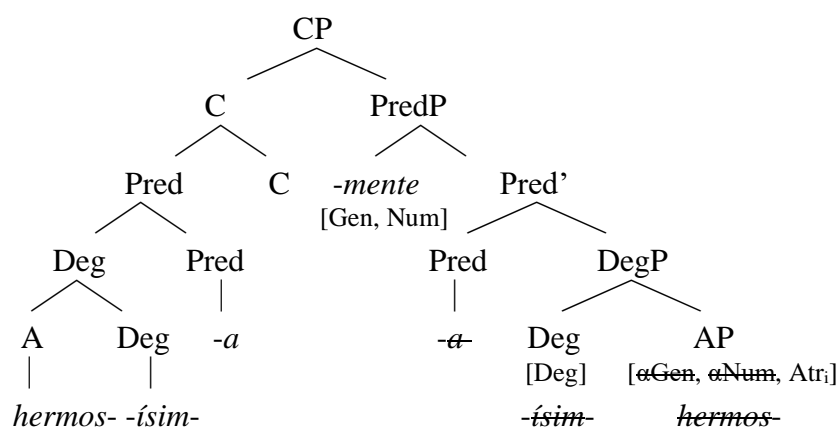
(14) from ex. 27 in Fábregas 2007



However, since *-mente* lacks any referentiality, the attributive feature of the adjective has to be satiated with some other element in the sentence. This relation is formalised through coindexation and corresponds to the predication over the event or speech act that the adverbial is modifying. According to Fábregas, this proposal would not predict what kind of semantic relationship this [Attribution] feature establishes, so different kinds of semantic objects can entertain different relations which are not predetermined in the syntax.

To derive the order found in Spanish (*Adj-mente*) Fábregas argues that the adjective moves cyclically to a C head that would also take nominal categories like PredP and PP. This proposal, although it is not much developed, is based on evidence from Rafel (2000) that PPs may also be arguments of a CP structure. The resulting structure, thus, would be as follows:

(15) Based on Fábregas 2007: 15, ex.25



In few words, Fábregas posits *-mente* as some kind of defective noun lacking referentiality, and therefore allowing the adjective to be predicated of other elements in the sentence. In terms of grammaticalization, *-mente* could be conceived as a noun that has become a relational element by losing its referentiality.

When looking at the semantics of this proposal, though, two questions arise: (i) it looks as if, in the end, actual predication took place through coindexation. If that is the case, what is the motivation for generating a PredP functional structure over the adjective? PredP should not be just the formal scaffolding needed for morphological agreement to take place; and (ii) this structure does not express straightforwardly the fact that, presumably, the constituent that the *-mente* adverbial modifies is precisely the one to which it adjoins. The coindexation relationship does not in any way restrict the possibilities of modification of the adverbial, although, it is clear that, independently of the syntactic status envisaged for adverbials, the possibilities of modification are constrained precisely by its syntactic positioning (Jackendoff 1977; Travis 1988; Cinque 1999).

Nonetheless, this proposal has the advantage of explaining in a simple way the morphological anomalies found in Spanish *-mente* adverbials: the fact that the adjective occurs in the feminine form and that it may occur conjoined (as in *simple y llanamente* ‘lit.: *simple and plainly’). The order of elements, in turn, is explained through a somewhat non-standard proposal and the semantic relations are formalised only in a generic way. In any case, semantically, this structure has the advantage of explaining why this kind of adverbials can modify not only events but also speech acts or subevents within a verb.

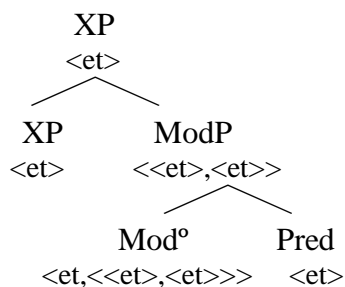
The last observation I want to make is that this structure, in principle, applies only to adjectives, the only category that combines with *-mente* in Romance languages. As I will explain in due time (§5) for the analysis of Basque *-ki*, it must be taken into consideration that this element combines with words other than adjectives. Therefore, in this sense, an analysis like Fábregas' falls short of explaining the whole behaviour of the Basque suffix *-ki*.

Fábregas' analysis serves as a basis to consider the *-ly/-mente* element a grammaticalised morpheme with only a functional meaning. It points at some characteristics that need to be explained and it proposes a formal structure that enables to account for them. However, semantically, some issues arise. To face them, I will review some other proposal that will also account for the data put forward by Fábregas (2007) while providing a clearer semantic analysis of the function of this suffix.

4.2.2. Rubin (1994)

The analysis of Rubin (1994) resembles that of Fábregas in many formal aspects but differs in some relevant points. Rubin proposes a syntactic analysis with the goal of accounting for all types of modifiers. According to this proposal, all modifiers would be characterized by their giving rise to a functional structure conceived as a Modifier Phrase (ModP). ModP can take as its argument any phrase that acts as a modifier: NPs, PPs, APs or CPs. To enact the modification, ModP has to adjoin to the phrase that it will modify (16), projecting, as it is standard, a node of the same category as that of the constituent being modified. Rubin's proposal is retaken and represented by Scontras and Nicolae (2014), as in (16):

(16) Based on Scontras & Nicolae (2014: (24)):

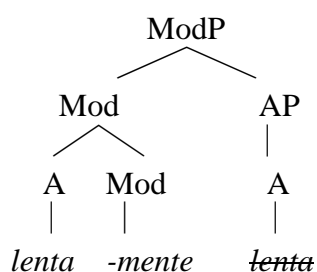


Crucially, in this proposal, ModP acts as a type-shifter, it takes predicates and returns predicates of predicates. It does not fill its specifier position, and therefore, the modification

relation gets established between the argument and the element to which ModP is adjoined. Nonetheless, Rubin (1994: 151) does conceive an agreement relationship between the argument of ModP and the Mod head. Depending on the type of modifier, Mod^o may present different features, and therefore, may require the argument to be of different kinds. The agreement then takes place through feature-checking in head-to-head movement.

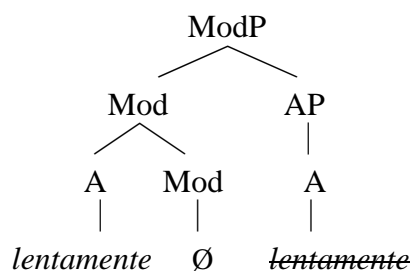
This proposal leads Rubin to take adverbs like complex constituents rather than a simple category. According to this author, *-ly/-mente* adverbs would actually be ModPs where the *-ly/-mente* element is precisely the lexicalization of the Mod head (Rubin 1994: 153-154). In languages like Spanish, *-mente* would take as an argument an adjective, and would require it to agree with its gender and number features. Head-to-head movement provides the expected word order. The head that is moved may also be a coordinate structure in modern Spanish, allowing him to explain why structures such as *lisa y llanamente* may be encountered:

(17)



In Italian, on the contrary, *-mente* does not take coordinate structures. This, according to Rubin, suggests that in Italian the structures A+*-mente* have become lexicalised, and are the manifestation of the A head:

(18)



In other languages, such as Romanian, adjectives do not take a suffix like *-ly/-mente* to become modifiers. In turn, Romanian presents a morpheme *de* that is found in many other

modifying structures, such as, i) modifying PPs (19), ii) modifying APs (20), iii) modifying NPs (21) iv) verbal modifiers (known as *tough* constructions) (22), and v) relative clauses with no overt relative pronoun (23):

- (19) *Cutia *(de) la bibliotecă conține niște cărți.*
 box-the DE in library contains some books
 ‘The box in the library contains some books.’ (Rubin 1994: 16, ex. 2a)
- (20) *Problema este (curios de) grea.*
 problem-the is (curious-agr DE) tough+agr
 ‘The problem is (curiously) tough.’ (Rubin 1994: 16, ex. 6a)
- (21) *L-am făcut de obicei așa.*
 it-have.1sg done DE custom so
 ‘I usually did it so.’ (Rubin 1994: 18, ex. 8a)
- (22) *Problemele sînt greu de înțeles.*
 problems-the are difficult-agr DE understood
 ‘The problems are difficult to understand.’ (Rubin 1994: 20, ex. 11a)
- (23) *Omul de l-am văzut cântă bine.*
 man-the DE him-have.1sg seen sings well
 ‘The man I saw sings well.’ (Rubin 1994: 61, ex. 59b)

In fact, this pattern is found in languages other than Romanian. Rubin explains the cases of Chinese where a morpheme *de* occurs with modificational expressions within NPs (1994: 95); prepositional and adjectival modifiers, *possessor phrases*¹⁰ and relative clauses. In Tagalog too, the *-ng* morpheme traditionally known as linker also occurs with modifiers linked to nominal expressions. In fact, Rubin’s (1994) proposal has more recently been restated by Scontras and Nicolae (2014) to analyse Tagalog linkers. Somehow relatedly, in Russian, the distinction between long-form and short-form adjectives is taken by Rubin (1994) and Bailyn (1994) to be the proof of overt modification-marking morphology. Hence, Rubin concludes that

¹⁰ Chinese *possessor phrases* are constructions where the possessor and the possessed occur next to each other, without any other intervening mark to express the possession relationship (apart from *de*):

(i) *Zhangsan de shu.*
 Zhangsan DE book
 ‘Zhangsan’s book’ (example from Rubin 1994: 100, example 5)

in all these cases, overt morphemes marking modification are instantiations of the same functional head: ModP.

Crucially, ModP can take any category as its argument. And this, precisely, is relevant for the analysis of the Basque *-ki* element, since, as I have previously explained (§3.2.1), this suffix attaches mainly to adjectives, but may also occur with nouns, PPs and perfect participles.

A remarkable difference between Rubin's and Fábregas' approaches lies precisely on their conception of the semantic relation the adverbial establishes with the element it is modifying. In fact, the issue of how to represent semantically (and thus, in the syntax-semantic interface) the modificational relation has been long debated, and it is far from being settled. Unlike in Fábregas' proposal, in Rubin's the semantic derivation is perfectly explicit, and can be contextualized within the ongoing debate in formal semantics concerning the representation of modification. In the next subsection (§4.2.3), I will set Rubin's proposal in this context, to argue that this proposal is in keeping with current approaches as has been proved, notably, by Scontras and Nicolae (2014). I also argue that this proposal needs a particular conception of the ModP projection by which Mod would encompass a wide array of modifiers of different semantic types and characterized by different features.

4.2.3. *The issue of modification in formal semantics*

By which formal strategies should modification be encoded has been a matter of great debate within formal semantics. Mainly three different strategies have been proposed (see Scontras and Nicolae 2014: 19-20 and McNally 2016 for a review) involving:

- i) various processes of type-shifting
- ii) new operations like *Predicate Modification* (Heim and Kratzer 1998) or *Restrict* and *Modify* (Chung and Ladusaw 2004, 2006)
- iii) positing new functional heads in the syntax such as ModP (Rubin 1994, 2003; Scontras and Nicolae 2014).

All these proposals take modifying adjectives, adverbs and even other syntactic constituents (PPs, Relative Clauses) to be of the same semantic kind. Authors that posit a new operation for modification find it applicable to all of the previously mentioned syntactic structures. The authors that propose type-shifting to a new semantic type for modifiers, have

posited a shift to a type $\langle\langle et \rangle, \langle et \rangle\rangle$ that takes predicates and returns predicates of the same type. This intuition, by which modification consists in adding information without changing the semantic type of the output, is pervasive and has been presented as a desirable outcome for any proposal (McNally 2016).

This assumption is also preserved in Rubin (1994), who proposes a unique functional head, *Mod*, as a way to introduce all these structures into the syntax via adjunction. Thus, there seems to be a certain amount of consensus among semanticists that seemingly different syntactic objects such as PPs, Adjectives/Adverbs and Relative Clauses should belong semantically to the same kind, whatever its syntactic formalization may be. This, instead, reinforces the idea that adverbs themselves may not be an isolate category in any sense, either semantic or syntactic.

In semantic terms, Scontras and Nicolae (2014) argue that of the three strategies to account semantically for modification —i.e., positing type-shifting to a new semantic type, new operations or a new functional head—, the latter is the most balanced one. According to these authors, positing further functional structure allows for modification to be computed through Functional Application, in keeping with the Fregean postulate of compositionality, while at the same time it requires no new semantic types, thus keeping the lexical entry simpler and proposing no new operations, keeping the theoretical apparatus at the minimum.

In Rubin's proposal, modification is perceived as an operation requiring type-shifting of a modificational element in order to obtain a predicate of the same semantic type as in origin. Rubin mainly treats predicates of type $\langle et \rangle$; nonetheless the same operation can be presumed of other types of predicates, so that modification can take place over verbs, but also over CPs or other projections of the left-periphery. This would allow the modification of subevents and speech-acts noticed by Fábregas. Such assumption would need to conceive of *ModP* as the common functional projection for semantically different types of *Mod* heads. Equally, in terms of agreement, each *Mod* head would have different features. In any case, all *Mod* heads would be different manifestations of the same head that is in charge of type-shifting a category to convert it into a modifier, that is, into an element that is compositionally added to a predicate and results in a projection of the same category and semantic type as before.

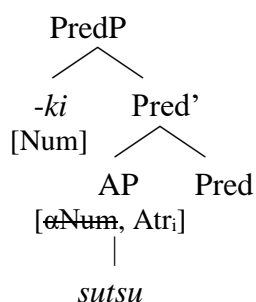
This structure, as mentioned by Scontras and Nicolae (2014), keeps both the assumption that composition takes place by Functional Application and allows to keep semantic types simple. As mentioned above, empirical proof of the existence of such a projection is presented in Rubin (1994) and Scontras and Nicolae (2014) from languages with so-called *linkers*: morphemes that occur only in contexts of modification. Some of the data analysed by Rubin comes from Romanian, Chinese, Tagalog, Russian and German while Scontras and Nicolae explain additional data in Tagalog with this analysis and propose that data of Chamorro offered by Chung and Ladusaw (2006) may be interpreted under the same light too. With these proposals in mind, in the next section (§5) I will argue that Basque *-ki* may be analysed in the same way, providing extra arguments for this proposal.

5. An analysis of *-ki* adverbials

5.1. The analysis of *-ki* by Fernández Altonaga (2021)

In Fernández Altonaga (2021) I presented some of the difficulties of interpreting the relationship between *-ly* and the adjective to which it attaches as one of attribution, the way Baker (2003) does and I argued a similar analysis to Fábregas' (2007) can be applied to Basque adverbs based on the suffix *-ki*. Indeed, *-ki* is comparable to both *-ly* and *-mente* in that it attaches to adjectives in order to generate adverbials, and the kinds of adverbials it forms tend to be manner or sentential adverbials (speaker-oriented, subject-oriented or domain adverbials), although they can practically belong to any type of adverbials, e.g., quantifier adverbials. I proposed that in Basque the same structure as in Fábregas (2007) could be assumed, and that *-ki* would have some number feature, through which morphological agreement would take place. The same problem as in Spanish has to be faced in order to explain the linear order.

(24) Fernández-Altonaga 2021



This analysis, obviously, presents the same downsides as that of Fábregas: the modificational relation between the modifier and the modified element is not formally

established but through coindexing, a formalization that has no equivalence in terms of semantic compositionality.

However, in addition to these shortcomings, a relevant fact was overlooked in that analysis: the suffix *-ki* in Basque, unlike Romance *-mente* or English *-ly*, can take not only adjectives, but also words of other categories such as nouns, PPs or participles. This leads me to reconsider my previous proposal, and in the analysis that I will present in this dissertation, I show that *-ki* is indeed an instantiation of a Mod head, in line with Rubin's (1994, 2003) and Scontras and Nicolae's (2014) proposal.

5.2. A new analysis for Basque *-ki*

As I have mentioned, Fábregas' (2007) proposal seems suitable to a certain extent to explain the behaviour of the suffix *-ki* when attached to adjectives. However, although this fact is usually overlooked, the Basque suffix *-ki* does not occur with adjectives solely. It can also be found with a few nouns, many instrumental PPs and some participles to produce adverbial modifiers. It is precisely because of this that I will argue the need to interpret the suffix *-ki* as an instantiation of the ModP first proposed by Rubin (1994).

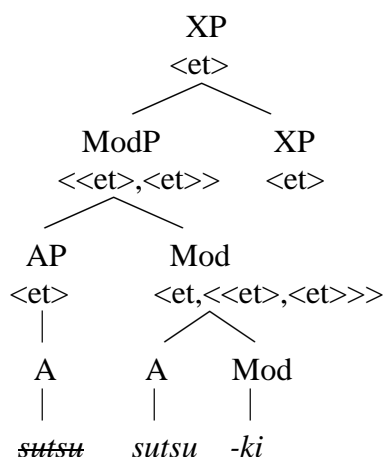
Following Abney (1987) in his definition of what a functional category is, Rubin (1994) proves that morphemes occurring in Mod fulfill all criteria to be considered functional items: i) they belong to a closed class, ii) they are dependent in phonological and/or morphological terms and iii) they provide no descriptive content, but a second order meaning (in this case, for Rubin 1994: 34, the capacity of type-shifting). Arguably, the morpheme *-ki* fulfills all these criteria too, since it belongs to a closed class of suffixes that generate adverbials, it is phonologically dependent on the word it attaches to and has no referent at all. Therefore, in what follows, I will assume that *-ki* is an instantiation of the functional head Mod and I will describe the internal composition of all adverbials generated through this suffix in a unified way.

5.2.1. *-ki* with adjectives

As I have already explained, the suffix *-ki* is most often found accompanying an adjective in order to generate a modifier. Actually, this is the only context in which suffixes like *-ly* or *-mente* are also found (see Rubin (1994) for an analysis).

Thus, regarding *-ki* adverbials formed over an adjective, I will assume an analysis such as the one proposed by Rubin (1994) for Spanish *-mente* is applicable to Basque too. In this case, the adjective, generated as an argument of ModP, rises to the Mod head to join the *-ki* suffix, which is an instantiation of Mod. Of course, assuming this structure in itself implies assuming adverbial modification is carried out through adjunction in the syntax, in line with proposals such as Costa (1998, 2004). Thus, the resulting ModP adjoins the element it is modifying. The resulting structure would look like (25):

(25)



I will assume the relation of ModP with the adjoined element proceeds in the same way for all *-ki* adverbials: ModP acts as a type-shifter, and depending on the element modified, it takes a predicate to return a predicate of a predicate of the same type (e.g., in (25), it takes a predicate of type <et> and returns a predicate of type <<et>,<et>>). Note that in Basque, functional projections tend to be head-final,¹¹ so in principle, I assume that ModP is so too.

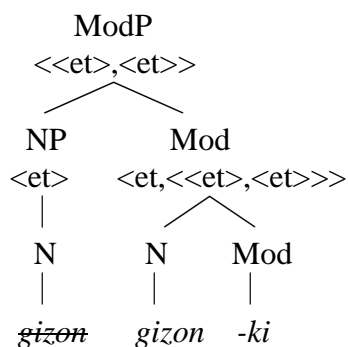
Following this pattern, words from other categories may be expected to occur as arguments of a Mod head. Indeed, such is the case in Basque, since the suffix *-ki* combines with words other than adjectives. A similar analysis, however, can be expected for these cases too.

¹¹ At least at levels below TP (with phrases such as DP, AP, QP; see Artiagoitia 2002, 2012 for a review). On the other hand, it is worth noting that some authors assume the antisymmetric hypothesis (Kayne 1994) for Basque, and thus, consider no structure is head-final (cf. Arteatx, Artiagoitia, Elordieta (eds.) 2008 for discussion on this issue). I will not follow this assumption here.

5.2.2. *-ki with nouns*

-ki may combine with nouns too, although, as acknowledged in section 3.2, apparently, these cases are few in Basque. They constitute a handful of arbitrary cases like *gizonki* ‘manly’ or *maisuki* ‘masterly’. However, nothing prevents us from proposing the same analysis of *-ki*. Here, the argument of the Mod head is a noun, which just like the adjective, moves through head-to-head movement to the Mod head, in order to check its features with it:

(26)



Although a Mod such as *-ki* is rare in combination with nouns, other suffixes are more common, such as those homophonous with the instrumental (*-z*), inessive (*-an*) or comitative (*-kin*) postposition. As I will argue in section 5.3, I believe many of the postpositions that are found in combination with nouns to form adverbials should be analysed as instantiations of Mod too, since in these cases they do not add any relational meaning, but only signal a relationship of modification.

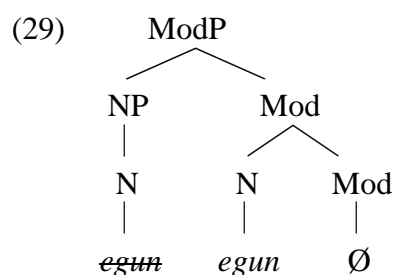
Finally, it is important to note that some nouns appear to act as adverbial modifiers without any suffix whatsoever. This is the case of *egun* ‘today (literally, day)’ or *antza* ‘apparently (literally, appearance)’. It seems to me that these words are also to be analysed under the same light as the cases above, since these words also constitute adverbials (27a). Moreover, they do not take any kind of modification themselves, as a regular NP would (27b). Thus, in Basque it is ungrammatical to say:

- (27) a. Egun, Peru pozik bizi da.
 Today Peru-ABS happy live AUX
 ‘Today, Peru lives happy(ly).’
 b. *Egun eguzkitsu hau, Peru pozik esnatu da.
 day sunny this Peru-ABS happy wake.up AUX
 Intended: ‘This sunny (to)day, Peru has woken up (feeling) happy.’

This fact distinguishes this kind of adverbial modifiers from so-called Bare-NP adjuncts, found in languages such as Spanish or English (Larson (1985) or Fábregas (2020)). In these languages, modification is indeed possible within a whole NP in adverbial function:

- (28) *Aquella mañana soleada, Pedro se despertó contento.*
 that morning sunny Peter SE wake.up happy
 ‘That sunny morning, Peter woke up early.’

Since in Basque adverbial modifiers looking like NPs cannot be modified at all, this looks as evidence that, syntactically, they constitute a structure that does not act as an NP, but rather as a modifier comparable to any adverbial formed by *-ki*. The only difference with words such as *gizonki*, therefore, is the lack of an overt *-ki* suffix. As I will show in section 5.3, the lack of an overt marker for a Mod head is usual with words from other categories too, particularly adjectives, and does not exclude the possibility that there actually is a ModP projection. Thus, the structure assumed for words like *egun* ‘today’ may look as follows:



To sum up, nouns may act as adverbial modifiers both through the suffix *-ki* in some lexicalised words, as without any overt suffix in some other lexical items.

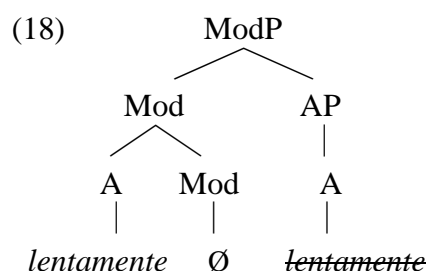
5.2.3. *-ki with PPs*

As was noted by de Rijk (1998 [1996]: 395, 2008: 237), there are many cases where *-ki* attaches to PPs. However, note that these PPs are always constructed over the instrumental postposition *-z* (e.g. *dolorezki* ‘painfully’, *egiazki* ‘truthfully, truly’). Unlike the previous ones, this case apparently poses an obstacle to my hypothesis since I argue that agreement in features between *-ki* and its argument proceeds through head-to-head movement. Contrarily, here *-ki* seems to attach to a whole phrase, which surely cannot move to a head position.

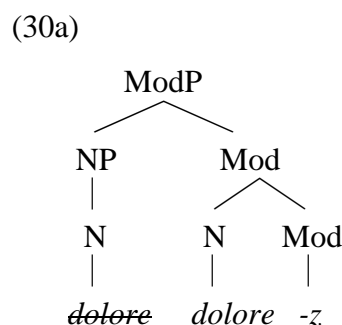
Nonetheless, it cannot be ignored that this combination is not productive but takes place only with PPs formed over the instrumental postposition *-z*, and only with some of them. There

are not, to my knowledge, cases of *-ki* adverbials formed over other postpositions such as allative *-ra* or inessive *-an* although these postpositions have eventually generated manner-adverbials too (for example, *gustura* ‘at ease’, *supituan* ‘suddenly, quickly’, but **gusturaki*, **supituanki*).

Therefore, I argue that instances of seeming instrumental PPs attached to *-ki* are actually cases where a ModP has lexicalized and has been reinterpreted as an NP, much as Italian [AP+*mente*]_{ModP} became reanalysed as an AP, repeated here for convenience (18), according to Rubin (1994: 153). This has allowed these, and only these, former ModPs to move into the Mod head to adhere to *-ki*.

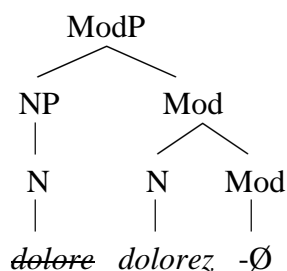


In fact, it is inevitable to think of these ModPs as reanalysed elements, since otherwise the fact that they take more adverbializing morphology would not be justified, the very same combination of NP+*-z* already being adverbial. It is only when NP+*-z* stops being interpreted as a complex phrase that it becomes in need of additional morphology to convey this semantics.

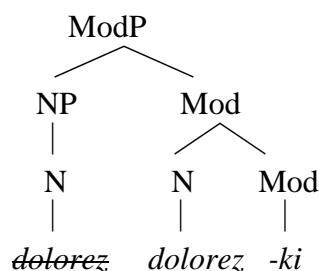


For reanalysis to take place, it is probable that there exists an intermediate stage (30b) with a silent Mod, which would be ambiguous with (30a), thus leading to a reanalysis (30c). In section 5.3, I will argue such an instantiation of Mod exists.

(30b)



(30c)



This reanalysis has taken place only with some lexical elements, precisely those where a *-ki* suffix can be found accompanied by the suffix *-z* (see Appendix 1 for some examples).

5.2.4 *-ki* with participles

Finally, some *-ki* adverbials are known to be formed over the perfect participles of some Basque verbs (de Rijk 1998[1996]). Currently, perfect participles take part of verbal constructions accompanied by an auxiliary verb (as in (30)) and are hardly found functioning as participles.

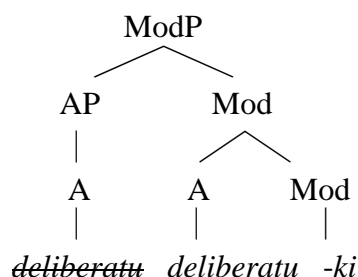
- (31) Mirenek arkatza **bila-tu** du.
 Miren.ERG pencil.DET.SG search-PF AUX.3sgERG.3sgABS
 ‘Miren has searched for the pencil.’

Nowadays, in order to act as actual participles, perfect participles usually take further suffixes such as *-a* (*benedikatua* ‘blessed’), *-ta* (*benedikatuta* ‘blessed’) or *-rik* (*benedikaturik* ‘blessed’). However, archaic uses of bare perfect participles in adjectival contexts are well documented (Euskaltzaindia 1991: 82; SEG 2011-2019) as in *Eztu benedikathu izatea behinere utzi ukhan* ‘He has never stopped being **blessed**’ (Leizarraga, *Katexima*, 4v; XVIth century).

It should be assumed, therefore, that the participle found accompanying *-ki* is indeed a participle, and as such, that the category it projects is that of the adjective, not of the verb. Indeed, adverbial modifiers formed this way date back to as far as participles used in adjectival contexts.¹² An analysis such as (32) is, therefore, in place:

¹² The very same Leizarraga is, for example, the first author known to use a participle-based adverbial such as *lehiatuki* ‘hurriedly’: *Eta ethor zitezen lehiatuki* ‘and they went with haste’ (Lc 2:16).

(32)



The semantics of these types of adverbials reinforce this view, since their meaning usually stems from the property expressed by the participle. Thus, *deliberatu-ki* ‘deliberately’ means, precisely, in a deliberate way.

Therefore, it can be concluded that cases of *-ki* attaching to a participle are, once again, cases of a ModP taking an AP as an argument. This time, the adjective is a participle and thus, the meaning it conveys is that of the property derived from accomplishing the event denoted by the underlying verb. When the participle combines with an adverbial ModP, this allows it to modify the verbal or sentential domain by adjoining it.

5.3. *-ki* is not the only instantiation of Mod°

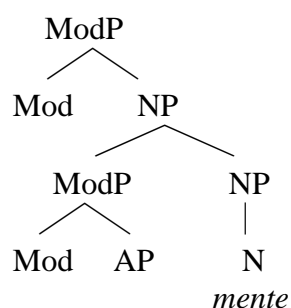
I have explained that *-ki* should be interpreted as an instantiation of the head Mod°, mainly based on the fact that it takes categories other than AP as its base. I have also argued that the categories that it takes are actually all to be interpreted as lexicalisations into APs or NPs. Nevertheless, one may think that most NPs do not form adverbials through combination with a *-ki* suffix in Basque, but through other strategies already mentioned by Villasante (1974) or de Rijk (2008), among others. The main strategy consists in combining with a seeming postposition. In this section I will argue that such postpositions, in these cases, are also instantiations of a Mod head, although homophonous with the independently existing Ps. I will also argue that another strategy, available both to APs and NPs, is combining with a zero-morpheme, that, despite not having phonological content, also projects a ModP structure. Finally, I will reinforce my argument based on a form that is usually not mentioned, since it does not correspond to current standard Basque, but that does have literary tradition: the adverbials ending in *-mentean*.

5.3.1. Postposition-like Mod: -an, -z, -kin

In this section, I will argue that elements that look like postpositions constitute instantiations of a Mod head when occurring in adverbials. In fact, in Basque, only some postposition-like elements seem to occur in adverbials. The most frequent of these are the morphemes looking like the inessive postposition *-an*, the instrumental *-z* and sometimes the commitative *-kin/-gaz*. Most probably, these instantiations of Mod have been reanalysed from previous Ps. It would certainly be interesting to carry out a diachronic study of these expressions in order to better understand the stages of this reanalysis, but this task exceeds the objectives of this dissertation. However, I cannot avoid mentioning the intuition that some of these expressions might have an origin in nominal structures of the kind of: *modu itsuan* ‘in a blind way’ > (*modu*) *itsuan* > *itsuan* ‘blindly’, where a PP modifying a noun developed into being interpreted as a ModP once the noun conveying the manner meaning (*modu* ‘way’) became elided.

It is also remarkable that this would not be the only case of reanalysis resulting in a ModP. Rubin (1994) poses a hypothesis of how latin *mens* in its ablative form *mente* came to be interpreted as the lexical instantiation of the Mod head (32). According to him, the noun *mente* was at first an element modified by an adjective as well as the argument of a higher ModP. In time, this structure came to be reanalysed as a sole ModP structure, where *mente* was the instantiation of Mod and the AP was just the argument of ModP.

(33) based on Rubin 1994: 153, ex. 14:



Likewise, a reinterpretation of postpositions as Mod heads can be envisaged, where a PP is first interpreted as the argument of a ModP with a silent Mod, and later, the postposition is reanalysed as an instantiation of Mod, leaving the former argument of P as an argument of Mod.

Independently of the diachronic derivation of these forms, it seems that a synchronic analysis by which these postposition-looking forms constitute ModPs is consistent with a vision by which a PP (just like an AP) in a verbal domain would correspond, most of the times, to a modifying expression.

In fact, this intuition was already mentioned in Euskaltzaindia (1991: 238-294). In its description of the uses of each postposition, it is explained that there is a manner use to all inessive, instrumental and comitative suffixes, although not much attention is paid to it. For the inessive, it is remarked, sometimes its interpretation is almost literal (34a), other times it has received an idiomatic interpretation (34b), while in other cases, these expressions may be taken as *adverbs* (34c), presumably because they are pronounced as one word and take a unitary meaning (34c):

- (34) a. Patxada-n egin zuen lana.
 calm-INES do AUX work
 ‘He worked calmly.’ (Euskaltzaindia 1991: 246, ex. 106b)
- b. Herio-an aldegin du.
 death-INES get.away AUX
 ‘S/he got away in a rush (lit. in death).’ (Euskaltzaindia 1991: 246, ex. 107a)
- c. Ustekabe-an aldegin du.
 surprise-INES get.away AUX
 ‘She got away unexpectedly.’

De Rijk (2008) already noted that although the core meaning of the instrumental postposition *-z* in Basque may be close to ‘means’ and ‘cause’, it also serves «as a default case to be employed when no other case is appropriate» (2008: 737). He also signals that in spoken language, particularly in southern varieties, the instrumental is used rather as a derivational suffix «turning some nouns into adverbs» (2008: 738). In fact, he later adds that many instrumental PPs can serve as manner adverbs (*arduraz* ‘carefully’, *nekez* ‘with difficulty’, *zentzuz* ‘sensibly’).

All of these remarks readily coincide with an analysis where the suffixes *-z* or *-an* are not actually acting as postpositions, but rather as markers for modification. This, of course, does not mean that in all other cases these suffixes correspond to a Mod head. Often the meaning of PP constructions can be interpreted compositionally (as in *etxe-an* ‘in (the) house, at home’ or *makila-z* ‘with a stick’); in those cases, there is no reason to think that we are not facing a PP.

Other cases appear to be ambiguous as to their interpretation, but the fact that the suffix attaches to a whole phrase signals that it is a postposition: *plazer handi-z* ‘with great pleasure’ (35a). Nonetheless, when the meaning of some of these expressions becomes conventionalised, whole phrases may become heads and, thus, the PP becomes a ModP, as in the case of *aho batez* ‘unanimously’ (35b):

- (35) a. *plazer handi-z*
 pleasure big-INS
 ‘with great pleasure’
- b. *aho bat-ez*
 mouth one-MOD
 ‘unanimously’ (lit. through one mouth)

As I have hinted above, the reason why this reinterpretation and reanalysis is possible, in my view, is that modifying PPs are themselves integrated within a ModP with a silent Mod head. Precisely, the cases regarding zero-morpheme Mod will be the topic of the next subsection (§5.3.2).

5.3.2. Zero morpheme Mod and the case of bare-adjective adverbials

In previous sections, I have already hinted at some cases where the Mod head may not have a phonetic realization. These cases are, on the one hand, NPs that act as adverbials and which allow no modification (e.g. *egun* ‘today’) (§5.2.2). On the other hand, I have signaled that in order for a postposition to be reinterpreted as a Mod head, it is probable that there is an intermediate stage where the PP is embedded within a ModP with a silent Mod (§5.2.3). Here I will develop two cases that offer further evidence to believe that there exist cases of ModPs with a zero-morpheme Mod head: i) that of adjectives that serve as adverbials in Basque and ii) that of PPs that have become ModPs in time.

As has been developed before (§3.2), a very common strategy to generate adverbial modifiers in Basque consists of using bare adjectives in the verbal or sentential domain without any additional suffix. These adjectives are interpreted as adverbials, as in (36):

- (36) *Udaletxeak azkar erantzun dio egoerari.*
 city.council.DET.SG.ERG fast respond AUX situation.DET.SG.DAT
 ‘The city council has rapidly responded to the situation.’

In Basque, this kind of adverbs are very frequent, as pointed out by de Rijk (2008: 237-239). In Fernández Altonaga (2021) I tried to extend the analysis provided for *-ki* adverbials to this type of adverbials, while distinguishing them from secondary predicate adjectives. Based on Fábregas & Alexeyenko (2016) and Agirre (2017) I argued that despite secondary predicates and bare-adjective adverbials being homophonous structures, they are internally composed in different ways. As noted by these authors, in languages like Spanish, where adjectives agree in gender and number, it becomes evident that in the case of secondary predicates, adjectives agree with the argument they modify (37a), while in the case of manner-adverbials they do not (37b):

- (37) a. María cortó la cebolla **fina**.
 María cut DET.F onion thin.F
 ‘María cut the onion thin.’
- b. María cortó la cebolla **rápido/*rápida**.
 María cut DET.F onion fast /*fast.F
 ‘María cut the onion quick(ly).’

In Basque, although agreement phenomena tend to be less clear, the semantic distinction is apparent between those adjectives that modify the event and those that modify an argument. Sometimes though, sentences may be ambiguous as to the interpretation of the modifying adjective:

- (38) Peru **alai** sartu zen klasera.
 Peru happy enter AUX class.DET.ALL
 Interpretation 1: ‘Peru was happy when he entered the class.’
 Interpretation 2: ‘Peru entered the class in a happy manner.’

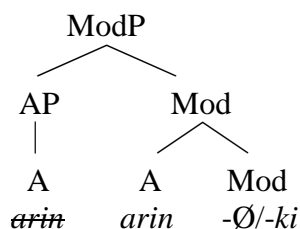
This ambiguity is vanished when the adjective takes a suffix such as *-ki*, signaling its status as a manner modifier:

- (39) Peru **alai-ki** sartu zen klasera
 Peru happy-ki enter AUX class.DET.ALL
 Interpretation 1: #Peru was happy when he entered the class.
 Interpretation 2: Peru entered the class in a happy manner.

Therefore, it should be concluded that each interpretation corresponds to a different syntactic construction, and that the interpretation where the adjective expresses a manner meaning (i.e. modifies the event) has the same structure for adjectives carrying the suffix *-ki* or as for adverbial adjectives with no suffix at all. In fact, this requires assuming that adjectives with a

manner interpretation are also ModPs,¹³ where the Mod head is empty, although a *-ki* suffix may optionally appear.

(40)



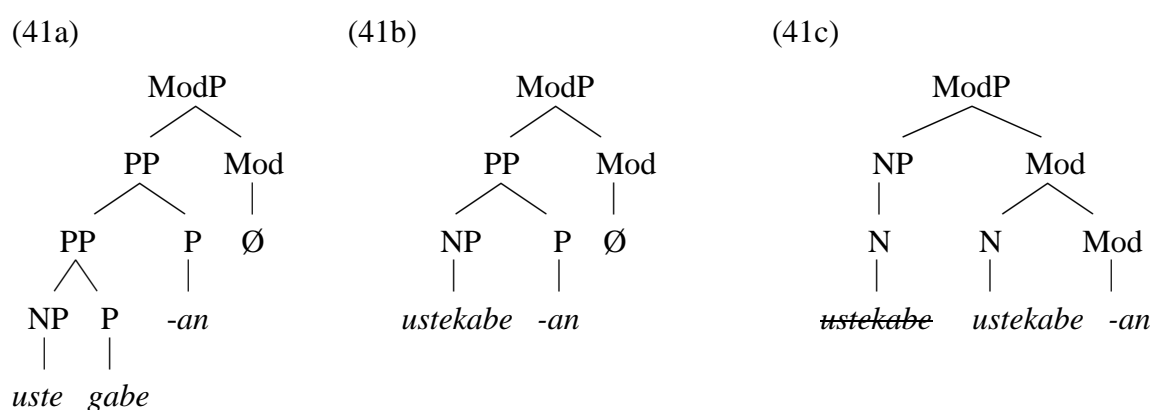
In summary, two homophonous structures may be found behind a *bare adjective* acting as a modifier: i) one with a manner-reading (an adverbial) and ii) the secondary predicate reading. Secondary predicates agree with the argument they are predicated of, while adverbial adjectives are predicated of the event. I have argued that bare adjectives with a manner reading are totally comparable to *-ki* adverbials in Basque, and thus share the same structure, their only difference being that the former lack an overt marker for Mod. However, they are interpreted in the same way and share the same distribution. In fact, it is generally a dialectal choice whether to mark the adverbial overtly or not, since as de Rijk (2008: 237) signals, the *-ki* suffix is more often found in northern varieties, whereas southern ones tend to use more bare-adjectives.

This case proves that a silent Mod head must be assumed for some structures if a unified analysis is to be provided for all modifiers. This leads me to the conclusion that indeed, other structures that have not been previously identified as adverbs (but that constitute adverbials) are also to be interpreted as ModPs with a silent Mod head.

This assumption would help explain why PPs that act as modifiers may end up, in time, being reanalysed not as a postposition but as a simple marker of modification. Remember, however, that every time that this reanalysis happens, the argument of Mod must be interpreted as a single head, so that head-to-head movement takes place.

¹³ Strictly speaking, what should be interpreted is that adjectives with a manner reading take *the same type of Mod* as *-ki* adverbials. If we are to follow Rubin (1994), it must be the case that adjectives in general take a ModP layer, so long as they act as modifiers. However, the features of Mod in each case should be different, thus allowing each element to modify different types of constituents.

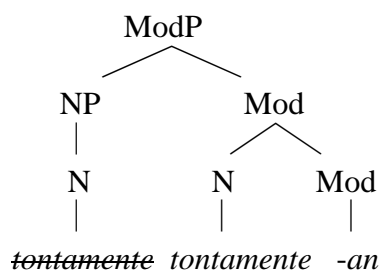
In (41), for instance, I envisage the diachronic stages of the adverbial expression *ustekabean* ‘suddenly’. This word was once internally composed of the noun *uste* ‘expectation’, the lexical postposition (or axial part) *gabe* ‘without’ and the inessive postposition *-an*. At first, this construction would be interpreted compositionally as in (41a). However, *ustekabe* has come to constitute a single word meaning ‘accident’. This probably enhanced a new interpretation formalized as (41b). Finally, the postposition is devoid of its semantics, only to be interpreted as a modificational marker (41c). *Ustekabean*, with a meaning close to ‘by accident’ came at some point simply to mean ‘suddenly’ rather than ‘unexpectedly’ (although it can still mean ‘unexpectedly’):



Thus, this word has come to have a non-compositional, conventional meaning; that is, it has become what is traditionally perceived as an adverb. Through this analysis, however, a functional projection covers all which semantically fills the same function (that of modification) while also explaining phenomena of lexicalisation through changes in its internal structure.

Another situation in which it becomes clear that the inessive postposition *-an* has become a marker of modification is in the case of adverbials ended *-mentean*. These words are non-standard but known in everyday spoken Basque (particularly in the southern varieties). Although written corpora tend not to record this use, the Goenkale corpus, based on the scripts from a famous TV show, witnesses the use of words such as *tontamentean* ‘stupidly’, *solamentean* ‘solely, just’ or *dexentementean* ‘enough, quite’. Clearly, all of these are cases of Spanish borrowings of *-mente* adverbials (*tontamente*, *solamente*, *decentemente*, although in the latter the meaning in Basque has evolved). However, it seems that for the speakers using these forms, Spanish *-mente* is no longer the instantiation of Mod, therefore, they mark again the word with another instantiation of Mod.

(42)



Clearly, in these cases *-an* does not have any inessive value, but rather, it reinforces the function already carried by *-mente* in the borrowed language. For this reinterpretation to take place, again, it becomes indispensable to assume that for these speakers, borrowed *-mente* adverbials are instances of zero-morphemed ModPs, for they do not use *-mente* words as nouns but they can add an 48peciali-looking suffix to them. The reinterpretation, therefore, would take place as follows:

(43) a. Spanish borrowed structure:

[[*tonta*]_{AdjP}-*mente*]_{ModP}

b. Lexicalisation and reanalysis:

[[*tontamente*]_{NP-∅}]_{ModP}

c. Innovative Mod structure:

[[*tontamente*]_{NP-an}]_{ModP}

Thus, I have tried to show that positing a Mod head with no phonological 48pecialized allows to explain different phenomena regarding the behaviour of words from various categories, which in certain contexts, can act as modifiers. These words have often been perceived as adverbs, but I defend that there is no need to posit a separate lexical category, since these words are in no way different to other adverbial structures (PPs, CPs) regarding their syntactic behaviour. Instead, a functional category encompassing all of them seems to be in place, so long as they constitute the same syntactic object.

Furthermore, the conceptualization of adverbial words as complex structures composed of a lexical and a functional structure enables a better understanding of lexicalization phenomena. As I have tried to argue throughout this work, it is only these phenomena of 48pecialized48on that distinguish what have been identified as adverbs from other structures such as PPs or APs. Giving all of them the same functional structure also helps understand their

diachrony and avoids the confusion that stems from establishing different terms for items with the same function along a scale of lexicalisation.

6. Conclusion: What is an adverb?

Throughout this work I have aimed at a better understanding of the morphosyntactic structures that lie under the cover-term *adverb*, particularly in the case of Basque. With this in mind, I have first tried to signal the main difficulties in the description of adverbs across various descriptive grammars and 49 specialized works. I have also brought forth the proposal, held by some authors (Emonds 1987, Baker 2003), that adverbs may not actually constitute a coherent class, but that they belong to different grammatical categories, the only thing in common being that they serve the same semantic function; i.e., they modify non-nominal elements.

Along these lines, I have analysed various types of words that have traditionally been considered adverbs in Basque. Following Rubin's (1994) proposal for a unified analysis of all modifiers as different instantiations of the same functional head (ModP), I have also tried to offer a unified analysis for all the types of adverbials addressed. If my hypothesis is right, these adverbs do not constitute a separate grammatical category, but instead they are nouns and adjectives that can act as non-verbal modifiers when they take on the corresponding functional projection, ModP. The different elements that have been identified as adverbializers in Basque (morphemes such as *-ki* or postposition-like elements such as *-an*, *-z*, *-kin*) are argued to be instantiations of the Mod head.

This proposal allows to offer a more perspicuous and coherent analysis of adverbials. This proposal intends to be consequent with current theories regarding modification in the domain of formal semantics. In that sense, Rubin's (1994) proposal has the virtue of simplifying the semantic apparatus at the expense of complicating the syntactic structure only to a certain degree.

Obviously, this proposal also leaves some questions open which deserve further inquiry. In section 4.2.3., I have sketched the theoretical implications of assigning the same ModP structure to all types of modificational relationships. As mentioned in the introduction, the fact that adverbials modify different types of semantic and syntactic objects (such as adjectives, VPs or CPs) is a challenging fact that requires a well-developed theory regarding the semantics of

all the elements involved. I have argued that the particularities regarding the formal features and semantic type of each of the constituents modified would have to be translated into different types of Mod heads. Therefore, a proper description of each of the possible Mod heads is yet to be done.

However, I do believe this framework helps to better conceptualise the modificational relationships entertained by adverbials. Furthermore, the conception of adverbs as words from better defined categories with a functional layer allows to disentangle the issue of the exact definition of this supposed category. This makes it possible for a single type of syntactic object to take different semantic functions depending on the constituent it modifies, and different forms depending on the underlying category.

Additionally, a more clearly defined inner-structure for adverbial words enables a better understanding of the diachronic processes leading to the lexicalisation of other constituents into single-word adverbials. What have traditionally been recognised as adverbs are often no more than the product of processes of phonological reduction and conventionalisation of meaning, and in my view, these changes accompany (and enable) the reanalysis of the internal structure of a ModP.

In sum, a new definition of the adverb emerges from this framework. According to my hypothesis, adverbs are not a basic category of the grammar, but rather a type of ModP syntactically, a modifier of the verbal or sentential domain semantically and often the product of a lexicalisation in historical terms. Therefore, concerning their morphosyntactic nature, these modifiers are in no way different from more complex adverbial modifiers such as PPs or CPs.

This dissertation is to be taken as a first step towards the clarification of the theoretical issues regarding the definition and concrete characterization of adverbial modifiers. At the same time, I have tried to contribute to the description of some types of words that have received little attention in Basque grammars until now. In the future, more research should be carried out in order to better define the exact characteristics of ModPs, and to integrate into this analysis other lexical items that have also been recognised as adverbs, such as adverbials formed by the suffix *-ka* (e.g. *lasterka* ‘running, in a rush’), or adverbials looking like quantifiers (e.g. *asko* ‘much, a lot’).

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Appendix 1. A brief corpus of words formed by suffixes *-ki*, *-ro*, *-to*, *-roki*, *-kiro*, *-toro* and *-tsa* in Basque.

What follows is a list of words formed with the suffixes *-ki*, *-ro*, *-to*, *-roki*, *-kiro*, *-toro* and *-tsa*, which are considered adverbializers in Basque. Clearly, only *-ki* is fully productive nowadays, and for that reason, the list of words thus formed is quite extensive. I have certainly not included all the words accepted by the Basque Academy's dictionary (Euskaltzaindia 2022), but all the words presented here are accepted by the Academy as standard Basque. Many more words created with all of these suffixes can be found in nowadays spoken Basque, as well as in written Basque from all periods (see de Rijk 1996 [1998] for a review).

Words that have been analysed throughout this dissertation are presented in bold and accompanied by the page number.

-ki

abilki 'skillfully'

absolutuki 'wholly, absolutely'

adeitsuki 'kindly'

adiskideki 'in a friendly way, amicably'

ahalkegabeki 'rudely, insolently'

ahulki 'weakly'

airoski 'merrily, cheerfully'

aiseki 'easily'

aktiboki 'actively'

alaiki 'merrily, cheerfully' (45)

alegeraki 'merrily, cheerfully'

alfabetikoki 'alphabetically'

alferki 'fruitlessly, lazily'

amoltsuki 'amiably, lovingly'

anaiki 'brotherly, fraternally' (22)

ankerki 'cruelly'

antsikabeki 'unattentively'

apainki 'elegantly'

apalki 'humbly' (22)

argiki 'clearly'

arinki 'lightly' (45)

arraroki 'rarely, seldom'

artatsuki 'attentively'

artezki 'rightly, skilfully' (22)

artifizialki 'artificially'

artoski 'attentively'

ausarki 'daringly, boldly, abundantly'

automatikoki 'automatically'

axolagabeki 'unattentively'

azkarki 'firmly'

baiki 'surely'

baikorki 'optimistically'

bakoizki 'lonely, with no company'

baldanki 'rudely, roughly'

baldarki 'clumsily'

banoki 'feebly'

begiratuki 'attentively'

benazki 'truly'

bereziki 'specially' (20)

<i>beroki</i> ‘warmly’	<i>ergelki</i> ‘foolishly, stupidly’
<i>berriki</i> ‘lately, recently’	<i>erlatiboki</i> ‘relatively’
<i>bertikalki</i> ‘vertically’	<i>eroki</i> ‘insanely, crazily’
<i>bidegabeki</i> ‘unjustly’	<i>errazki</i> ‘easily’
<i>bidezki</i> ‘rightly, legitimately’	<i>errealiki</i> ‘really, truthfully’
<i>bihurriki</i> ‘windingly, naughtily’	<i>erregulariki</i> ‘regularly’
<i>bipilki</i> ‘bravely’	<i>eskematikoki</i> ‘schematically’
<i>birtualki</i> ‘virtually’	<i>esklusiboki</i> ‘exclusively’
<i>bisualki</i> ‘visually’	<i>eskuarki</i> ‘generally, mostly’
biziki ‘very’ (20)	<i>eskuzabalki</i> ‘lavishly’
<i>bizkorki</i> ‘quickly, abundantly’	<i>esperimentalki</i> ‘experimentally’
<i>bortizki</i> ‘firmly, forcibly, harshly’	<i>espezialki</i> ‘particularly, specially’
<i>boteretsuki</i> ‘strongly’	<i>espiritualki</i> ‘spiritually’
<i>bulartsuki</i> ‘bravely’	<i>espresuki</i> ‘explicitly, on purpose’
<i>burugabeki</i> ‘senselessly’	<i>estuki</i> ‘narrowly, closely’
<i>deblauki</i> ‘definitely, without doubt’	<i>etengabeki</i> ‘non stop’
deliberatuki ‘deliberately’ (3, 22, 40)	<i>ezaxolaki</i> ‘inattentively, nonchalantly’
<i>demokratikoki</i> ‘democratically’	<i>ezaxolatuki</i> ‘inattentively, nonchalantly’
<i>dignoki</i> ‘decently, honourably’	<i>eztiki</i> ‘sweetly’
<i>dohakabeki</i> ‘unfortunately’	<i>faltsuki</i> ‘falsely’
<i>dohatsuki</i> ‘happily, blessed’	<i>fermuki</i> ‘firmly’
<i>doiki</i> ‘justly, neatly’	<i>fidelki</i> ‘loyally’
<i>doilorki</i> ‘meanly, villainously’	<i>fierki</i> ‘firmly’
dolorezki ‘painfully, anxiously’ (3, 22, 38, 39)	<i>fisikoki</i> ‘physically’
<i>doloroski</i> ‘painfully’	<i>formalki</i> ‘formally’
<i>dorpeki</i> ‘heavily, harshly’	<i>frankoki</i> ‘abundantly’
<i>ederki</i> ‘beautifully, nicely, very well’	<i>funsgabeki</i> ‘unfoundedly’
egiazki ‘truthfully, trully, really’ (22, 38)	<i>gaizki</i> ‘badly’
<i>ekonomikoki</i> ‘economically’	<i>gaiztoki</i> ‘wickedly, viciously’
<i>emeki</i> ‘gently, patiently, slowly’	<i>galaiki</i> ‘gallantly’
<i>epelki</i> ‘half-heartedly’	<i>garbiki</i> ‘clearly, neatly’
<i>eragabeki</i> ‘exaggeratedly’	<i>garrazki</i> ‘sourly’
	<i>gaziki</i> ‘saltily’

<i>geldoki</i> ‘weakly, slowly’	<i>itsuski</i> ‘grossly, crudely, terribly’
<i>girstinoki</i> ‘in a christian manner’	<i>itsutuki</i> ‘blindly’
gizonki ‘humanly, manly, bravely’ (3, 22, 37, 38)	<i>itxuragabeki</i> ‘exaggerately’
<i>gogoetagarriki</i> ‘worryingly’	<i>izendatuki</i> ‘specifically’
<i>gogorki</i> ‘strongly’	<i>jarraituki</i> ‘continuously’
<i>goraki</i> ‘loudly, out loud’	<i>jatorki</i> ‘genuinely’ ‘nobly’
<i>goriki</i> ‘fervently’	<i>joriki</i> ‘abundantly’
<i>gozoki</i> ‘sweetly, smoothly’	<i>juridikoki</i> ‘juridically’
<i>gradualki</i> ‘gradually’	<i>justuki</i> ‘justly, lawfully’
<i>grafikoki</i> ‘graphically’	<i>kartsuki</i> ‘ardently, vehemently’
<i>grinatsuki</i> ‘fervently, attentively’	<i>kexatuki</i> ‘vehemently, hurriedly’
<i>guriki</i> ‘tenderly’	<i>kimikoki</i> ‘chemically’
<i>handizki</i> ‘greatly, especially’	<i>klarki</i> ‘clearly’
<i>harrigarriki</i> ‘surprisingly, impressively’	<i>kolektiboki</i> ‘collectively’
<i>harroki</i> ‘proudly, arrogantly’	<i>komunzki</i> ‘commonly, generally’
<i>hedatuki</i> ‘extensively’	<i>konkretuki</i> ‘concretely’
<i>herabeki</i> ‘timidly’	<i>konplituki</i> ‘wholly, completely’
<i>hertsatuki</i> ‘insistently’	<i>kontzienteki</i> ‘consciously, knowingly’
<i>hertsiki</i> ‘tightly, insistently, specifically’	<i>kristauki</i> ‘christianly’
<i>hobeki</i> ‘better’	<i>kronologikoki</i> ‘chronologically’
<i>horizontalki</i> ‘horizontally’	<i>kurioski</i> ‘curiously, with curiosity’
<i>hozki</i> ‘coldly, coolly’	<i>laburki</i> ‘briefly’
<i>iaioki</i> ‘skilfully’	<i>laburzki</i> ‘briefly’
<i>idealki</i> ‘ideally’	<i>lañoki</i> ‘mistily’
<i>idorki</i> ‘rudely, roughly’	<i>largoki</i> ‘clearly, generously’
<i>ikaragarriki</i> ‘enormously, terribly’	<i>larriki</i> ‘gravely, urgently’ ‘with no detail’
<i>infinituki</i> ‘infinitely’	<i>lasaiki</i> ‘calmly’
<i>inkontzienteki</i> ‘unconsciously’	<i>lazgarriki</i> ‘terribly’
<i>iraunkorki</i> ‘permanently, lastingly’	<i>lazki</i> ‘harshly, rudely’
<i>irmoki</i> ‘firmly’	lehiatuki ‘hurriedly’ (40)
<i>isilki</i> ‘silently, secretly’	<i>leialki</i> ‘loyally’
itsuki ‘blindly’ (22)	<i>liberalki</i> ‘generously’
	<i>libreki</i> ‘freely’

likiski 'dirtyly, lustily'
limurki 'lovingly'
linealki 'lineally'
literalki 'literally'
lizunki 'lewdly'
lotsagabeki 'shamelessly, brazenly'
luzazki 'for a long time'
luzeki 'for long'
maisuki 'masterly' (22, 37)
maitagarriki 'lovingly'
maiteki 'lovingly' (21)
makurki 'badly, wrongly'
maluruski 'unfortunately, sadly'
mantsoki 'slowly, gently'
mardulki 'heftily, abundantly'
markatuki 'emphatically, markedly'
matematikoki 'mathematically'
materialki 'materially'
mehatxuzki 'threateningly'
mekanikoki 'mechanically'
miragarriki 'miraculously'
modalakizki 'clumsily'
moralki 'morally'
motelki 'slowly'
nabariki 'notably, patently'
nabarmenki 'patently, ostentatiously'
nagiki 'lazily'
nagusiki 'mainly'
nahasiki 'confusedly'
naroki 'abundantly'
narraski 'shabbily'
nasaiki 'abundantly'
naturalki 'naturally, spontaneously'

negargarriki 'regrettably'
neurrigabeki 'excessively'
normalki 'normally'
objektiboki 'objectively'
ofizialki 'officially'
ohargarriki 'ostensibly'
ohartuki 'consciously'
ohiki 'generally, mostly'
ohoragarriki 'honorably'
ohorezki 'honorably, nobly'
okerki 'badly, wrongly'
oneski 'righteously, earnestly'
ongi 'well'
oroituki 'rememberingly'
orokorki 'generally'
osoki 'wholly, completely' (20)
ospetsuki 'famously'
paregabeki 'uncomparably'
partikularki 'particularly'
partzialki 'partially'
pausatuki 'slowly'
pertsonalki 'personally'
pobreki 'poorly'
poliki 'prettily, nicely, slowly'
politikoki 'politically'
preseski 'precisely'
prestuki 'honorably, nobly'
proporzionalaki 'proportionally'
publikoki 'publicly'
sainduki 'saintly'
saminki 'bitterly'
samurki 'tenderly'
santuki 'saintly'

sarkorki ‘sharply, piercingly’
segurki ‘surely’
sendoki ‘firmly, strongly’
serioski ‘earnestly, seriously’
sinpleki ‘simply’
soilki ‘merely, only’
sotilki ‘beautifully’ ‘treacherously’
suharki ‘fervently’
supituki ‘suddenly’
sutsuki ‘fervently, ardently’ (35, 36)
teknikoki ‘technically’
teorikoki ‘theoretically’
tolesgabeki ‘strictly, undoubtedly’
tradizionalki ‘traditionally’
trakeski ‘clumsily’
trebeki ‘skilfully’
txarki ‘badly’
ugariki ‘abundantly’
umilki ‘humbly’
umoki ‘maturely’
uroski ‘happily, blessedly’
usuki ‘frequently’
uzkurki ‘timidly, reluctantly’
xaloki ‘amiably’
xeheki ‘minutely, in detail’
zabalki ‘openly’
zabarki ‘lazily, idly’
zailki ‘difficultly’
zakarki ‘rudely, roughly’
zaluki ‘quickly, agilely’
zarpailki ‘rudely’ ‘in rags’
zatarki ‘uglily’
zehazki ‘concretely’ (3)

zentzugabeki ‘absurdly, unconsciously’
zentzuzki ‘judiciously, prudently’
zikoizki ‘meanly’
zilegiki ‘legitimately’
zitalki ‘nastily, vilely, meanly’
ziurki ‘surely, undoubtedly’
zoragarriki ‘marvelously’
zoroki ‘crazily’
zozoki ‘stupidly, idly’
zuhurki ‘sensibly, carefully’
zuzenki ‘directly’

-ro

argiro ‘clearly’
astiro ‘leisurely, slowly’
berriro ‘again, newly, recently’
biziro ‘lively, keenly, intensely, highly’
dongaro ‘meanly’
egokiro ‘suitably, properly’
emaro ‘gently, patiently, slowly’ (20)
eztiro ‘sweetly, softly’
garbiro ‘clearly, frankly’
geldiro ‘quietly, slowly’
gozoro ‘sweetly, pleasantly’
guztiro ‘totally, in all’
handiro ‘on a grand scale, greatly’
luzaro ‘at length, for a long time’ (20)
maitaro ‘lovingly’
nagiro ‘lazily’
naroro ‘abundantly, lavishly’
oparo ‘abundantly’ (20)
osoro ‘wholly, completely’
sendoro ‘firmly, solidly’
zeharo ‘minutely, precisely, totally’

zintzoro ‘dutifully, honestly’

-to

ederto ‘nicely’

hobeto ‘better’

galanto ‘galantly, smartly’

ondo ‘well’ (20)

polito ‘handsomely’

txarto ‘badly’ (20)

zantarto / **zatarro** ‘hideously’ (20)

-roki

argiroki ‘lucidly’

astiroki ‘unhurriedly’

berriroki ‘anew’

biziroki ‘keenly’

handiroki ‘greatly’

maitaroki ‘lovingly’

osoroki ‘fully, completely’

xeheroki ‘in detail’

-kiro

aitakiro ‘fatherly’

alaikiro ‘merrily’

anaikiro ‘brotherly, fraternally’

apalkiro ‘humbly’

ausarkiro ‘bravely’

bigunkiro ‘mildly, softly’

bilaukiro ‘meanly’

desegokiro ‘inappropriately’

egokiro ‘correctly, appropriately’

emekiro ‘softly’ (20)

handikiro ‘grandiously’ (20)

laburkiro ‘briefly’ (20)

lagunkiro ‘amiably’

laztankiro ‘lovingly, tenderly’

leunkiro ‘softly’

lizunkiro ‘lustily’

maisukiro ‘masterly’

nagusikiro ‘masterly’

pozkiro ‘happily’

txukunkiro ‘orderly’

zehazkiro ‘exactly’

zorrozkiro ‘rigorously’

-toro

osotoro ‘completely’ (20)

-tsa

untsa ‘well’ (20)