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# Variation on the status of the P and its effects on relative clause construction



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#### **Abstract**

This paper presents an analysis of the structure of relative clauses with an indirect object or adjunct gap in two Mundaka Basque varieties (*Mundaka Basque I* and *Mundaka Basque II*). In Mundaka Basque I, relativization of indirect objects and adjuncts is grammatical when the relative clause is in subject or direct object position, while in Mundaka Basque II this same syntactic configuration is ungrammatical. This variation is explained by a difference in the status of P. In Mundaka Basque I the P has unvalued  $\varphi$ -features, whereas in Mundaka Basque II the P has no unvalued  $\varphi$ -features. Evidence for this comes from PP extraction out of [-Q] embedded clauses: the intermediate  $\nu$  gets its  $\varphi$ -features valued by the P of the extracted phrase in Mundaka Basque I, while it does not in Mundaka Basque II. Additionally, this study shows that the Case matching effect is not a syntactic constraint but rather a morphological constraint.

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Keywords: Syntax; Basque; relative clauses; agree; φ-features

#### 1. Introduction

Basque relative clause (RC) constructions have been studied by many linguists (Artiagoitia, 1992; Gondra, 2015, 2016, in press; Oyharçabal, 1988, 2003; de Rijk, 1972; Vicente, 2002), and yet no work has been done to identify and analyze syntactic differences among Basque speakers caused by historical factors. Thus, this paper establishes the syntactic representation and derivation of Mundaka Basque RCs with an indirect object or adjunct gap among two generations of Mundaka Basque speakers. Basque is an SOV language which uses a gapping strategy for the relativized phrase. An example of Basque RC with a subject gap is provided in (1).

(1) [[Neskiek  $e_i$  erosi dau]-en] sagarragaz<sub>i</sub>] ein dot Girl.D.ERG Ø.ABS buy aux.A3sE3s-C apple.D.SOC make aux.A3sE1s 'I made it with the apple that the girl bought'

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As seen in (1), Basque RCs are pre-nominals. The relative clause precedes the head *sagarragaz*. Additionally, when the head of the RC is assigned structural Case (ergative or absolutive) within the embedded clause, the head is spelled-out with the Case<sup>i</sup> assigned in the matrix clause (Gondra, 2015). Finally, the relative compenentizer -(e)n is attached to the head-final verb in the RC.

In Gondra (in press) a variation in RC construction is identified among two groups of Mundaka Basque speakers. RCs in subject or direct object position, and with an indirect object or adjunct gap are grammatical for the first group (Mundaka Basque I) (2a-b), but ungrammatical for the second one (Mundaka Basque II) (3a-b).

- (2) a.  $[[e_i]$ sagarra dotsaten] mutileri<sub>i</sub>/ \*mutilek<sub>i</sub>] etxie emon ø.DAT apple.D.ABS give aux.E1sA3sD3s-C boy.D.DAT/ boy.D.ERG house.D.ABS erosi dau aux.A3sE3s buy 'The boy that I gave the apple to bought the house'
  - b. [[ $e_i$  Etorri nintzen] mutilekaz<sub>i</sub>/ \*mutilek] jeusi ein dire. ø.SOC come aux.A1s-C boy.D.pl.SOC boy.D.pl.ABS fall do aux.A3pl 'The boys I came with have fallen down'
- (3) Sagarra emon dotsaten] a.  $[[e_i]$ \*mutileri<sub>i</sub>/ \*mutilek<sub>i</sub>] etxie apple.D.ABS aux.E1sA3sD3s-C boy.D.DAT/ boy.D.ERG house.D Ø.DAT give erosi dau aux.3s3s buy
  - 'The boy that I gave the apple to has bought the house'
  - b. [[ $e_i$  Etorri nintzen] \*mutilekaz<sub>i</sub>/ \*mutilek<sub>i</sub>] jeusi ein dire. ø.SOC come aux.A1s-C boy.D.pl.SOC/boy.D.pl.ABS fall do aux.A3pl 'The boys I came with have fallen down'

RCs (2a-b) show inverse Case attraction, the head of the RC being marked for Case within the subordinate clause. In (2a) the head of the RC is a PP in dative while the matrix clause requires an ergative. In (2b), the head of the RC is a PP in sociative while the matrix clause requires an absolutive. In (3a-b), on the contrary, the same configuration renders the structure ungrammatical. The head of the RC cannot be in the Case that either the matrix clause or the embedded clause requires. This study proposes that this variation is due to the different status of their P: in Mundaka Basque I the P has unvalued  $\varphi$ -features, whereas in Mundaka Basque II it does not.

The paper is structured as follows: Section 2 presents the theoretical framework used in the analysis. Section 3 provides evidence that supports the hypothesis made in this study. Additionally, section 4 analyzes the nature of the Case matching effect. Finally, section 5 concludes the main points established in this paper.

### 2. Theoretical Framework

#### 2.1. Assumptions

In this analysis, the theory of cyclicity and phases (Chomsky, 2000, 2001, 2008) is accepted. CPs, vPs PPs and DPs are considered phases and their heads probes (Abels, 2012). In addition, Pesetsky & Torrego's (2004) Agree (Feature sharing version) is followed:

## (4) Agree (Feature sharing version)

- (i) An unvalued feature F (a probe) on a head H at syntactic location  $\alpha$  (F $\alpha$ ) scans its c-command domain for another instance of F (a goal) at location  $\beta$  (F $\beta$ ) with which to agree.
- (ii) Replace  $F\alpha$  with  $F\beta$ , so that the same feature is present in both locations.

Agree (Feature sharing version) allows F on H to serve as the goal for some later operation of Agree triggered by an unvalued, higher instance of F serving as a new probe (Pesetsky & Torrego, 2004). The result will be a single feature F shared by more than two positions. When Case is added to a DP that has structural Case, the former Case replaces the structural Case morphology on the DP, as seen in the RC (1). Nevertheless, when Case is added to a DP that has inherent Case, the inherent Case morphology remains (Richards, 2013).

Crucial to the analysis is also the Valuation/Interpretability Biconditional (Chomsky, 2001). Valuation/Interpretability Biconditional states that an unvalued feature is uninterpretable.

(5) Valuation/Interpretability Biconditional (Chomsky, 2001) A feature F is uninterpretable if F is unvalued.

Once a phase is projected, the complement of the phase head may undergo Spell-out if it contains only interpretable features. An unvalued feature sent to Spell-out would cause the syntactic derivation to crash, as it would not be interpretable at PF (Richards, 2013).

Regarding Basque, the ergativity of Basque relies on its Case and agreement system comes from the T-system, which has an EPP requirement whose satisfaction confers subjecthood status (Laka, 2000; Řezáč, 2008). Case/Agree source of absolutivity is  $\nu$  (Laka, 2000; Gondra, 2015; Řezáč, 2008; Rezac, Albizu & Etxepare, 2010), and the licensing of the internal DP occurs under the Spec-head relationship with the  $\nu$  (Gondra, 2015).

Finally, indirect objects and adjuncts are PPs, while subjects and direct objects are DPs (Řezáč, 2008). Indirect objects and adjuncts constitute a P that project into a PP For instance, in *mutileri* 'to the boy', the postposition -(e)ri in *mutileri* constitutes a P that takes the attached D(P) as a complement: the -e- in -(e)ri is the morphological realization of a D.

#### 2.2. Relativization

Gondra (in press) identifies a syntactic variation in RCs among two groups of Mundaka Basque speakers: Mundaka Basque I and Mundaka Basque II. Mundaka Basque I speakers were born during the years in which Basque was banned by the dictator Francisco Franco. For this reason, they grew up speaking Spanish in public settings and using Basque only in safe and private environments, for example, at home. In addition, as these speakers attended school before the bilingual system was created, Spanish was the only language of instruction. Mundaka Basque II speakers, on the other hand, were born during the Spanish democracy (1978-present). They grew up not only speaking Basque to their family and friends, but also doing so in public settings. Regarding education, they had Basque as the language of instruction.

Regarding relativization, both Mundaka Basque I and Mundaka Basque II can always relativize subjects (6a-c) and direct objects (7a-c):

- (6) a. [[ $e_i$  Sagarra erosi dauen] mutile $_i$ ] ezetzen dot. ø.ERG apple.D.ABS buy aux.A3sE3s-C boy.D.ABS know aux.A3sE1s 'I know the boy that bought the apple'
  - b. [ $[e_i]$  Sagarra erosi dauen] mutileri $_i$ ] emon dotsat  $\emptyset$ .ERG apple.D.ABS buy aux.A3sE3s-C boy.D.DAT give aux.A3sD3sE3s baloie.

ball.D.ABS

- 'I gave the ball to the boy that bought the apple.
- c. [[ $e_i$  Sagarra erosi dauen] mutilegaz<sub>i</sub>] etorri nai. ø.ERG apple.D.ABS buy aux.A3sE3s-C boy.D.SOC come aux.ABS1s. 'I came with the boy that bought the apple'
- (7) a. [[Mutilek  $e_i$  erosi dauen] sagarra<sub>i</sub>] jan dot boy.ERG  $\emptyset$ .ABS buy aux.A3sE3s-C apple.ABS eat aux.A3sE1s 'I ate the apple that the boy bought'
  - b. [[Mutilek *e*<sub>i</sub> erosi dauen] sagarrari<sub>i</sub>] ipini dotsat boy.ERG Ø.ABS buy aux.A3sE3s-C apple.D.DAT put aux.A3sD3sE1s prezidxoa. price.D.ABS

'I put the price on the apple that the boy bought'

c. [[Mutilek  $e_i$  erosi dauen] sagarraga $z_i$ ] ein dot boy.ERG Ø.ABS buy aux.A3sE3s-C apple.D.INSTR make aux.A3sE1s pastela. cake.D.ABS

'I made the cake with the apple that the boy bought'

In (6a-c) and (7a-c), the head of the relative clause, which is assigned structural Case (ergative Case or absolutive Case) within the embedded clause, shows the Case assigned in the matrix clause. Gondra (2015), along the lines of Richards (2013), argues that since the head of the RC was first assigned structural Case either by an internal T or v, the head of the RC spelled-out with the Case that was assigned in the matrix clause, which was the last Case assigned to it: absolutive in (6a&7a), dative in (6b&7b), and sociative in (6c&7c).

Relativization of an indirect object or an adjunct is also grammatical for both groups under the Case matching effect (8a-c). For example, in (8a) the head of the RC *mutileri* 'boy' was dative-marked within the embedded clause and the matrix clause.

(8) a. [ $[e_i]$  Sagarra emon dotsaten] mutileri $_i$ ] eskatu dotsat  $\emptyset$ .DAT apple.D.ABS give aux.A3sD3sE1s-C boy.D.DAT ask aux.A3sD3sE1s etortzeko

to come

- 'I have asked the boy that I gave the apple to to come'
- b. [[Atzo  $e_i$  etorri nintzen] mutilegaz $_i$ ] etorri da Idure gaur. yesterday ø.SOC come aux.A1s-C boy.D.SOC come aux.A3s Idure today 'Idure came today with the boy I came with yesterday'
- c. [[ $e_i$  Urten naien] etxetik<sub>i</sub>] dator Antxon. ø.ELA leave be.A1s-C house.D.INE come.A3s Antxon 'Antxon is coming from the house that I just left'

Nevertheless, neither Mundaka Basque I nor Mundaka Basque II allows relativization of an indirect object or adjunct when the head is assigned a different inherent Case in the main clause. For example, in (9a) the head of the RC is assigned dative Case in the embedded clause, and sociative Case in the matrix one.

(9) a. [[ $e_i$  Sagarra emon dotsaten \*mutileri,/ \*mutilegaz, korrika ø.DAT apple.D.ABS give aux.A3sD3sE1s-C boy.D.DAT/boy.D.SOC run eiten dot.

doing aux.A3sE3s

'I run with the boy that I gave the apple to'

b. [[ $e_i$  Baloie ekarri dotsaten] \*mutileri,/ \*mutilegaitzik,i] etorri ø.DAT ball.D.ABS bring aux.A3sD3sE1s-C boy.D.DAT/boy.D.MOT come nai.

aux.A1s

'I came because of the boy that I gave the apple to'

c. [[ $e_i$  Etorri nintzen] \*mutilegaz<sub>i</sub>/ \*mutilentzako<sub>i</sub>] da sagarra. ø.SOC come aux.A1s-C boy.D.SOC/ boy.D.BEN be.A1s apple.D.ABS 'The apple is for the boy that I came with'

The syntactic variation arises when the indirect object or adjunct is relativized, and the RC is in a subject or direct object position: Mundaka Basque I allows RCs in this configuration (10a-d), while Mundaka Basque II does not (11a-d).

### (10) Mundaka Basque I

a. [ $[e_i]$  Sagarra emon dotsaten] neskieri $_i$ ] etxie ø.DAT apple.D.ABS give aux.A3sD3sE1s-C girl.Ds.DAT house.D.ABS erosi dau.

buy aux.A3sE3s

'The girl that I gave the apple to bought the house'

- b. [[Mutilek  $e_i$  erosi dauzen] sagarrari $_i$ ] mahai gainien dauz boy.ERG Ø.ABS buy aux.A3plE3s-C apple.Dpl.DAT table on.INE aux.A3pl 'The apples that the bought are on the table'
- c. [ $[e_i]$  Etorri nintzen] neskiega $z_i$ ] negar ein dau. ø.SOC come aux.A1s-C girl.Ds.SOC cry do aux.A3sE3s 'The girl that I came with cried'
- d. [[Mikel  $e_i$  jolasten dabilen] baloieka $z_i$ ] amak ekarri dauz. Mikel.ABS Ø.SOC playing aux.A1s-C ball.Dpl.SOC mom.ERG bring aux.A3splE3s 'Mom has brought the balls that Mikel is playing with'

# (11) Mundaka Basque II

a. [[ $e_i$  Sagarra emon dotsaten] \*neskieri $_i$  /\*neskiek $_i$ ] etxie ø.DAT apple.D.ABS give aux.A3sD3sE1s-C girl.D.DAT/girl.D.ERG house.D.ABS erosi dau.

buy aux.A3sE3s

'The girl that I gave the apple to bought the house'

b. [[Mutilek  $e_i$  erosi dauen] \*sagarrari<sub>i</sub>/ \*sagarrak<sub>i</sub>] mahai gainien boy.ERG Ø.ABS buy aux.A3sE3s-C apple.Dpl.DAT/ apple.Dpl.ABS table on. INE dauz.

aux.A3s

'The apples that the boy bought are on the table'

- c. [[ $e_i$  Etorri nintzen] \*neskiegaz<sub>i</sub>/\*neskiek<sub>i</sub>] negar ein dau. ø.SOC come aux.A1s-C girl.D.SOC/ girl.D.ERG cry do aux.A3sE3s 'The girl that I came with bought the house'
- d. [[Mikel  $e_i$  jolasten dabilen] baloieka $z_i$ / \*baloiek $_i$ ] amak Mikel. ABS Ø.SOC playing aux.A1s-C ball.Dpl.SOC/ ball.Dpl.ABS mom.ERG ekarri dauz. bring aux.A3sE3s

'Mom has bought the balls that Mikel is playing with'

The Mundaka Basque I RCs in (10a-d) show inverse attraction. The head of the RC carries the postposition that is required by the relative clause rather than carrying the ergative or absolutive Case that is required by the main clause. The Mundaka Basque II RCs in (11a-d), on the other hand, are ungrammatical. The head of the RC can neither carry the Case assigned within the relative clause nor the one assigned in the matrix clause.

# 2.3. The syntactic structure of Basque RCs

Three syntactic representations of RCs that are accepted crosslinguistically are the Head External Analysis (Chomsky, 1979), the Matching Analysis (Chomsky, 1965; Lees, 1960, 1961; Sauerland, 1998, 2004) and the Head Raising Analysis (Bianchi, 1999, 2000; Kayne, 1994; Schachter, 1973; Vergnaud, 1974), and all of these have been proposed for Basque RCs. Artiagoitia (1992) and Oyharçabal (1988) assume the Head External Analysis (12). In this analysis, RCs are CPs adjoined to the base-generated external N head, which is selected by the determiner head. Additionally, the operator has two functions. First, the operator is interpreted with the N head outside of the Relative Clause via a predication rule. Second, following the operator-variable analysis, the operator binds a variable in the gap position.

$$[NP [CP Op_i [TP \dots Op_i \dots]] [N' N_i \dots]]$$

De Rijk (1972) suggests an analysis that follows the nature of the Matching Analysis (10). The RC contains an internal NP identical to the head, which is external to the RC. The former noun phrase is deleted under identity raising into the position of the external one. The Matching Analysis for Basque RC is represented in (13):

$$[NP [CP [NP_i [TP \dots NP_i \dots]] [N^i N_i \dots]]$$

Gondra (2015, 2016) and Vicente (2002) propose the Head Raising Analysis (14). In the Head Raising Analysis, an external determiner<sup>iii</sup> with [+def] selects the CP of the RC showing a complement structure. Furthermore, the head of the relative clause is a DP with a phonologically null D. This head merges in Spec-CP leaving its copy inside the TP.

$$[DP [CP DP_i [TP \dots DP_i \dots]] D]$$

Gondra (2016) provides strong evidence in favor of the Head Raising Analysis. He runs three experiments where the interpretation of idioms (Brame, 1968; Schachter, 1973), scope interaction (Alexiadou et al., 2000; Aoun and Li, 2003; Bianchi, 1999), and the interpretation of adjectival modifiers (Bhatt, 2002) in RCs are tested by 32 Basque speakers. The results confirm that Basque uses the head raising strategy to construct RCs. Thus, this paper assumes the Head Raising Analysis (14) for Basque RCs.

### 3. Different status of the P

This study argues the variation observed in (10a-d) and (11a-d) is due to the different status of the P: in Mundaka Basque I, the P has unvalued  $\phi$ -features, whereas in Mundaka Basque II, the P lacks them. The  $\phi$ -features in the Mundaka Basque I P allows Mundaka Basque I to relativize an indirect object or an adjunct when the RC is in a subject or direct object position. The lack of  $\phi$ -features in the Mundaka Basque II P, per contra, does not allow Mundaka Basque II to build such a construction.

This section presents the syntactic derivation proposed for this type of RC in Mundaka Basque I and Mundaka Basque, and it also provides evidence to support the different status of the P in these two varieties. However, it first introduces the existence of different types of Ps crosslinguistically.

# 3.1. Different types of Ps crosslinguistically

The existence of different types of Ps can be observed crosslinguistically (Béjar, 2003). Řezáč (2008) and Rouverert (1991) claim that variation in the status of Ps can be found even within a single language. To evidence this, they use examples of Nepali and Welsh respectively. In Nepali, ergative subjects control the same verbal agreement as nominative subjects, but dative subjects do not. Consider the following examples:

```
kin-ch-u
(15)
       a. ma
                 yas
                              pasal-mā
                                             patrikā
                                                                   buy-NPT-1s
         1snom dem:obl
                              store-LOC
                                             newspaper:NOM
        'I buy the newspaper at this store'
       b. maile yas
                          pasal-mā
                                     patrikā
                                                            kin-ẽ /
                                                                    *kin-yo
          1sERG DEM:OBL store-LOC newspaper:NOM
                                                            buy-PT1s/ buy-PT3SM
         'I bought the newspaper at this store'
                           man par-ch-au
       c. malāī timī
                                                / *par-ch-u
          1sDAT 2mhNOM liking occur-NPT-2mh/*occur-NPT-1s
          'I like you'
```

(Řezáč, 2008:21)

Assuming that both ergative and dative subjects, unlike nominative subjects, bear theta-related Case in Nepali, Řezáč (2008) states that two different Ps are involved in these examples (15a-c):  $P_{ERG}$ , and  $P_{DAT}$ . The first P is selected by v while the second one by Appl. In (15a) the verb kin- $\ell$ 0 'buy' shows agreement with the subject ma 'I' (1sNOM). In (15b) the verb kin- $\ell$ 0 'buy' also shows agreement with the subject maile 'I' (1sERG). In (15c), however, the verb par-ch-au0 'occur' does not show agreement with the subject  $mal\bar{a}\bar{a}$  'I' (1sDAT). Řezáč argues that the fact that in (15b) the verb kin- $\ell$ 0 'buy' shows  $\ell$ 0-agreement with the complement DP ma0 of the  $\ell$ 1 (1sERG) indicates that the  $\ell$ 1 features valued from  $\ell$ 1. In

(15c), on the other hand, since the verb does not show agreement with the  $mal\bar{a}\bar{i}$  'I' (1sDAT) but with  $tim\bar{i}$  'you' (2mhNOM), he concludes that  $P_{DAT}$  creates a PP opaque to external  $\phi$ -Agree.

In Welsh there are two classes of prepositions: uninflected prepositions (16) and conjugated prepositions (17). The second type of preposition is inflected for agreement in person and number, and even for gender in the third person singular, while the first type of preposition is not.

```
(16)
                   'with'
                                               (17)
                                                        Paradigm of the preposition at:
        a. ag
        b. ag ef
                  'with him'
                                                        ataf
                                                                'to me'
                                                                            atom 'to us'
        c. â Siôn 'with Siôn'
                                                                'to you'
                                                                            atoch 'to you'
                                                        atat
                                                                'to her'
                                                                            atynt 'to them'
                                                        ato
                                                                'to her'
                                                        ati
                                                                  (Rouveret 1991:354-355)
```

Hence, the status of Ps may vary not only crosslinguistically (Béjar, 2003) but also within the same language (Řezáč, 2008; Rouveret, 1991;). Now the following part of this section shows that the status of the P differ in Mundaka Basque I and Mundaka Basque II.

# 3.2. Different types of Ps in Mundaka Basque I and Mundaka Basque II

When a noun phrase can be relativized in a clause, it is said to be accessible to relative-clause formation. Oyharçabal (2003) states that Basque accessibility displays the following syntactic hierarchy:

(18) absolutive & ergative > dative > subcategorized adverbial > adjunct adverbial

According to Oyharçabal (2003), relativization is possible in all four cases: absolutive, ergative and dative phrases show no difficulty, subcategorized adverbial phrases show restrictions, and adjunct adverbial phrases resist relativization when there is no Case matching. Assuming that an adjunct adverbial phrase is a PP whereas a subcategorized adverbial phrase is not, Artiagoitia (1992) argues that the impossible relativization of the former without Case matching is due to Subjacency violation as a the null operator crosses two bounding nodes (two PPs) when moved to the specifier of C: the internal PP and the adjunct phrase PP. However, Artiagotia's proposal makes wrong predictions. For instance, it predicts relativization of an indirect object to always be allowed, but this is not the case for any of the two Mundaka Basque varieties.

Relativization in these two varieties can be explained by proposing a P with  $\varphi$ -features in Mundaka Basque I, and a P without  $\varphi$ -features in Mundaka Basque II. In fact, the following examples of Mundaka Basque I show that the main auxiliary verb agrees in number with the head of the RC, which indicates that a higher probe (T or  $\nu$ ) got its  $\varphi$ -features valued from the head. When this head is singular, the auxiliary verb in the main clause is singular (19a), and when it is plural, the auxiliary verb in the main clause is also plural (19b).

```
(19) a. [[e<sub>i</sub> Sagarra emon dotsaten] neskieri<sub>i</sub>] etxie

ø.DAT apple.D.ABS give aux.A3sD3sE1s-C girl.Ds.DAT house.D.ABS
erosi dau.
buy aux.A3sE3s

'The girl that I gave the apple to bought the house'
```

b. [[Mutilek  $e_i$ ] erosi dauzen] sagarrari<sub>i</sub>] mahai gainien dauz boy.ERG Ø.ABS buy aux.A3plE3s-C apple.Dpl.DAT table on.INE aux.A3pl 'The apples that the boy bought are on the table'

Assuming the Head Raising Analysis, the RCs with an indirect object or adjunct gap and the RC in subject or direct object position show the following syntactic structure:

(20)

In Mundaka Basque I, the P's unvalued φ-features are valued by the internal D. The PP, the head of the RC, raises to Spec-CP. CP is a phase, and therefore the complement of C is sent to Spell-out. As the head of the RC is not spelled out yet, its valued φ-features serve as a goal for a later operation of Agree triggered by an unvalued and higher probe (Pesetsky & Torrego, 2004). Thus, the T or v in the matrix clause gets its φ-features valued from the P in the head of the RC. With respect to Case, the Case morphology of the head remains as it is inherent. Finally, as no unvalued features remain, the syntactic derivation does not crash when sent to spell-out (Richards, 2013). In Mundaka Basque II, however, the internal P lacks unvalued φ-features. Thus, even though the head of the RC still serves as a goal for more operations of Agree, it is not an appropriate one for the probe T or v in the matrix clause due to its lack of  $\varphi$ -(valued) features. Consequently, the  $\varphi$ -features in the probe T or v remain unvalued, causing the syntactic derivation to crash when they are sent to Spell-out.

Evidence for variation in the status of Ps comes from PP extraction out of a [-Q] embedded clause. When extracting a PP from a [-Q] embedded clause, the intermediate v, which is a probe with unvalued φ-features (Laka, 2000; Řezáč, 2008; Rezac, Albizu & Etxepare, 2011), is able to have its φ-features valued Agreeing with the P of the extracted phrase in Mundaka Basque I but not in Mundaka Basque II. Consider sentences (21a-d) in Mundaka Basque I.

(21)a. Mutilek dotsiela aitsitsek sagarra emon apple.D.ABS aux.A3sD3plE3s-C grandfather.ERG boy.D.ERG ø.DAT give neskari; dire. esan dauzen jausi ein say aux.A3plE3s-C girl.D.pl.DAT fall do aux.3pl 'The girls that the grandfather said that the boy gave the apple to fell'

b. Mutile etorri Nereak  $e_{\rm i}$ dala esan dauzen boy.D.ABS aux.A3s-C Nerea.ERG aux.A3plE3s-C ø.SOC come say txakurrekaz<sub>i</sub> politxek dire. dog.D.pl.INST pretty.D.pl be.A3pl

'The dogs that Nerea said the boy came with are pretty'

- c. Jaidxe  $e_{i}$ eingo dauela lagunek esan dauzen do.fut friend.D.ERG aux.A3plE3s-C party.D.ABS Ø.INS aux.A3sE3s-C say hondartzatan; handidxek dire. be.A3pl beach.D.pl.INE big.D.pl 'The beaches where the friends said that he will have the party are pretty'
- d. Gaztiek urteten dizela dauzen  $e_{i}$ esan young.D.pl.ERG Ø.ELA leave aux.3pl-C say aux.A**3pl**E3s-C tabernatatik<sub>i</sub> Urdaibaikoak dire. bar.D.pl.ELA Urdaibai.LOC.D.pl be.3pl 'The bars that he said the young people leave from are in Urdaibai'

As seen in (21a-d), the intermediate auxiliary  $verb^{iv}$  dauz shows agreement with the DP (third person plural) complement of the extracted PP (*neskari* 'to the girls' in (21a), *txakurrekaz* 'with the dogs' in (21b), *hondartzatan* 'at the beaches' in (21c), and *tabernatatik* 'from the bars' in (21d)). Thus, the intermediate v in (21a-d) gets its  $\varphi$ -features valued by Agreeing with the P of the extracted phrase (while moving through Spec-CP and Spec-vP). Now consider examples (22a-e) in Mundaka Basque  $II^v$ :

- (22)a. Mutilek sagarra dotsiela aitsitsek emon boy.D.ERG Ø.DAT apple.D.ABS aux.A3sD3plE3s-C grandfather.ERG give neskari<sub>i</sub> gusteten jatsie. esan dauen itsasoa aux.A3sE3s-C girl.D.pl.DAT see.D.ABS like aux.A3sD3pl 'The girls that the grandfather said that the boy gave the apple to like the sea'
  - b. Mutile  $e_i$  etorri dala Nereak esan dauen boy.D.ABS ø.SOC come aux.A3s-C Nerea.ERG say aux.A3sE3s-C txakurrekaz<sub>i</sub> jolastu dot. dog.D.pl.INST play aux.A3sE1s
    - 'I played with the dogs that Nerea said the boy came with'
  - c. Jaidxe eingo dauela lagunek dauen esan Party.D.ABS do.fut aux.A3sE3s-C friend.D.ERG aux.A3sE3s-C ø.INS say hondartzatan<sub>i</sub> pasieten dot. beach.D.pl.INE walk aux.A3sE3s
    - 'I walk on the beaches the friends said that he/she will have the party on'
  - d. Gaztiek  $e_{\rm i}$ urteten dizela esan dauen young.D.pl.ERG Ø.ELA leave aux.A3pl-C aux.A3sE3s-C say tabernatatik<sub>i</sub> dator musikie. bar.D.pl.ELA come.3s music.D

'The music comes from the bars that (he/she) said that the young people leave from'

In (22a-d), on the contrary, the auxiliary verb dau shows third person singular agreement even though the DP complement of the extracted PP has third person plural feature (neskari 'to the girls in (22a), txakurrekaz 'with the dogs' in (22b), hondartzatan 'on the beaches' in (22c), and tabernatatik 'from the bars' in (22d)). The fact that the auxiliary verb dau shows third person singular instead of third personal plural indicates that the intermediate v could not receive the valued  $\phi$ -features from the P of the extracted phrase. 'i

Wh- PP extraction out of a [-Q] embedded clause also confirms the different status of P in the two Mundaka Basque varieties. In Mundaka Basque I, the valued  $\phi$ -features of the P (valued by Agree with its DP complement) get copied into the intermediate  $\nu$ . However, this does not occur in Mundaka Basque II since the P has no  $\phi$ -features that can be valued. Consider the following examples in Mundaka Basque I (23a-d).

- (23) a. Nortzuri $_i$  esan dauz aitsitsek  $e_i$  esan dotsatiela who.pl.DAT say aux.A3plE3s grandfather.ERG  $\emptyset$ .DAT say aux.A3sD3plE1s-C agur?
  - 'Who did the granddad say that I said goodbye to?'
  - b. Nortzukaz<sub>i</sub> esan dauz mutilek  $e_i$  etorri dala medikue? what.pl.SOC say aux.A**3pl**E3s boy.D.ERG Ø.SOC come aux.A3s-C doctor 'Who did the boy say the doctor came with?'
  - c. Ze lekutan<sub>i</sub> esan dauz Mikelek  $e_i$  eingo dauela which place.D.pl.INE say aux.A3plE3s Mikel.ERG Ø.INE do.fut aux.A3sE3s-C jaidxe? party.D
    - 'Which places did Mikel say he will have the party at?'
  - d. Ze lekutatik<sub>i</sub> esan dauz Andonik  $e_i$  datozela which place.D.pl.ALL say aux.A3plE3s Andoni.ERG Ø.ELA come.A3pl-C gaztiek? young.D.pl.ABS
    - 'Which places did Andoni say the young people come from?

In (23a-d) the higher auxiliary verb *dauz* (absolutive third person plural) shows third person plural agreement with the extracted PP (*Nortzuri* 'to who' in (23a), *Zertzukaz* 'with what' in (23b), *Ze lekutan* 'in which places' in (23c), and *Ze lekutatik* 'from which places' in (23d)). Now consider the following examples in Mundaka Basque II (24a-d):

- (24) a. Nortzuri $_i$  esan dau aitsitsek  $e_i$  esan dotsatiela who.pl.DAT say aux.A3sE3s grandfather.ERG  $\emptyset$ .DAT say aux.A3sD3plE1s-C agur? bye
  - 'Who did the granddad say that I said goodbye to?
  - b. Nortzukaz<sub>i</sub> esan dau mutilek  $e_i$  etorri dala medikue? what.pl.SOC say aux.A3sE3s boy.D.ERG  $\emptyset$ .SOC come aux.A3s-C doctor.D.ABS 'What did the boy say the doctor came with?'
  - c. Ze lekutan<sub>i</sub> esan dau Mikelek  $e_i$  eingo dauela which place.D.pl.INE say aux.A3sE3s Mikel.ERG Ø.INE do.fut jaidxe? party.D.ABS
    - 'Which places did Mikel say he will have the party at?

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d. Ze lekutatik<sub>i</sub> esan dau Andonik e_i datozela which place.D.pl.ALL say aux.A3sE3s Andoni.ERG Ø.ELA come.3pl-C gaztiek?
young.D.pl.ERG
'Which places did Andoni say the young people come from?'
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In (24a-d), the higher auxiliary verb *dau* agrees with the third person singular and not with the third person plural of the extracted PP (*Nortzuri* 'to who' in (24a), *Zertzukaz* 'with what' in (24b), *Ze lekutan* 'in which places' in (24c), and *Ze lekutatik* 'from which places' in (24d)).

The results obtained from PP extraction out of a [-Q] embedded clause both in (21a-d and 22a-d) and (23a-d and 24a-d) conclude that the status of P varies in Mundaka Basque I and Mundaka Basque II. In the first variety, Ps have  $\phi$ -features. Consequently, the P in the head of the RC can value the unvalued  $\phi$ -features of the external T/ $\nu$ . In the second variety, on the contrary, since Ps lack unvalued  $\phi$ -features, the P in the head of the RC cannot value the unvalued  $\phi$ -features of the higher T/ $\nu$ , and therefore the derivation crashes.

# 4. The Case matching effect

As presented in section 2.2, none of the two varieties of Mundaka Basque can relativize an indirect object or an adjunct when the head of the RC is assigned a different inherent Case in the matrix clause. This is shown again in examples (25a-b):

- (25) a. [ $[e_i]$  Sagarra emon dotsaten \*mutileri,/ \*mutilegaz, korrika ø.DAT apple.D.ABS give aux.A3sD3sE1s-C boy.D.DAT/boy.D.SOC run eiten dot. doing aux.A3sE3s 'I run with the boy that I gave the apple to'
  - b. [[Atzo  $e_i$  etorri nintzen] \*mutilegaz<sub>i</sub>/ \*mutilentzako<sub>i</sub>] da sagarra. yesterday Ø.SOC come aux.A1s-C boy.D.SOC/ boy.D.BEN be.A1s apple.D.ABS 'The apple is for the boy that I came with yesterday'

In order for the RCs in (25a-b) to be grammatical in both Mundaka Basque varieties, a Case matching effect is required. According to Bresnan and Grimshaw (1978), Grimshaw (1977), and Groos and Riemsdijk (1979), the Case matching effect occurs when the head of the RC is assigned the same Case in the embedded clause and matrix clause. For example, in the RC (26a) the head of the RC *mutileri* is assigned dative Case by the P in the embedded clause and the matrix clause.

 $(26) \quad a. \ [[\textit{e}_i \quad Sagarra \quad emon \quad dotsaten] \qquad mutileri_i] \quad eskatu \quad dotsat \\ \quad \varnothing. DAT \quad apple. D. ABS \quad give \quad aux. A3sD3sE1s-C \quad boy. D. DAT \quad ask \quad aux. A3sD3sE1s \\ \quad etortzeko \\ \quad to \quad come$ 

'I have asked the boy that I gave the apple to to come'

b. [[Atzo  $e_i$  etorri nintzen] mutilegaz<sub>i</sub>] dator Mikel gaur. yesterday ø.SOC come aux.A1s-C boy.D.SOC come.3s Michael today 'Today Michael is coming with the boy that I came with yesterday'

The proposed types of Ps for Mundaka Basque I and Mundaka Basque II do not predict a requirement for Case matching, and yet sentences (27a-b) are ungrammatical for both varieties. We can consider the following syntactic representation of the RCs in (26a-b):

$$(27) \qquad \qquad P \qquad P \qquad \qquad P \qquad$$

In Mundaka Basque I, given that Ps have unvalued  $\phi$ -features, the internal P's  $\phi$ -features are valued by Agreeing with the internal D. The head of the RC is in Spec-CP, and therefore its values are still active for a possible Agree operation with a higher probe. The external P Agrees with the internal P, and consequently its  $\phi$ -features are valued. In Mundaka Basque II, Ps lack unvalued  $\phi$ -features, and therefore the internal P does not have valued  $\phi$ -features by Agreeing with the internal D. However, since the external P also has no unvalued  $\phi$ -features, no feature remains unvalued. Hence, neither in Mundaka Basque I nor in Mundaka Basque II does the syntactic derivation crash as there are not any unvalued features sent to Spell-out.

What presents a restriction to the configuration under discussion is not syntax, but morphology (Bhatt, 1997). The morpheme to express sociative case and instrumental case, which in both Mundaka Basque varieties is identical, supports that the Case matching parameter is required by morphology. In the following example, the head of the RC is assigned sociative Case within the embedded clause and instrumental Case within the matrix one.

(28) [[ $e_i$  Kalera urten naben] baloiegaz] apurtu naben leihoa. ø.SOC street.ALL leave aux.ps.E1sA3s-C ball.D.INS break aux.ps.E1sA3s window.D 'I broke the window with the ball that I carried with me'

In (28), the RC does not display syntactic Case matching – the Case marking required by the P in the main clause and the Case marking of the PP head are different – and the sentence is still grammatical. Thus, it is evident from this example that the Case matching effect is a morphological phenomenon.

## 5. Conclusion

In Gondra (in press) a variation in RC construction is identified among two groups of Mundaka Basque speakers. RCs in subject or direct object position, and with an indirect object or adjunct gap are grammatical for the first group (Mundaka Basque I), but ungrammatical for the second one (Mundaka Basque II). The present study concludes that this variation is due to the different status of the P: in Mundaka Basque I the P has unvalued  $\phi$ -features, while in Mundaka Basque II it does not.

This has been confirmed by PP long distance extraction out of a [-Q] embedded clause: when extracting a PP from a [-Q] embedded clause, the intermediate v, which is a probe with unvalued  $\varphi$ -features, is able to have its  $\varphi$ -features valued Agreeing with the P of the extracted phrase in Mundaka Basque (29a-b) I but not in Mundaka Basque II (30-a-b).

- (29)a. Mutilek sagarra emon dotsiela aitsitsek esan boy.D.ERG Ø.DAT apple.D.ABS give aux.A3sD3plE3s-C grandfather.ERG say dauzen neskari, jausi ein dire. aux.A3plE3s-C girl.D.pl.DAT fall do aux.3pl 'The girls that the grandfather said that the boy gave the apple to fell'
  - b. Nortzuri $_i$  esan dauz aitsitsek  $e_i$  esan dotsatiela who.pl.DAT say aux.A3plE3s grandfather.ERG  $\emptyset$ .DAT say aux.A3sD3plE1s-C agur?

'Who did the granddad say that I said goodbye to?'

- (30)aitsitsek a. Mutilek sagarra emon dotsiela esan boy.D.ERG Ø.DAT apple.D.ABS aux.A3sD3plE3s-C grandfather.ERG say give neskari<sub>i</sub> dauen itsasoa gusteten jatsie. aux.A3sE3s-C girl.D.pl.DAT see.D.ABS like aux.A3sD3pl 'The girls that the grandfather said that the boy gave the apple to like the sea'
  - b. Nortzuri $_i$  esan dau aitsitsek  $e_i$  esan dotsatiela who.pl.DAT say aux.A3sE3s grandfather.ERG Ø.DAT say aux.A3sD3plE1s-C agur?

'Who did the granddad say that I said goodbye to?

In (29a-b) the intermediate auxiliary verb *dauz* shows agreement with the DP (third person plural) complement of the extracted PP (*neskari* in (29a) and *nortzuri* in (29b)). In (30a-b), on the contrary, the auxiliary verb *dau* shows third person singular agreement even though the DP complement of the extracted PP has third person plural feature (*neskari* in (30a) and *nortzuri* in (30b)).

In addition, the two varieties of Mundaka Basque require the Case matching effect to relativize an indirect object or an adjunct when the head of the RC is assigned an inherent Case in the matrix clause (Gondra, in press). This study also concludes that the Case matching effect does not constitute a syntactic constraint but a morphological constraint. The fact that the head of the RC can be assigned sociative Case within the embedded clause and instrumental Case within the matrix one, and the sentence still be grammatical, shows that the restriction is based on the type of morpheme and not on the Case assigned by a probe.

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<sup>&</sup>lt;sup>i</sup> ERG=Ergative; ABS=Absolutive; DAT=Dative; BEN=Benefactive; GEN=Genitive; INE=Inessive; ALLA=Allative; ELA=Elative; INSTR=Instrumental; MOT=Motivational; SOC=Sociative.

<sup>&</sup>lt;sup>ii</sup> The dative-marked subject of psychological verbs is an exception since syntactically it behaves as a DP (Gondra, 2016; Vicente, 2012).

iii Since Partee (1975), many people take the role of the external D to be purely semantic.

# P'nin durumundaki değişim ve bunun bağıl cümle yapımı üzerindeki etkisi

### Öz

Bu makale, iki Mundaka Bask çeşidinde (Mundaka Bask I ve Mundaka Bask II) dolaylı nesne veya ek boşluklu ilgi cümlelerin yapısının bir analizini sunmaktadır. Mundaka Bask 1'de, dolaylı nesne ve eklerin sıfatlaştırılması, ilgi cümleciği özne ya da nesne konumunda olduğunda, dilbilgisi kurallarına uygundur. Ancak Mundaka Bask 2' de bu sözdizimsel yapı dilbilgisi kurallarına uygun değildir. Bu değişim, P'nin durumundaki bir farklılık ile açıklanmaktadır. Mundaka Bask 1'de, P'nin değerlenmemiş j- özellikleri bulanmasına karşın, Mundaka Bask 2' de, P hiç değerlenmemiş φ- özelliklere sahip değildir. Bunun kanıtı, [-Q] gömülü cümlelerden PP çıkarımı ile elde edilir: Mundaka Bask 1'de, Mundaka Bask 2' nin aksine, ara v, φ özelliklerini, çıkarılan cümlenin P'siyle değerlendirir. Buna ek olarak, bu çalışma Durum Eşleştirme Etkisinin bir sözdizimsel kısıtlama değil, morfolojik bir kısıt olduğunu göstermektedir.

Anahtar sözcükler: Söz dizimi kuralları; ilgi cümlesi; uyum; φ- özellikleri.

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Transitive verbs in Basque show agreement in person and number with the subject and direct object.

For Mundaka Basque II, examples with matching effect are provided it is the only way Mundaka Basque II allows relativization of PPs.

vi Since the PP is not an adequate goal for the v, it may be that v Agrees with the lower CP if we assume that CPs have third person singular features. This is not an option in RCs as DPs are phases, and as such, the CP complement of the external D is spelled-out when the external DP projects. Thus, the CP is not targetable by the T/v in the matrix clause.