

Attribution in Basque, Finnish, Hungarian and Turkish: Morphology vs. Syntax

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1. Introduction

In this paper we address the question of what is needed, in terms of morphosyntactic encoding, to relate a so-called verb-specific modifier to a nominal head. For the purposes of this paper we shall assume that the notion of a verb-specific modifier includes adverbs and their phrasal or clausal projections, adpositional phrases, and noun phrases featuring a particular semantic case such as locative or instrumental. Noun-specific modifiers, in turn, are considered to be first and foremost adjectives and adjective phrases, next participles and their phrasal projections and, finally, relative clauses.¹ The basic motivation underlying this distinction relates to markedness. As pointed out by Croft (1991: Chap. 2) and Hengeveld (1992: 37) it can be cross-linguistically observed that when, say, a verb-specific modifier is used to modify a nominal head or when a noun-specific modifier is used to modify a verbal head it must in some way be changed – usually in terms of morphosyntax – before it could be used in the respective marked case.

In the simplest kind of case, however, no such marker will be necessary. Thus, for instance, in English or German we may use adverbs as adnominal modifiers by simply juxtaposing them to their nominal head, cf. ENG *the talk yesterday*, GER *der Vortrag gestern*. A second strategy consists in embedding a verb-specific modifier within a noun-specific modifier, viz. either a participial phrase or a relative clause, cf. ENG *the talk given yesterday*, *the talk that was given yesterday*. As long as the language avails itself of participial phrases or adnominal relative clauses, this option exists. Therefore it might not appear to qualify as a true strategy of its own. However, at least with respect to participial phrases it becomes less trivial when considering languages where the participle to be used may be an auxiliary (or some other grammaticalized verb) as in, e.g., Hungarian

¹ Whether or not there are additional categories for each type of modifier won't matter for the purposes of this paper.

and Turkish. Note that the possibility of using auxiliaries as heads of participial phrases is subject to language-specific constraints, being more or less prohibited in German, and it can be considered to establish a more grammaticalized, formal strategy to link verb-specific modifiers to nominal heads. In the third strategy, then, it is merely a formal marker, henceforth called ‘relational marker (RM)’, that attaches to the verb-specific modifier within an attributive construction. Such RMs come in various shapes and with different semantic effects: Formally, they may be words (*der Vortrag von gestern* ‘yesterday’s talk’), clitics (*yesterday’s talk*) or (derivational) affixes (*der gestrige Vortrag* ‘yesterday’s talk’).² Semantically, they may preserve or change the semantic type of the modifier, being either instances of what is called ‘function-indicating’ or ‘type-changing’ morphosyntax in Croft (1991: 69). The central question we want to pursue in this paper is whether or not the degree of bondedness between a RM and the expression it relates to the head correlates with the semantic type of the modifier it creates.

In what follows we investigate four languages, i.e. Basque, Turkish, Hungarian and Finnish, where RMs figure prominently within the syntax of attribution. Section 2 explores the range of phrasal categories a RM of the respective language may attach to. Section 3 deals with the syntactic scope of each RM, i.e. whether it is to be analyzed as a clitic or as an affix. Finally, in section 4 we examine the range of semantic relations an attribute introduced by a RM (henceforth RM-attribute) may enter and enquire the semantic type of the RM-attributes. The paper closes with a brief conclusion.

2. Relational marking in the languages under investigation

Basque Basque possesses slots for both postnominal and prenominal modifiers. Adjectives as a rule follow the noun they modify, though a few must precede it (cf. Trask 2003: 138). Clausal modifiers also occur in postnominal position, while all other types of modifier are restricted to the prenominal position, among them possessive attributes and participial phrases, though this type of construction is said to be limited to eastern varieties of Basque (cf. Trask 2003: 142). Categories such as NPs (marked for semantic case, cf. (1)), PPs (cf. (2)), AdvPs (cf. (3)) and adverbial participles (cf. (4)) have to be linked by the RM *-ko* in order to function as adnominal modifiers. To a limited degree *-ko* also attaches to finite clauses (cf. (5)).

² We are not aware of RMs that are encoded non-segmentally, though those might well exist.

Basque

- (1) mendietako haizuloak
 mountains.LOC-RM the caves
 ‘the caves in the mountains’ (Trask 2003: 145)
- (2) bakearen aldeko amak
 peace-GEN for-RM mothers
 ‘mothers for peace’ (de Rijk 1993: 148)
- (3) atzo-ko egunkaria
 yesterday-RM the newspaper
 ‘yesterday’s newspaper’ (Trask 2003: 145)
- (4) atzo nik erosita-ko liburua
 yesterday I.ERG buy.PRT-RM the book
 ‘the book I bought yesterday’ (Trask 2003: 146)
- (5) hil dutela-ko kontua
 kill AUX.that-RM the report
 ‘the report that he has been killed’ (Trask 2003: 147)

Turkish Except for finite relative clauses introduced by the subordinator *ki* – not to be confused with the RM *-ki* –, adnominal modifiers precede the head noun within the Turkish NP. These include adjectives, bare nouns, participial phrases, genitive- and ablative-marked NPs³ and PPs headed by the postposition *gibi* (‘like’; cf. Boeder & Schroeder 2000). In addition, there are RM-attributes, formed by means of the RM *-ki* on the basis of NPs (cf. (6)), PPs (cf. (7)) and AdvPs (cf. (8)).⁴ Note that those NPs and PPs must be marked for locative case (case suffix *-da/-de*), which means that *-ki* can only attach to ‘possessive-marked postpositions’ as in (7). This type of postposition traces back to nouns, having the form noun stem + possessive marker + case marker and forming a possessive construction with their complement (cf. Göksel & Kerslake 2005: 240ff.). They include the central postpositions which express spatial relations. Consequently, PPs with ‘bare postpositions’ as well as PPs headed by ‘possessive-marked postpositions’ that are marked for a case other than locative are barred from forming RM-attributes.

Turkish

- (6) bahçede-ki ağaçlar
 garden.LOC-RM trees
 ‘the trees in the garden’ (Göksel & Kerslake 2005: 196)
- (7) Harunla aramızda-ki gerginlik
 Harun.CONJ space.POSS1PL.LOC-RM tension
 ‘the tension between Harun and me/us’ (Göksel & Kerslake 2005: 259)

³ Those prenominal ablative-marked NPs exclusively denote partitive relations (cf. Boeder & Schroeder 2000: 166).

⁴ AdvPs like the one in (8) are sometimes described as PPs (cf. Göksel & Kerslake 2005: 259), since the adverb occurs with an optional complement.

- (8) geri dönüşlerinden sonra-ki ilk yıl
 back return.POSS3PL.ABL after-RM first year
 ‘the first year after their return’ (Schroeder 2000: 205)

Hungarian The pictures provided by Hungarian and Finnish are not as clear-cut as in Turkish. Juxtaposing AdvPs, PPs or NPs marked for semantic case in post-nominal position is not completely ruled out, but at least restricted by factors such as style or the syntactic position of the entire NP within the clause. Relative clauses occur postnominally as well, while all other types of modifiers, such as adjectives, possessives, participial phrases and RM-attributes, have to precede the head noun. RM-attributes are built on the basis of AdvPs (cf. (9)) and PPs (cf. (10)) by using the RM *-i*, which is also employed to derive denominal adjectives. Restrictions on the combination of RMs with postpositions will be dealt with in sections 3 and 4.

Hungarian

- (9) a ma-i találkozás
 the today-RM meeting
 ‘today’s meeting’
- (10) az ablak alatt-i virág
 the window under-RM flower
 ‘the flower under the window’ (Laczkó 2000: 634)

Finnish As in Hungarian, the Finnish NP possesses a postnominal slot for relative clauses and allows NPs marked for semantic case and PPs to be simply juxtaposed in postnominal position. Other types of modifiers (adjectives, genitive phrases, participial phrases and RM-attributes) occur prenominal. RM-attributes are formed by attaching the RM *-(i)nen* to AdvPs (cf. (11)) and PPs (cf. (13) & (14)). As in Hungarian, the RM also serves to derive adjectives from nouns (cf. (12)).

Finnish

- (11) eili-nen TV-ohjelma (12) joului-nen tunnelma
 yesterday-RM TV programme Christmas-RM mood
 ‘yesterday’s TV programme’ ‘Christmas mood’

As in Hungarian and Turkish most postpositions can be traced back to nouns (noun stems + case markers). Diachronically the prototypical Finnish PP is analyzed as a NP consisting of a head (P) and a genitive-marked complement (N). Synchronically, those postpositions are considered to be fully grammaticalized. Finnish postpositions for the most part belong to the category of adverb as well, i.e. they can occur also without any complement. Adverbs also often trace back to case-marked nouns, cf. *lähellä* ‘nearby’ < *-lähi-* ‘proximity’ + *lla* (case-marker for adessive case), where in current Finnish *lähi-* exists only as a bound morpheme within compounds (e.g. *lähitulevaisuus* ‘the near future’). Thus no

clear line can be drawn between adverbs and postpositions. Note that this holds for the most central class of postpositions, viz. the local ones. Now, when an adverb or a postposition combines with the RM *-(i)nen*, its case marker is ‘dropped’ and the RM attaches to the ‘bare’ noun stem.⁵ Appropriate examples and postpositions with optional and obligatory complements are shown in (13a, b) and (14a, b).

Finnish

(13a) taka-na → taka-inen
 backside-ESS backside-RM
 ‘at the back, behind’ ‘at the back, behind’

(13b) kulissien taka-inen toiminta
 scenes.GEN back-RM activity
 ‘activity behind the scenes’

(14a) viere-ssä → viere-inen
 edge-INE edge- RM
 ‘next to’ ‘next do’

(14b) postiluukun viere-inen roskakori
 letterbox.GEN edge-RM litter bin
 ‘the litter bin next to the letterbox’

(ISK 2005: 605)

3. Syntactic scope

In this section we pursue the question of whether the RM of the respective languages behaves more like a clitic or an affix. We test each RM according to the following criteria: (i) whether it allows an unrestricted range of host categories (i.e. categories of word forms it attaches to), (ii) whether it may occur only once in coordinate structures (‘suspended marking’), (iii) whether its host may be inflected, (iv) whether it undergoes vowel harmony, given that the language has vowel harmony at all and (v) whether the entire phrase it builds may be further derived.

(i) An unrestricted range of host categories can be considered as indicating that the marker is a clitic, since clitics should not be sensitive at all to the category of its host. As we have seen in section 1, the broadest range is found in Basque where the RM can attach to nouns, postpositions, adverbs, verbs and even adjectives. In Turkish, Hungarian and Finnish the range of categories is more limited, as the RM may only occur in combination with nouns, adverbs and postpositions. From a morphological perspective it is even more limited in Finnish, where adverbs and postpositions in combination with the RM correspond (morphologically) to ‘bare’ noun stems.

⁵ Note that the case marker may not be synchronically active anymore.

(ii) If suspended marking is allowed the marker behaves more like a clitic than an affix. Conversely, if it is disallowed the marker should be regarded as an affix. Suspended marking is generally prohibited in Finnish (cf. (15)) and Hungarian (cf. (16)), but is obligatory in Basque (cf. (17)). In Turkish it is optional and common for a variety of markers, including case-markers, possessive markers, the plural marker and the RM (cf. (18)).

Finnish

- (15) *kielen sisä- ja ulko-iset syt
 language.GEN within and outside-RM(PL) reasons
 ‘intralinguistic and extralinguistic reasons’

Hungarian

- (16) *e gondolat mellett és ellen-i érvek
 this thought for and against-RM arguments
 ‘arguments for and against this thought’

Basque

- (17) gaztelaniatik ingelesera-ko itzulpenak
 Spanish.ELA English.ALL-RM translations
 ‘translations from Spanish into English’ (de Rijk 1993: 148)

Turkish

- (18) Almanya('da-ki) ve Türkiye'de-ki eğitim
 Germany.(LOC-RM) and Turkey.LOC-RM education
 ‘education in Germany and Turkey’

(iii) Since derivational affixes are barred from attaching to inflected stems, the RM behaves like a clitic in case the host can be inflected. Again, we find a clear distinction between Basque and Turkish on the one hand and Hungarian and Finnish on the other. In Basque the host may be inflected for a whole range of semantic cases (cf. (19) for the ablative case and the examples (1) and (17) given above), while in Turkish the RM combines only with hosts marked for the locative case (cf. (20)). In Hungarian, the RM is restricted to uninflected hosts, including those that end in what was a local case affix in earlier stages of the language. For instance, in postpositions like *mögött* (‘behind’) the segment *-tt* corresponds to a former locative affix (cf. (21)). To put it more generally, the RM is limited to adverbs and postpositions lacking any inflectional marker (of any kind). This restriction excludes all not yet fully grammaticalized postpositions, namely idiomatic participles taking a noun phrase complement (cf. (22)) or case-marked nouns being the possessee of a possessive construction (cf. (23)). Likewise, in Finnish the host the RM attaches to can not be inflected. Recall that in Finnish adverbs and postpositions have to drop their case marker when combining with the RM (cf. section 2).

Hungarian

- (25) egymás mellett-i-ség
 each other next to-RM-SUF_{ADJ/NOM}
 ‘co-existence’

Summing up, we found the clearest indication for clitic-hood with the RM in Basque, followed by the RM in Turkish. As for Hungarian and Finnish, we have seen that both markers behave like (derivational) affixes and we can safely treat them as such. The following table summarized the results according to our test criteria, with a plus sign pointing to clitic-hood, and a minus sign to affixhood.

	BSQ	TUR	HUN	FIN
Range of host categories	not limited	N, Adv, P	N, Adv, P	N, Adv, P
No affix suspension	–	–	+	+
No inflected host	–	–	+	+
Vowel harmony		–		
Further derivability	–	–	+	+

4. Semantic type

Having examined the formal properties of the RMs in the two preceding sections we move on to their semantic characteristics. To this end, we first explore the range of semantic relations an RM-attribute may express. Second, we ask to what extent the type(s) of meanings expressed by RM-attributes correspond to typical adjectival meanings.

As for the range of semantic relations we concentrate on the basic local relations: locative, ablative, allative, thereby disregarding temporal or more abstract relations. Furthermore, we restrict ourselves to those RM-attributes that are built on the bases of NPs or PPs, thereby disregarding AdvP (among others).

In Basque, an RM-attribute may express each type of local relation, cf. (26)–(28).

Basque

- (26) LOC mendieta-ko haitzuloak
 mountains.LOC-RM the caves
 ‘the caves in the mountains’ (Trask 2003: 145)

- (27) ABL Santurtziti-ko tren
 Santurtzi.ABL-RM the train
 ‘the train (coming) from Santurtzi’ (Eguzkitza 1993: 167)

- (28) ALL Bilbora-ko bidea
 Bilbao.ALL-RM the road
 ‘the road to Bilbao’ (de Rijk 1993: 148)

Since the Turkish RM *-ki* only combines with NPs and PPs that include a locative case marker attributive NPs/PPs must express a locative meaning, cf. (29). To relate an ablative or allative phrase to a nominal head one has to use a participial phrase (cf. (30), (31)), or a relative clause.

Turkish

- (29) LOC camın kenarında-ki yatak
 glass.GEN side.POSS3SG.LOC-RM bed
 ‘the bed at the side of the window’ (Boeder & Schroeder 1998: 215)
- (30) ABL cahillikten gelen bir şey
 silliness.ABL coming a thing
 ‘a thing (coming) out of silliness’ (Boeder & Schroeder 2000: 191)
- (31) ALL Kuzey Irak’ta-ki Kürtlere giden yardım
 north Iraq.LOC-RM Kurds.DAT going support
 ‘the support for the Kurds in Northern Iraq’
 (Boeder & Schroeder 2000: 191)

Interestingly, the Hungarian RM is less restricted than the Turkish one, since it not only occurs with locative phrases (cf. (32)) but also with ablative phrases (cf. (33)). Again, allative phrases have to be embedded within participial phrases (or relative clauses) in order to serve as adnominal modifiers (cf. (34)).

Hungarian

- (32) LOC a polc mögött-i könyv
 the shelf behind-RM book
 ‘the book behind the shelf’ (Kenesei *et al.* 1998: 97)
- (33) ABL az íróasztal mellől-i okoskodás
 the desk from next to-RM know-all manner
 ‘know-all manner from behind the desk’
- (34) ALL a Budapest mellé való megérkezés
 the Budapest (to) near being arrival
 ‘the arrival near Budapest’

Finnish, in contrast, differs from Hungarian in allowing only locative phrases to build RM-attributes (cf. (35)), while for both ablative and allative phrases one of the other two strategies must be used, cf. (36) and (37).

Finnish

- (35) LOC hotellin takainen pysäköintialue
 hotel.GEN behind.RM parking lot
 ‘the parking lot behind the hotel’
- (36) ABL maan alta tuleva vesi
 earth.GEN from under coming water
 ‘water from under the earth’

- (37) ALL pääkaupungin lähelle suuntautunut retki
 capital.GEN (to) near to directed trip
 ‘a trip near to the capital’

To summarize, all four languages allow locative phrases to combine with the respective RM. Turkish and Finnish RM-attributes (that are built on NPs or PPs) are restricted to the locative type. Hungarian also admits ablative phrases. In Basque all three types of local attributes are possible.

In order to further examine the semantic properties of the RM-attributes we are going to test them for three features that are characteristic of typical qualitative adjectives: gradability, intensification and predicative use.

In Hungarian grading of RM-attributes is completely ruled out, cf. (38). Examples of graded RM-attributes, which can occasionally be found, have an idiomatic reading, cf. (39).

Hungarian

- (38) *a konyha mellettibb szoba
 the kitchen next to.RM.COMP room
 lit. ‘the room more next to the kitchen’
- (39) El sem lehet isten háta mögöttibb helyet képzelni
 PRV not can God back.his behind.RM.COMP place.ACC imagine
 Afganisztánnál
 Afghanistan.ALL
 lit. ‘you cannot imagine a place more behind God’s back than
 Afghanistan’

The same holds true for Finnish, where grading is possible with idiomatic or even lexicalized RM-attributes as in example (40) involving the RM-attribute *kansainvälinen* (‘international’, lit.: ‘between nations’).

Finnish

- (40) tämä kaupunki on kansainvälisempi⁷ kuin ...
 this city is people.PL.between.RM.COMP than
 ‘this city is more international than ...’

Idiomaticity is also crucial for intensification in Hungarian and Finnish, since only RM-attributes with an idiomaticized meaning may combine with intensifiers, as shown by example (41) from Hungarian. However, neither grading nor intensification seems to be possible with the corresponding RM-attributes in Basque and Turkish, regardless of whether their meaning is literal or idiomatic.

⁷ Again, *-n-* alternates with *-s-* (see fn. 6).

Hungarian

- (41) elég történelem előtt-i körülmények
quite history before-RM conditions
'quite prehistorical conditions'

The predicative use of RM-phrases is generally excluded in Basque, Turkish (cf. (42)) and Hungarian (cf. (43)), but can occasionally be found in Finnish (cf. (44)).

Turkish

- (42) Kitap masanın üstünde. / *masanın üstünde-ki.
book table.GEN top.POSS3SG.LOC
'The book is on the table.'

Hungarian

- (43) *Ez a döntés [Európa mellett-i] volt.
this the decision Europe for-RM was
intended meaning: 'This decision was in favour of Europe.'

Finnish

- (44) Tämä järjestö on [Unescon alainen].
this organization is Unesco.GEN under.RM
'This organisation is subordinate to the Unesco.'

The following table presents the results of the tests for gradability, intensification and predicative use. We have found no examples of RM-attributes in Basque and Turkish that would pass these tests. As for Hungarian and Finnish, only RM-attributes having an idiomatic meaning were found to be gradable and/or intensifiable, and the only example of an RM-phrase in predicative function, which was attested in Finnish, has a metaphorical meaning.

	BSQ	TUR	HUN	FIN
Gradability	–	–	(+)	(+)
Intensification	–	–	(+)	(+)
Predicative use	–	–	–	(+)

5. Conclusion

As for the formal aspects of RMs we can conclude that the RM in Finnish and Hungarian qualifies as a derivational affix, whereas the corresponding marker in Turkish and Basque should be analyzed as a clitic. More importantly, while the cases of Basque and Finnish seem more or less clear-cut, this is not the case for Turkish and Hungarian. If we regard bondedness as a scalar concept with Basque and Finnish marking the endpoints, Turkish and Hungarian will lie somewhere

in between, with Hungarian being located closer to the ‘affixal’ end and Turkish between Basque and Hungarian.

With respect to the semantic characteristics of RM-attributes we have observed that those RM-attributes denoting directions, i.e. allatives and ablatives, are restricted as compared to those denoting locations. While the RM-attributes of all four languages were found to express locations, ablatives were attested only in Basque and Hungarian and allatives only in Basque, where RM-attributes cover a considerably larger semantic range than those of the other languages.

Now recall that prototypical adjectives denote qualities, i.e. entities that are persistent and gradable (cf. Croft 1991: 65). As we have seen, locations are not gradable (and neither are directions), but since locations are at least persistent – in contrast to directions – they are closer to the prototype than directions. Interestingly, in being barred from both predicative use and gradability ‘locational’ RM-attributes exhibit two central characteristics of so-called classifying (alias relational) adjectives, such as *presidential* or *departmental* in expressions like *presidential address* and *departmental issues*, respectively. Therefore, it is safe to consider those RM-attributes as classifying adjectives that qualify as adjectives in terms of form. These are the RM-attributes in Hungarian and Finnish.

Furthermore we have seen that some of those ‘RM-adjectives’ may shift from denoting locations to denoting qualities when assuming an idiomatic or at least metaphorical meaning. In this case they can be graded or even used predicatively. This is also in line with their treatment as classifying adjectives as these can usually be forcibly transformed into qualifying adjectives by being graded or put into predicative position, cf., e.g., *Her speech was very presidential*.

Finally we address the question of the relation between form and function, which essentially relates to Croft’s notions of function-indicating and type-changing morphosyntax. As far as Basque and Turkish are concerned there seems to be no indication that clitics should be able to change the semantic type of an expression they attach to. The clitics in Basque and Turkish act merely as function indicators. They syntactically transform phrases of different types into attributes but have no impact on their semantics. Conversely, derivational affixes do not necessarily change the semantic type of their base. The derivational affixes from Hungarian and Finnish that are at issue here derive classifying adjectives and with those the semantic type of the base is usually considered to be preserved. On the other hand we recognized that the expression of locative relations by RM-adjectives was constrained in favour of locations. Since locations are the type of locative relation that comes closest to ‘adjectival meanings’ in terms of semantic type (see above), one may conclude that the relevant affixal RMs, though not type-shifting, could at least be considered as ‘type-restricting’. That the Turkish RM, which we qualified as a clitic, apparently shares this kind of ‘type-restricting’ force does not blur the

picture. Recall that we observed that the Turkish RM shares a number of formal properties with affixes and can by no means considered to be a prototypical clitic like the Basque RM.

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6. Abbreviations

1 – 1. PERSON, 3 – 3. PERSON, ACC – ACCUSATIVE, ABL – ABLATIVE, ALL – ALLATIVE, AUX – AUXILIARY, COMP – COMPARATIVE, CONJ – CONJUNCTION, DAT – DATIVE, ELA – ELATIVE, ERG – ERGATIVE, ESS – ESSIVE, GEN – GENITIVE, INE – INESSIVE, LOC – LOCATIVE, PL – PLURAL, POSS – POSSESSIVE MARKER, PRT – PARTICIPLE, PRV – PREVERB, RM – RELATIONAL MARKER, SG – SINGULAR, SUB – SUBLATIVE, SUF_{ADJ/NOM} – DEADJECTIVAL NOMINAL SUFFIX, SUP – SUPERESSIVE

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