HEAD RAISING ANALYSIS AND CASE REVALUATION

Ager Gondra SUNY – Purchase College

ABSTRACT. This paper establishes the syntactic representation and derivation of relative clauses in Basque from a Minimalist approach (Chomsky 2000). Basque follows the Head Raising Analysis to construct relative clauses ([DP [CP DPi [C' [TP ...ti ...]]] D]): the CP of the relative clause is a complement to the external D, and the DP Head of the relative clause, base-generated inside the TP, moves to the specifier position of the CP. This structure predicts that the DP Head of the relative clause will show a TP-internal Case. However, this is not so since it manifests the Case associated with the main clause. In order to address this Case inconsistency, DCase Precariousness Condition is proposed. This condition states that a DCase valued u-feature is precarious until it is sent to Spell-Out and therefore, the value is visible for further targeting by a c-commanding Probe. Evidence for this multiple Agree operation comes from a DP long distance extraction.

Keywords: Syntax; minimalist approach; Basque; relative clause; Agree operation

RESUMEN. Este artículo establece la representación y derivación sintáctica de las cláusulas relativas en euskera desde un enfóque minimalísta (Chomsky 2000). El euskera sigue el Análisis Ascenso de Núcleo para la construcción de las cláusulas relativas ([SD [SC SDi [C' [SI ...hi ...]]] D]): el SC de la cláusula relativa es el complemento del D externo, y el Núcleo de la clausula relativa, generado dentro del SI, se mueve a la posición del especificador del SC. Esta estructura predice que el Núcleo SD de la cláusula relativa va a llevar el Caso del SF interno. Sin embargo, se observa que eso no es así, ya que manifiesta el Caso asociado con la cláusula principal. Para tratar tal inconsistencia, se propone la Condición de *Precariedad del* Caso_D. Esta condición establece que un rasgo valuado con un Caso_D es precario hasta que se haya materializado, y por lo tanto, sigue siendo una posible meta para una sonda que lo manda-c. La extracción de larga distancia de un SD ofrece evidencia de esta múltiple operación Acuerdo.

Palabras clave: sintaxis; minimalismo; euskera; cláusulas relativas; operación de Acuerdo

1. Introduction

In this paper I establish the syntactic representation and derivation of relative clause (RC) constructions in Basque, and address the issue of the Agree operation in such construction from a Minimalist approach (Chomsky 2000). An example of Basque RC is provided in (1).

(1) [[e_i Sagarra erosi dau]-en] neskie_i] etorri da hona. Ø.ERG apple.D.ABS buy aux.A3sE3s-C girl.D.ABS come aux.A3 here 'The girl that bought the apple came here.

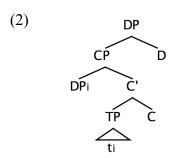
© Ager Gondra. *Borealis: An International Journal of Hispanic Linguistics*, 2015, 4 / 2. pp. 193-225. http://dx.doi.org/10.7557/1.4.2.3399

This is an Open Access Article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/legalcode) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



Basque RCs are pre-nominals. In (1) the relative clause precedes the Head *neskiek*. Additionally, the Head of the RC has a definite marker. Finally, the relative compenentizer -(e)n is attached to the head-final verb in the RC.

First, I will propose that Basque RCs show the Head Raising Analysis (2): the CP of the RC is a complement to D, and the Head of the relative clause, a DP base-generated inside the TP, moves to the Specifier position of the CP. Following Bianchi (1999, 2000), I will claim that the Head of the RC raises with an empty D.



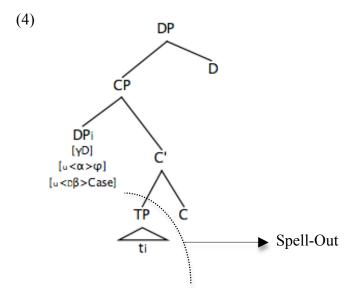
The structure in (2) predicts that the raised DP_i will show a TP-internal Case. However, this is not so since the DP_i manifests the Case associated with the main clause (1). According to Borsley (1997), having two different Cases, one in the trace and the other one in the head of a chain, causes a Case clash. Nevertheless, there is no need to postulate such a thing since indeed there is crosslinguistic evidence of Multiple Case Checking (Bejar and Massam 1999). Thus, in order to address this Case inconsistency, I will propose a condition that states that a DCase¹ valued u-feature is *precarious* until it is sent to Spell-Out² and therefore, the value is visible for further targeting by a c-commanding Probe (3).

(3) DCase Precariousness Condition
A DCase valued u-feature is precarious iff it is not spelled out.
A precarious feature is still visible for targeting by a Probe.

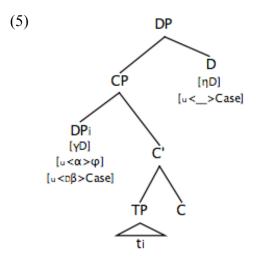
The construction of a RC with a DP Head is represented in (4-7). In (4), as the Head in the Spec-CP position has not been spelled out yet, the $_D$ Case valued u-feature [$_u$ < $_D$ β >Case] is *precarious*, and therefore, it remains visible for further targeting by a c-command Probe.

¹ I assume that there are two types of Case, structural (ergative and absolutive in Basque) and non-structural, which are defined in terms of categorical features of Case assigners (Chomsky 1995). I will be calling the structural Case $_DCase$ and the non-structural Case $_PCase$.

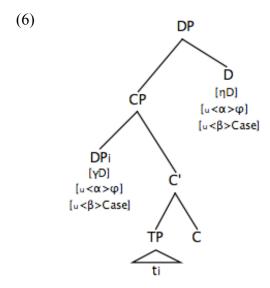
² As Spell-Out is composed by different parts (cf. Embick & Noyer 2001), the valued u-feature is *precarious* concretely until Vocabulary Insertion.



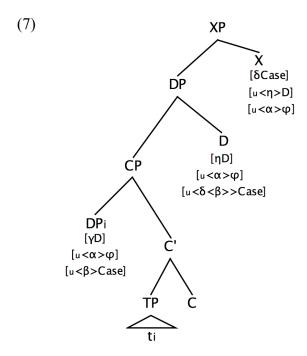
In (5), assuming that the external D occurs for purely syntactic reasons, like some sort of expletive determiner (Caponigro 2000), and that it needs to license the Head of the RC for its interpretation requirement (Bianchi 1999, 2000), I suggest that this external D has an underspecified feature set with only a u-Case feature and a D feature, but no phi-features.



In (6), the external D targets the internal D to have its u-Case feature valued, and copies the full feature matrix of the internal D ([$_u$ < $_D\beta$ >Case] and [$_u$ < $_C$ > $_\phi$]) as part of the Agree operation.



In (7), since $[_{u}<_{D}\beta>$ Case] of this external D is still *precarious* because it has not be spelled out yet, it is visible for targeting by the c-commanding Probe (T, v or P). When the Probe X Agrees with the external D, $[_{u}<_{D}\beta>$ Case] obtains the value $[<\delta>$ Case] and X gets its unvalued φ -features valued ($[_{u}<\alpha>\varphi]$). Finally, the external D, with $[_{u}<\delta<_{D}\beta>>$ Case] values, spells-out the last $_{D}$ Case value ($[<\delta>$ Case]) that it obtained.



This paper is structured as follows. Section 2 will provide evidence in favor of the Head Raising Analysis in Basque RCs. Section 3 will show that the Head of the RC raises with an empty D. Section 4 will propose the DCase *Precariousness* Condition and its implementation in multiple Agree operation. Finally, Section 5 will conclude the main points that are established in this paper.

2. Head External Analysis or Head Raising Analysis?

Two syntactic representations of relative clauses that are accepted in the Minimalist theoretical framework (Chomsky 2000) are the Head External Analysis (Chomsky 1979) and the Head Raising Analysis (Kayne 1994, Bianchi 1999, 2000). In the Head External Analysis (8a), the CP is an adjunct to the external N head, and the operator, which is interpreted with the Head outside the RC, raises to the Specifier position of the CP. In (8b), on the contrary, the CP of the RC is a complement to D, and the DP Head of the relative clause, base-generated inside the TP, moves to the Spec-CP.

(8) a.
$$[DP[NP[N, N_i...]][CPOp_i[TP...t_i...]]]]$$

b. $[DPD[CPDP_i[C[TP...t_i...]]]]$

Aoun and Li (2003) show the need to distinguish different types of relative constructions across languages. Concretely, they conclude that both the Head External Analysis and the Head Raising Analysis are available to derive relative constructions. Their claim is crosslinguistically supported as RCs in Finnish (Huhmarniemi and Brattico 2013), Zapotec (Kalivoda and Zyman 2015), Hindi (Srivastav 1991) and Bulgarian (Izvorski 1996) follow the first analysis, while RCs in Spanish (Arregi 1998, 2000, Vicente 2004), French (Vergnaud 1974), Ancient Greek (Bianchi 2000), Middle High German (Pittner 1995) and Turkish (Meral 2004) follow the second one.

In the case of Basque relative clause constructions, both structures (8a-b) have been proposed. De Rijk (1962), Oyharçabal (1988), Artiagoitia (1992) and Rebuschi (2003) assume the Head External Analysis, while Vicente (2002) postulates the Head Raising Analysis. In this paper I provide evidence to support the Head Raising analysis (9):

(9)
$$\left[DP \left[CP DP_i \left[C \left[TP \dots t_i \dots \right] \right] \right] D \right]$$

One aspect in which the Head External Analysis and the Head Raising Analysis differ is whether the Head of a relative construction can be reconstructed or not. In cases where reconstruction of the DP Head is allowed, the Head of a relative construction is derived by movement (8b), whereas in cases where reconstruction is not allowed, the Head is not derived by movement (8a).

In this section I will apply two syntactic tests based on reconstruction effects: scope interaction and idioms. These two tests are going to be used to identify the local structural relation between the Head of the RC and the elements inside the TP. Observing that such local relation exists, we can conclude that the Head was base-generated inside the TP and underwent movement to its surface position, and therefore, that Basque RCs follow the Head Raising Analysis (9).

2.1. Scope interaction

The Head Raising Analysis predicts that a DP Head with an existential quantifier ∃ can be interpreted as having narrow scope with respect to the universal quantifier ∀ within the relative clause (Aoun and Li 2003). *Bakoitz* 'each' has been described as the Basque inherently distributive quantifier (Etxeberria 2001, 2002, 2008) and in contrast to the other universal quantifiers, *bakoitz* 'each' always forces distributive interpretations (Etxeberria 2012).

AGER GONDRA

Moreover, *bakoitz* 'each' must have an element syntactically deeper in the structure over which to distribute³, or more precisely, a variable over which to get scope (Etxeberria 2001, 2002) as sentences (10a-c) show:

- (10) a. Ume bakoitzak sagar bat ikusi deu.
 kid each.ERG apple D.Ind.ABS see aux.A3sE3s
 'Each kid saw an apple'
 √ distributive; * collective
 - b. *Umiek sagar bakoitza ikusi deu.
 kid.ERG apple each.D.ABS see aux.A3sE3s
 'The kid saw each apple'
 √ distributive; * collective
 - c. *Ume bakoitza etorri da. kid each.D.ABS come aux.A3s 'Each kid came' √ distributive; * collective

Example (10a) is grammatical because the universal quantifier *bakoitz* gets scope over a DP headed by an indefinite determiner, which constitutes a variable. Examples (10b-c), on the other hand, are ungrammatical because the universal quantifier does not take scope over any variable.

Hence, when *bakaoitz* and an existential quantifier appear in the same clause, *bakoitz* must be higher in the structure than the existential quantifier due to its wide scope requirement (11a-b). Otherwise, if it cannot c-command the existential quantifier, the sentence will turn ungrammatical (12a-b).

- (11) a. Pertsona bakoitzak txakur bategaz korridu deu.

 person each.ERG dog one.SOC run aux.A3sE3s

 'Each person has run with one dog'

 √ distributive; * collective
 - b. Andereño bakoitzak eskola bitan etzen deu biher.
 teacher each.ERG school two.INES do aux.A3sE3s work.ABS
 'Each teacher works in two schools'
 √ distributive; * collective
- (12) a. *Pertsona batek txakur bakoitzagaz korridu deu.

 person one.ERG dog each.SOC run aux.A3sE3s

 'One person has run with each dog'

 * distributive; * collective
 - b. *Andereño bik eskola bakoitzan etxen deu biher.
 teacher two.ERG school each.INES do aux.A3sE3s work
 'Two teachers work in each school'
 * distributive; * collective

³ The deeper element cannot be the event variable either.

In sentences (11a-b) the universal quantifier is getting scope over the existential quantifier causing a distributive interpretation. On the other contrary, as the ungrammaticality of examples (12a-b) show, the existential quantifier cannot be interpreted as being in a position higher than the one occupied by *bakoitz*.

The fact that the universal quantifier *bakoitz* 'each' must c-command the existential quantifier and not the other way around will be used as a tool to show reconstruction effects in Basque RCs. Let's consider the following sentences:

- a. [[Mutil bakoitzak e_i ekarri dauzen] sagar bidxekaz_i] ein boy each.ERG Ø.INS bring aux.A3SE3pl-C apple two.D.INSTR do dot pastela.
 aux.A3sE1s cake.D.ABS
 'I made the cake with the two apples that each kid brought'
 √ distributive; * collective
 - b. [[Neska bakoitzak ei sagarrak erosi dotsozen] lau girl each.ERG Ø.DAT apple.D.pl.ABS buy aux.A3sD3plE3pl-C four mutilerii] Euskadi gusteten jatzie.
 boy.D.DAT Euskadi like aux.A3plD3s
 'The four boys that each girl bought an apple for like Euskadi.' √ distributive; * collective
 - c. [[Pertsona bakoitzak e_i korridu ban] hiru txakurrekaz_i] person each.ERG Ø.SOC run aux.E3SA3S-C three dog.D.SOC etorri naz.
 come aux.A1s
 'I have come with the three dogs that each person ran with' √ distributive; * collective
 - d. [[Andereño bakoitzak ei biher etzen dauen] eskola teacher each.ERG work.ABS do aux.A3sE3s-C school bidxetani] egon da zuzendarixe.
 two.D.INES be aux.A3s head.D
 'The head has been in the two schools that each teacher works in' √ distributive; * collective

In the surface structure of these sentences (13a-d) the existential quantifier is in a position higher than the position of the universal quantifier *bakoitz* 'each'. However, this universal quantifier only allows wide scope and for that reading to arise, it has to c-command the existential quantifier. Thus, the grammaticality of (13a-d) can only be explained through reconstruction: the existential quantifier hosted by the DP Head of the RC must have been base-originated in a position that is under the scope of *bakoitz* 'each'.

2.2. Idioms

Further evidence in favor of reconstruction of the relative clause Head in Basque comes from idiom chunk interpretation. I will follow the general assumption that nominal parts of an idioms expression must be generated as the complement of the verb, and cannot be generated independently (Schachter

1973, Verngaud 1974), and that light verbs are prone to idiomaticization along with the main predicate (Butt 2004). By observing that this local relationship between the Head and the verb of the relative clause exists, I show that the Head underwent movement to its surface position instead of being base generated externally to the CP.

First, let's observe the following idioms (14a-d):

- (14) a. Umiek [latie emoten] doste.
 child.D.ERG can.D.ABS give aux.A3sD1sE3s
 'The child pesters me'
 (Lit: 'The child gives me the can')
 - b. Dantza etziek [paloa emoten] doste.
 dance.D do.ERG stick.D.ABS give aux.A3sE1sE3s
 'Dancing makes me feel ashamed'
 (Lit: 'Dancing gives me a stick')
 - c. Mutilek [notie emoten] deu. boy.ERG note.D.ABS give aux.A3sE3s 'The boy is making a spectacle of himself' (Lit: 'The boy gives a note')
 - d. Andereñoari [pelotie etsen] dotsazu.

 teacher.D.DAT ball.D.ABS do aux.A3sD3sE3s
 'You butter up the teacher'

 (Lit: 'You make the ball to the teacher')
 - e. Geur [piper ein] dozu eskolara.
 today pepper.ABS do aux.A3sE3s school.ELAT
 'Today you cut school'
 (Lit: 'Today you have done a peper to school')

For the idiom to be properly interpreted, a local structural relationship between the verb and the object is required as occurs in (14a-e). If the object is not generated in a local relationship with the verb but independently, the idiom expression will not be possible.

Under the Head External Analysis, the Head of the RC is base-generated independently outside the CP, while in the Head Raising Analysis this Head raises to its surface position from inside the embedded TP. Thus, it would be possible to relativize the nominal expression of the idioms in (14a-e) and maintain its idiomatic meaning if Basque followed the Head raising strategy since the needed local relationship would be preserved through the trace. Nevertheless, if the Head were base-generated in its surface position, such local relations would not exist, and therefore, there would be no idiomatic interpretation. Consider the following examples (15a-e):

(15) a. [[Umiek [e_i emoten] dosten] latie;] ez da child.ERG Ø.ABS give aux.A3sD1sE3s-C pester.D.ABS no be.A3s normala.

normal.D

'It is not normal how much the child annoys me'

(Lit: 'The can that the child gives me is not normal')

b. [[Dantza etsiek [e_i emoten] dotsun] paloak_i] harritxu dance do.ERG \varnothing .ABS give aux.A3sD1sE3s-C stick.D.ERG surprise ein doste.

do auxA3sD1sEs3

'The shame that causes you to dance has surprised me' (Lit: 'The stick that the dancing gives you has surprised me')

c. [[Mutilek [e_i emoten] dabilen] notiek_i] lotsie emoten boy.ERG Ø.ABS give aux.A3sE3s-C note.D.ERG shame.ABS give doste.
 aux.A3sD1sE3s
 'The spectacle the boy is making of himself embarrasses me'

'The spectacle the boy is making of himself embarrasses me' (Lit: The note that the boy is giving embarrases me')

d. [[Andereñoari [e_i etsen] dotsazun] pelotiek_i]
teacher.D.DAT Ø.ABS do aux.A3sD3sE2s-C ball.D.ERG
funtzionatzen dotsu.
work aux.A3sD2sE3s
'Buttering up the teacher seems to work for you'
(Lit: 'The ball that you make to the teacher works for you')

e. [[Eskolara [ei ein] dozun] piperraki] ez dotsu school.ELAT Ø.ABS do aux.A3sE2s-C pepper.D.ERG no aux.A3sD2sE3s notarako konteko grade.BEN count.fut 'The fact that you cut school will not affect your grade' (Lit: The pepper that you have done will not count for your grade')

In (15a-e), even though the nominal constituent of the idiom expression is the Head of the relative clause, the sentences still conserve their respective idiomatic expression. We must conclude from this that the idiom DP-Head of the RC has raised from the object position of the idiom verb.

2.3. Partial Conclusion

In this section two syntactic tests have provided evidence for the Head Raising Analysis (19) in Basque relative clause constructions:

$$(16) \quad \left[_{DP} \left[_{CP} DP_{i} \left[_{C} \left[_{TP} \dots t_{i} \dots \right] \right] \right] D \right]$$

First, the scope interaction test has shown that the Head nominal hosting an existential quantifier is interpreted as having narrow scope with respect to the

AGER GONDRA

universal quantifier *bakoitz* 'each' with the relative clause. Thus, a copy of the existential quantifier has to be in a position lower than the universal so that this last one can get scope over it.

Second, the idiomatic test has shown that the object of an idiom can occur as the Head of the RC that contains the other part of the idiom. Given that the parts of an idiom need to be generated as a single chunk, we must have concluded that the object has raised from within this unit.

3. (C)overt D

Bianchi (1999, 2000) argues that the Head of the RC raises to the Spec-CP position with an empty D. This empty D has to be licensed by the external D, which is a definite article. Moreover, the Head DP (D being empty) in the CP-peripheral position provides an NP that is necessary for the interpretation of the external D. That is, the relation between the external D and the DP Head in the Spec of the relative clause is double-edged: the external D licenses the internal empty D of the DP in the Spec of the relative CP, and it has an NP to be interpreted with.

I will show that this is also true for Basque RC by demonstrating that the definite article cannot have been base-generated inside the CP. The first argument that confirms this comes from idioms. Assuming that idioms form a chunk, if the Head raised with the definite article, then we would expect for the object of the idiom to co-occur with the definite article in its base-generated position. Consider (17a-d):

(17) a. [[[Geur e_i eskolara ein dozu]-n] piperragaitxi k_i] ez today Ø.ABS school.D.ELA do aux.A3sE2s-C pepper.D.MOT no dotsuie zigortuko aux.A3sD2sE3pl punish

'They won't punish you for the fact that you cut school'
Lit: 'They won't punish you for the fact that you did a pepper'

- b. Geur [piper ein] dozu eskolara. today pepper.ABS do aux.A3sE2s school.D.ELA 'Today you cut school' Lit: 'Today you did pepper'
- c. *Geur [piperra ein] dozu eskolara.

 today pepper.D.ABS do aux.A3sE2s school.D.ELA

 'Today you cut school'

 Lit: 'Today you did the pepper'
- d. *Geur [piperr bat ein] dozu eskolara.
 today pepper one.ABS do aux.A3sE2s school.D.ELA
 'Today you cut school'
 Lit: 'Today you did a pepper'

In (17a) *piperragaitzik* 'for the pepper' carries a definite article -a- 'the' between the noun *piper* 'pepper' and the postposition *gaitzik* 'for'. In (17b) the direct object *piper* 'pepper' inside the idiom chunk does not have a definite

article or any overt D, and the sentence is grammatical. In fact, if a definite article or any overt D is inserted in the idiom chunk, the sentence becomes ungrammatical (17c-d). Thus, as the definite article or an overt determiner is not allowed within an idiom unit, we must conclude that the overt definite article in (17a) was never inside the idiom chunk and that the Head of the RC raised with an empty D.

A second argument in favor of Bianchi's (1999, 2000) claim is based on the scope interaction. We have seen in the previous section that *bakoitz* 'each' requires a variable syntactically deeper in the structure over which to get scope, otherwise the sentence will result in ungrammaticality (Etxeberria 2001, 2002).

- a. Mutil bakoitzak hiru sagar jan deuz.
 boy each.ERG three apple.ABS eat aux.A3plE3s
 'Each kid ate three apples'
 √ distributive; * collective
 - b. Pertsona bakoitzak txakur bategaz korridu deu.
 person each.ERG dog one.SOC run aux.A3sE3s
 'Each person ran with one dog'
 √ distributive; * collective
- (19) a. *Mutil bakoitzak hiru sagarrak jan deuz.

 boy each.ERG three apple.D.ABS eat aux.A3plE3s

 *'Each kid ate the three apples'

 √ distributive; * collective
 - b. *Pertsona bakoitzak txakurregaz korridu deu.

 person each.ERG dog.D.SOC run aux.A3sE3s

 *'Each person ran with the dog'

 √ distributive; * collective
- (20) a. [[[Mutil bakoitzak e_i ekarri dauz]_{TP} -en] sagar bidxekaz_i] boy each.ERG ø.ABS bring aux.E3plA3s-C apple two.D.INS ein dot pastela do aux.A3sE1s cake.D.ABS 'I made the cake with the two apples that each kid brought' $\sqrt{\text{distributive}}$; * collective
 - b. [[[Pertsona bakoitzak e_i korridu baz]_{TP} -en] hiru person each.ERG ø.SOC run aux.pst.A3sE3s-C three txakurrekaz] etorri naz. dog.D.SOC come aux.A1s 'I came with the three dogs that each person ran with' $\sqrt{\text{distributive}}$; * collective

In (18a-b) bakoitzak can get scope over the existential quantifier, which is within an indefinite DP hiru sagar 'three apple' and txakur bategaz 'with one dog'. In (19a-b), on the other hand, the definite article in sagarrak 'the apples' and txakurregaz 'with the dog' blocks the distributive interpretation of bakoitzak 'each', producing ungrammaticality. In (20a-b) even though the

AGER GONDRA

existential quantifier is within a definitive Head *sagar bixekaz* 'with both apples' and *hiru txakurrekaz* 'with the three dogs' respectively, *bakoitzak* does get scope over it. Thus, the fact that the Head of the RC shows a definite article within it, and yet the universal quantifier *bakoitzak* 'each' can have a distributive interpretation indicates that this determiner did not raise with the Head.

Hence, the results obtained through idioms and the universal quantifier *bakoitz* 'each' confirm that the definite article was never inside the RC. Therefore, the external D is a definite article while the internal D is empty.

4. Agree: Case and φ-features valuing

According to Borsley (1977), the Head Raising Analysis presents a challenge for the Agree operation as morphologically rich languages prove that the Head of a RC shares the Case of the external D and not that of the internal D, which would not be expected if there were Head raising. Borsley uses the following sentence in Polish as an example:

(21) Widziałem [DP tego [CP [DP [NP pana_i] [DP który t_i]]_j [t_j zbił ci saw-1SG the-ACC man-ACC who-NOM broke your szybeø]]].
glass-ACC

'I saw the man who broke your glass.'

(Adapted from Borsley 1997: 635)

In (21) the NP *pana* 'man' receives its accusative Case from the higher D while its trace is in nominative agreement with the head D *ktory*. Borsley argues that this Case inconsistency would result into a Case clash. Nevertheless, having two different Cases, one in the trace and the other one in the head of a chain, does not cause a Case clash (Bejar and Massam 1999). In fact, Basque relative clause construction also presents this same Case phenomenon. The morphology of Basque shows that the Head of the RC has the Case value that the external D obtained from its Agree relation with a Probe in the matrix clause. This can be observed in sentences (22a-b):

- (22) a. [[e_i Sagarra erosi dauen] mutile_i] jeusi ein da.

 Ø. ERG apple.D.ABS buy aux.a3se3s-C boy.ABS fall do aux.A3s

 'The boy that bought the apple has fallen down'
 - b. [[Mutilek *e_i* erosi dauen] sagarrari_i] ipini dotsat boy.ERG Ø. **ABS** buy aux.A3SE3S-C apple.D.**DAT** put aux.A3sD3sE1s presidxue. price.D.ABS

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

In (22a-b), the Head *mutile* 'the boy' (absolutive) and *sagarrari* 'apple' (dative) respectively have not been spelled-out with the Case value obtained from a Probe within the embedded clause (ergative and absolutive, respectively) but with the one obtained from a Probe in the main clause (absolutive and dative, respectively).

Basque RCs with an adjunct gap also show that having different Cases in the head and the trace of a chain does not cause ungrammaticality. An adjunct gap is headed by a P that takes a DP as its complement and projects into a PP. For instance, in *mutilegaz* 'with the boy', the posposition -(e)gaz in *mutilegaz* constitutes a P that takes the attached D(P) as a complement: the -e- in -(e)gaz is the morphological realization of a D. Additionally, Basque RCs with an adjunct gap is only grammatical with a matching effect, which means that the morphological realization of the P in the gap and the P in the head of a chain match⁴ (Bhatt 1997). Now, let's observe the following sentence:

(23) *e_i* Kalera urten naben baloiegaz apurtu naben ø.SOC street.ALL leave aux.ps.E1sA3s-C ball.D.INS break aux.ps.E1sA3s bentanie. window.D

'I broke the window with the ball that I went out with'

In (23), the Case marking required by the P within the RC is sociative while the Case marking of the PP Head is instrumental, and the sentence is still grammatical. Hence, it is evident from (23) that having different Cases in the trace and the head of a chain does not cause the syntactic derivation to crash.

This claim is also supported crosslinguistically. Polish and Basque are not the only languages that use the Head raising strategy, and that the Head of the RC shows the Case associated with the Probe in the main clause. Some other instances are Spanish (Arregi 1998, 2000, Vicente 2004), French (Vergnaud 1974), Ancient Greek (Bianchi 2000), Middle High German (Pittner 1995) and Turkish (Meral 2004):

(24) a. Seguro que le aprobará con la pelota que le hace a la maestra⁵ (Spanish)

b. Je coupe le pain avec le couteau que tu m'as donné I cut the bread with the knife that you me.DAT gave 'I cut the bread with the knife that you gave me'

(French)

a. e_i Kalera urten naben baloiegaz apurtu naben
 ø.SOC street.ALL leave aux.ps.E1sA3s-C ball.D.INS break aux.ps.E1sA3s bentanie.
 window.D

'I broke the window with the ball that I went out with'

b. e_i Sagarra emon dotsaten *mutileri,/ *mutilegaz, korritzen Ø.DAT apple.D.ABS give aux.A3sD3sE1s-C boy.D.DAT/ boy.D.SOC run dot

aux.A3sE1s

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

⁴ As the morpheme to express sociative Case and instrumental Case are identical in Basque, a relative clause with a sociative gap and an instrumental Head is grammatical (a). However, as the morpheme to express dative Case and sociative Case are different in Basque, a relative clause with a dative gap and a sociative Head is ungrammatical (b).

⁵ The fact that the idiomatic reading *hacer la pelota* 'to butter up' is kept in (24) is an indication that Spanish follow the Head Raising Analysis as argued by Arregi (19908, 2000) and Vicente (2004).

AGER GONDRA

c. memneste toon horkoon hoon omomokate remember.IMP the.GEN oaths.GEN which.GEN swear.PFV.2 'Remember the oaths that you swore'

(Ancient Greek)

- d. Daz er [...] alles des verplac des im ze schaden that he all that.GEN abandoned which.GEN he.DAT to damage mohte komen might come
 'That he abandoned all the might cause damage to him'

 (Middle High German)
- e. Lama zürafayi iten kurdu isirsin llama giraffe.ACC push.SR wolf. ACC bite.OPT 'The llama should bite the wolf that pushes the giraffe'

(Turkish)

In (24a), the Head of the RC *la pelota* 'the ball' spelled out the (instrumental) Case assigned by the P in the main clause even if the v within the RC assigns (accusative) Case. The same happens in (24b), where the Head of the RC *le couteau* 'the knife' also spelled out the (instrumental) Case assigned by the P in the main clause if though the v within the RC assigns (accusative) Case. In (24c), the matrix verb *memneste* 'remember' assigns genitive, and the embedded verb *omomokate* 'swear' assigns accusative. But the relative pronoun surfaces as genitive *hoon* rather than accusative form *huus* (Bianchi 2000). In (24d), the matrix verb *verplac* 'abandon' assigns genitive, and the embedded verb *schaden* 'damage' assigns no special case to its subject, which would thus surface as nominative. But the relative pronoun surfaces as the genitive *des* rather than nominative *daz* (Pittner 1995). In (24e), the matrix verb *isir* 'bite' assigns accusative, and the embedded verb *it* 'push' assigns nominative. Nevertheless, the Head of the RC surfaces as accusative *kurdu* instead of nominative form *kurt* Meral (2004).

Hence, given that it is confirmed that having one Case in the trace and the other one in the head of the chain does not cause a Case clash, I propose that a DCase valued u-feature is *precarious* until it is sent to Spell-Out. As such, as long as the valued u-Case feature is not spelled out, it can be targeted by a c-commanding Probe (and thus, assigned a new value). In order to implement this idea, I propose the following condition:

(25) DCase *Precariousness* Condition
A DCase valued u-feature is *precarious* iff it is not spelled out.
A *precarious* feature is still visible for targeting by a Probe.

If my proposal is on the right track, we will expect to see a chain with multiple DCase values and the head of the chain undergoing spell out with the last Case value that obtained. As a matter of fact, evidence confirming my hypothesis comes from successive-cyclic movement. In addition, through the successive-cyclic movement I will show that ν Agrees with its Goal in the Spec-head configuration, contra Laka (2000), Řezáč (2008) and, Rezac, Albizu and Etxepare (2010), who assume that the Probe ν with unvalued φ -features scans its c-command domain for another closest instance of φ -features with

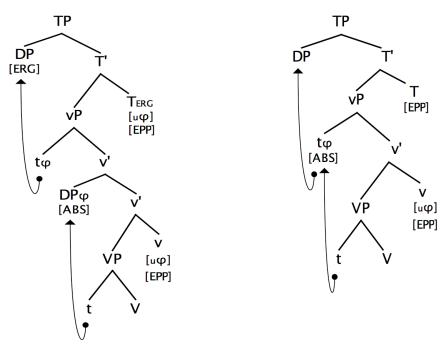
which to Agree. Before providing evidence to support the _DCase *Precariousness* condition, however, I will present the assumptions I follow in the rest of this paper.

4.1. Assumptions

In this paper I will accept the following assumptions for Basque. I follow that in Basque ergative Case and agreement reflect structural (Ortiz de Urbina 1989, Laka 1993a, 2000, 2006a, Artiagoitia 2001a,b, Albizu and Fernández 2006) rather than inherent Case (Oyharçabal 1992), and that the ergativity of Basque relies on its Case and agreement system coming from the T-system, which has an EPP requirement whose satisfaction confers subjecthood status (Laka 1993a, 2000, Bobaljik 1993, Řezáč 2008b). In transitive and unergative sentences ergative agreement occurs through Agree established by the Probe Terg with a Goal in its c-command domain, and ergative Case assignment takes place by Agree+Move to the Specifier position of T_{ERG}. In unaccusative sentences, on the other hand, there is a T with no ergative Case and with an EPP feature (Rezac, Albizu & Etxepare 2010). Furthermore, I accept that the Case/Agree source of absolutivity for both transitive objects and unaccusative subjects is v. I will argue that the licensing of the internal DP does not occur via Agree with the v Probe (Laka 2000, Řezáč 2008, Rezac, Albizu and Etxepare 2010), but under the Spec-head relationship with the v Probe. All this is represented in the syntactic trees (26a-b):

(26) a. Transitive and unergative⁶:

b. Unaccusative:



In transitive and unergative sentences (26a), the external argument first Agrees with T under c-command leading ergative agreement and then raises to the Specifier position of the T to satisfy the EPP feature of this last head. The

⁶ I follow Laka (1993a, 2000) in that unergatives have the same structure as transitives.

external argument obtains its u-Case feature valued and obtains subjecthood properties under this Spec-head relationship. The object raises to Spec-vP to enter into an Agree relation with v: the object gets its u-Case feature valued while the v gets its unvalued φ -features valued. In unaccusatives, on the other hand (26b), there is no ERG in T and the internal argument after Agreeing with v and getting its u-Case feature valued in the Spec-vP configuration raises to Spec-TP to satisfy the EPP of T, and consequently becomes the subject.

I will be using the theory of cyclicity and phases (Chomsky 2000, 2001) and consider CPs, vPs PPs and DPs to be phases (Abels 2012). Abels (2012) points out that phase heads are Probes that force movement of the phrase they select to the phase edge, which causes the moved phrase to escape to Phase impenetrability condition. Building on Chomsky's (2000) formulation of Phase impenetrability condition, Abels (2012) suggest the following reformulation:

(27) *Phase impenetrability condition*:

In phase α with head H, syntactic objects are not accessible to operations outside of α if and only if they are finally c-commanded by H.

Abels (2012:113)

Additionally, I assume that deletion of valued features takes place at the end of each phase (Chomsky 2000, 2001). Thus, the valued u-features within the c-command domain of the complement of a phase-head are deleted at the end of a phase projection (Abels 2012). Finally, I also assume, following Řezáč (2008), that an adjunct and an indirect object are PPs⁷, while a subject and a direct object are DPs.

To show that the DCase *Precariousness* Condition does not present a problem for these assumptions, I start out from the Agree/Case structure in simple sentences taking up Rezac, Albizu and Etxepare's (2010) following conclusion (28a-b):

(28) a. (EXPL/S_{ABS}) T [vP
$$\nu_{ABS}$$
 ... (S_{ABS}) ...] (Unacc: S low/high) b. A_{ERG} T_{ERG} [vP t_A ν_{ABS} ... O_{ABS} ...] (Trans)

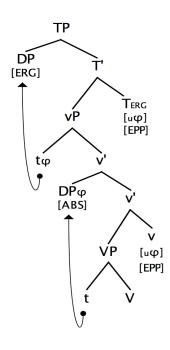
(Rezac, Albizu and Etxepare 2010:32)

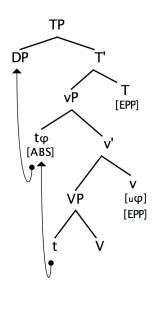
Applying Phase Theory into (28a-b), for transitive sentences and unergative sentences we will have the structure as in (29a), while for unaccusative sentences we will have the structure as in (29b):

⁷ Though dative-marked indirect objects are assumed to be PPs, this assumption does not necessarily carry over other dative-marked constituents.

(29) a. Transitive and unergative sentence

b. Unaccusative sentence





Consider the following examples in (30a-b) to illustrate the structure of (29a):

- (30) a. Jonek liburue erosi deu. Jon.ERG book.D.ABS buy aux.A3sE3s 'John has bought the book'
 - b. Jonek barre ein deu.

 Jon.ERG laugh.ABS do aux.A3sE3s

 'John has laughed'

 (Lit: 'John made laugh')

In a transitive sentence such as (30a) and in an unergative sentence such as (30b), the internal argument *liburue* 'the book' raises to the Spec-vP position, where it enters into an Agree relation with v and, therefore, it obtains absolutive Case. Then the external argument *Jonek* 'Jon' merges with v'. T_{ERG} searches for the closest Goal in its c-command domain and since the external argument *Jonek* is higher than the internal one *liburue*, it Agrees with the first argument leading ergative agreement. Afterward, *Jonek* raises to the Spec-TERG position to satisfy the EPP feature of the T-head and in this position it obtains an ergative Case value. This corresponds to a derivation up to TP, as in (29a), which constitutes a Phase; as such it is Spelled-Out and the DCase of both arguments being inside the spelled-out phase are deleted, not *precarious*, thus not subject to any further targeting, and as such they surface with their original case marking, ergative and absolutive, as expected. Following Laka (1993a, 2000), I assume that unergatives have the same structure as transitives. Thus, the same syntactic derivation occurs in (30b) for the single external argument.

Consider now an unaccusative sentence such as (31) to illustrate the structure (29b):

(31) Jon jeusi ein da.
Jon.ABS fall do aux.A3s
'John has fallen down'

In (31), the internal argument *John* 'John' raises to the Spec-vP position, where it enters into an Agree relation with v and, therefore, it obtains absolutive Case. Nevertheless, in an unaccusative structure, there is no ERG in T. Thus, this head does not Agree with the internal argument and when *Jon* raises to Spec-TP to satisfy the EPP of T, does not obtain an ergative Case value. As in the previous case, the TP constitutes a Phase and is spelled-out; the DCase values of the argument is deleted within that phase, they are not in a *precarious* state, thus, not subject to further targeting by any other c-commanding Target and as such the argument surface with the values obtained within the TP phase, as expected. Hence, we can conclude that the DCase *Precariousness* Condition doesn't wreak all sorts of havoc in simple sentences

4.2. Multiple Agree

The existence of successive-cyclic DP movement does not just constitute a theoretically based argument, but it is supported across languages by their morphology. Here I will present evidence from Irish (McCloskey 2002), Dinka (Richards and van Urk 2013) and Tagalog (Rackowski and Richards 2005) and then I will show how it relates to the Basque facts at hand here. First, in Irish, for instance, McCloskey (1990) argues that successive-cyclic Wh-movement is taken to be responsible for the morphological behavior of complementizers. The declarative complementizer is *go* 'that' as shown in (32a). This complementizer, however, gets phonetically realized as the particle *aL* in a long-distance A'-dependency (32b):

- (32) a. Creidim gu-r inis sé bréag believe.1.s GO.pst tell he lie 'I believe that he told a lie'
 - b. [[an t-ainm]_i [a hinnseadh dúinn] [a bhí t_i ar an áit]]] the name aL was told to us aL was on the place 'The name that we were told was on the place'

(McCloskey 2002:185)

The realization of the complementizer aL has been argued by Mc Closkey (2002) among others as a confirmation of the progress of a successive-cyclically moving operator.

Second, Richards and van Urk (2013) demonstrate that Dinka not only offers strong evidence that successive-cyclic movement does involve movement through intermediate Spec-CPs, but also through the edge of the *v*Ps. They show that the plural clitic *ke* is left behind in each Spec-*v*P by plural DPs along the path of movement. Consider the following example (33) in which *ke* has to be left behind in each Spec-*v*P, otherwise the sentences turns ungrammatical.

(33) Yèyîŋà ye *(ké) tàak [____ cíi Bôl *(ké) tíŋ]?
who.PL AUX.2SG PL think PRF Bol PL see
'Who all do you think Bol saw?'
(Richards and van Urk 2013:1)

Finally, Rackowski and Richards (2005) also argue that the morphology of Tagalog shows that extraction has to take place via the edge of vP, where verbal agreement takes place. This agreement is agreement for Case, thus, a Case bearing DP in Spec-vP will agree with the verb. The Agree relation that v enters into with the raised DP has a morphological consequence; the verb ends up carrying the Case of the DP. Consider the following sentences (34a-c):

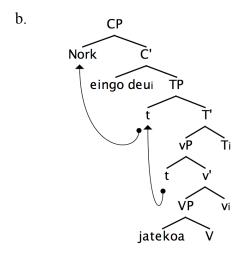
- (34) a. Sino [ang binigy-an ng lalaki ng bulaklak __]? who ANG gave-Dat CS man CS flower 'Who did the man give the flower to?'
 - b. *Sino [ang i-binigay ng lalaki ang bulaklak __]? who ANG Obl-gave CS man ANG flower 'Who did the man give the flower to?'
 - c. *Sino [ang nagbigay ang lalaki ng bulaklak __]?
 who ANG Nom-gave ANG man CS flower
 'Who did the man give the flower to?'
 (Rackowski and Richards 2005:35)

These examples (34a-c) show that DP-extraction imposes restrictions on the verb of the clause. In (34a), the verb *binigy-an* 'gave' carries the Case (dative) of *Sino* 'who', which has undergone movement to the edge of the ν P phase, while in (34b) *i-binigay* (Oblique Case) and in (34c) *nagbigay* (Nominative Case) do not. Thus, the grammaticality of (34a) and the ungrammaticality of (34b-c) indicate that the verb must agree with the raised DP, which happens when the DP and the ν enter into an Agree relation with each other in the Spec- ν P configuration (Rackowski and Richards 2005).

To sum up, the morphology of some languages such as Irish morphology, Dinka morphology and Tagalog morphology proves that cyclic-movement takes place through the edge of phases vP and CP. Irish morphology shows that movement occurs through the specifier position of C, while Dink and Tagalog morphology shows that it occurs through the edge of v.

After establishing that cyclic movement occurs through Spec- ν P and Spec-CP, I will show that in Basque a DP extracted out of an embedded clause enters into an Agree relation with a higher ν from which it obtains a Case value. Let's first consider a basic wh-question structure (35a) with its syntactic representation (35b).

(35) a. Nork eingo deu jatekoa? who.ERG do.FUT aux.3s3s food.D.ABS 'Who is going to cook?'



I follow the account of Wh-movement proposed by Ortiz de Urbina (1989): the Wh- moves to Spec-CP, and the verb+auxiliary move to the head of a head-initial CP. In this sentence (38a), *Nork* only stops in one Case-position, that is, in Spec-TP, where it gets its u-Case feature valued before it lands in the specifier position of C. When the CP is projected, the ergative Wh- is spelled out.

If a Wh- question is formed by extracting a DP out of a [-Q] embedded clause, the DP will have to take place through an intermediate Spec-CP and Spec-vP following successive-cyclicity. This is represented in example (36a-b):

```
(36)
          a.[_{CP}Nor_{i}[_{C'}] esan
                                    deu<sub>k</sub>[TP
                                                   Ainhoak t_k[v_P t^{"}_i]_{CP} t^{'}_i[C^*]_{C'} eingo
               who.ABS say
                                    aux.A3sE3s Ainhoa.ERG
                                                                                    do.FUT
               dauela<sub>i</sub> [<sub>TP</sub> t'<sub>i</sub> [<sub>vP</sub> t<sub>i</sub>
                                           jatekoa t_i[t_i]]]]]]?
               aux.A3sE3s-CØ.ERG food.D.ABS
          'Who did Ainhoa say is going to cook?'
          b.[CPNor_i]_{C'} esan deu_k[TP] aitak t_k[vP] t'''i[CP] t''i[CP] garbitsu
                who.ABS say aux.A3sE3s father.ERG
                                                                               clean
                            [TP t'_i]_{vP} t_i \text{ erropak } t_i[t_i]]]]]]?
             aux.A3plE3s-C Ø.ERG clothes.D.ABS
           'Who did dad say cleaned the clothes?'
```

In (36a-b), Nor 'who' originates within the embedded clause and raises to the embedded Spec-TP position where it got its u-Case feature valued $\langle ERG \rangle$ by the Probe T_{ERG} . As a result of this Agree operation, the DP Nor has an ergative Case value in the (t'_i) position. Case Theory predicts that once its u-Case is valued, the DP ceases to be a candidate for further Agree relations, that is, the DP will not Agree with any other Probe during its successive-cyclic movement. Nevertheless, notice that the DP in the higher Spec-CP has not spelled-out in the form of ergative (Nork), which will be expected based on mainstream assumptions about Case Theory, but in absolutive (Nor). Assuming that Case/Agree source of absolutivity is v, the DP has entered into an Agree relation with v during its cyclic-movement. Thus, a DP does not cease to be a candidate for further Agree relation once its u-Case feature is DCase valued (as

per the DCase *Precariousness* Condition), indeed yet it remains active for further Agree operation. The DCase valued u-feature in the DP is visible for further re-valuing by a Probe, given its *precarious* Case, and will spell-out with the last Case value that it obtains: absolutive in (36a-b), as the result of its final value Case set [u<ABS<ERG>>Case].

Cartens (2001) and Chomsky (1999, 2000) argue that multiple Agree is only possible under specific syntactic circumstances. First, Cartens (2001) proposes a return to the traditional view that certain heads are Case assigners, such that Agree deletes the Goal's Case, only if the Probe has an intrinsic structural Case value. Chomsky (1999, 2000) proposes that agreement deletes Case only if it is φ -complete. His claim is based on adjectives and past participles, which are φ -incomplete (they lack person) and therefore they agree only in a subset of the possible φ -features. As a result, they do not delete the Case of the DP they agree with allowing the DP to remain active for another Agree.

However, we can use the rich morphology of Basque to rule out Cartens (2001) and Chomsky's (1999, 2000) claim. In (36a-b), even though the trace (t'_i) is assigned structural Case, it still is susceptible of further Case assignment, contra Cartens. Chomsky's (1999, 2000) claim is also ruled out by (36a-b) since even though the lower verb has the full complement of ϕ -features, the DP still remains active as its absolutive Case shows.

Furthermore, example (36a-b) also shows that Basque is not consistent with Hale & Marantz's (1993) hypothesis that the most marked structural Case wins. Notice that even though *Nor* raises from an ergative position, it is spelled out with absolutive Case. Thus, the least marked structural Case wins over the most marked structural Case.

Assuming that a relationship exists between Case and agreement (Chomsky 1999, 2000), if a DP really continues being active, it will predict that in a long distance extraction not only the DP gets its u-Case valued but the ν also gets its ϕ -features valued. Indeed, this is proved by both the relative construction and Wh-question in the following sentences:

(37) a. $[CP t_i]_{vP} t_i [CP t_i]_{CP} t_i [CP t_i]_{CP} Neskiek t_i$ hartu dauz]-ela] aitsitsek girl.D.ERG Ø.ABS take aux.A3plE3s-C grandfather.ERG

esan] dauz]-en] sagarrak_i] gozoak dire. say aux.A3plE3s-C apple.D.pl.ABS delicious.D be.A3pl

'The apples that the grandfather said that the girl took are delicious'

b. $[CP Nortzuk_i]_{C'}$ esan $deuz_k]_{TP}$ Ainhoak $t_k]_{\nu P} t_i[CP t_i]_{C'}$ eingo who.ABS.pl say aux.A3plE3s Ainhoa.ERG do.FUT

 $\begin{array}{lll} dabiela_j \left[{_{TP}}\,t_i & \left[{_{vP}}\,t_i & jatekoa\;t_j \right]\,t_j \right] \right] \right] ? \\ aux.A3se3pl-C & \varnothing.ERG\;food.D.ABS \end{array}$

'Who did Ainhoa say is going to cook?'

c. $[CPZertzuk_i]_{C'}$ esan $deuz_k[TP]$ amak $t_k[vPt'''_i[CPt''_i[C'] garbitsu]$ who. ABS.pl say aux. A3plE3s mom. ERG clean

dabiela_j [TP mutil horrek_k [$_{vP}$ t_k [$_{v'}$ t'_i [$_{VP}$ t_i t_j] t_j]]]]]]]? aux.A3plE3pl-C boy those.ERG Ø.ABS. pl 'What did mom say those boys cleaned?'

In (37a), the Head of the RC sagarrak 'apples', which is in plural, has raised cyclically to the Specifier position of the highest CP. If the intermediate v Agreed with the lowest CP, the auxiliary verb of the relative clause (esan dauzen) would have absolutive third person singular agreement. However, the auxiliary dauz agrees with the Head as its plural number shows. This number agreement indicates that the Head sagarrak has Agreed with v during its cyclic-movement. The same can be concluded from the Wh- questions (37b-c). In (37b) the extracted DP Nortzuk 'who.pl' is the external argument of ein 'to do', while in (37c) the extracted DP Zertzuk 'what.pl' is the internal argument of garbitsu 'to clean'. In both sentences the auxiliary verb deuz would show absolutive third person singular agreement (deu) if it were agreeing with the lowest CP, yet instead it is agreeing with Nortzuk in (37b) and Zertzuk in (37c). Thus, v did not enter into an Agree relation with the lower CP but with the extracted DP.

Hence, Basque morphology demonstrates that a DP extracted out of an embedded clause enters into an Agree relation with a higher v during its cyclic-movement. This evidence confirms that a $_{\rm D}$ Case valued u-feature remains visible for further targeting if it is not spelled-out, and that when it does, the chain spells-out with the last value that it obtained, as the $_{\rm D}$ Case Precariousness Condition intends to capture. In (37b-c), the Wh- raises from the Spec-vP position to the Spec-CP position. The Wh- is not further targeted in this last position and thus it spells out with that final Case obtained from v as predicted by my condition.

Finally, evidence for the crosslinguistic validity of the DCase *Precariousness* Condition can also be traced back in Spanish, which uses the Head raising structure to construct relative clauses (Arregi 1998, 2000, Vicente 2004). As we have seen in example (24a), repeated here as (38), the DP Head of the RC shows the Case associated with the Probe in the main clause: the Head of the RC *la pelota* 'the ball' carries the (instrumental) Case assigned by the P in the main clause even if the v within the RC already assigned (accusative) Case to it.

(38) Seguro que le aprobará con la pelota que le hace a la maestra.

The DCase Precariousness Condition predicts that if the DCase valued ufeature is not targeted by a Probe, it will spell-out as is. This prediction is born out by RCs in a Topic position. Without going deeply into this, the DCase valued u-feature of the Head of a RC in Topic position is precarious for being on the edge of a phase. Since the RC is in a Topic position and this is a position where further targeting for Case does not take place, the Case value of the Head will not be added another Case value, and therefore, the Head will be spelled-out with the DCase value that it obtained within the embedded clause. Consider the following sentence in Spanish:

(39) [[La pelota]_i que le hace t_i a la maestra]_i, me molesta muchísimo t_i.

In example (39), *la pelota que le hace a la maestra* is topicalized. Since the whole RC is in a Topic position, and in this position the element in the higher Spec (*la pelota*) cannot be targeted by any Probe, the Head of the RC is spelledout with the Case feature that got valued within the embedded clause. Thus, we

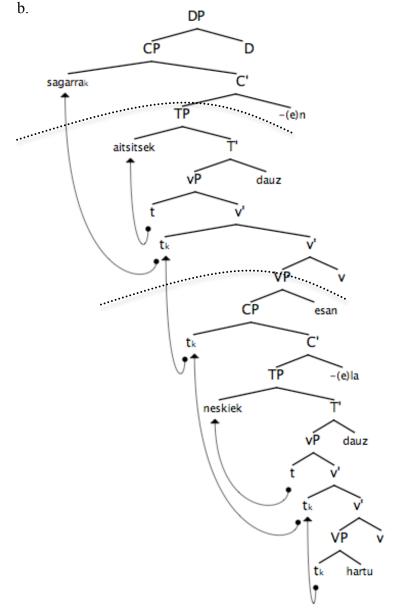
can establish that the _DCase *Precariousness* Condition is observed crosslinguistically.

4.3. Agree in the vP Spec-head configuration

As we have seen in the previous section, the DP extracted out of an embedded clause enters an Agree relation with a higher v at one point during its cyclic-movement. Under the Phase Impenetrability condition, there are only two possible positions in which the DP can enter into an Agree relation with the v: the specifier position of this head or the specifier position of the lower C. Consider the syntactic representation (40b) of the relative construction in sentence (40a):

(40) a. Neskiek e_i hartu dauzela aitsitsek esan dauzen girl.D.ERG Ø.ABS take aux.A3sE3pl-C grandfather.ERG say aux.A3sE3pl-C sagarrak_i apple.D.pl

'The apples that the grandfather said that the girl took'



AGER GONDRA

I assume for the sake of argument that there is no tucking-in below a thematic argument (McGinnis 1998, Chomsky 2001, Rackowski 2002), but that the moved element merges with v' before the external argument is originated. As the copy sagarrak 'apples' in the tree (40b) merges before the external argument position is projected, the copy ends up below the specifier in which the external argument is. I also accept that v has an EPP feature that allows it to attract other active phrases to its edge making them accessible for Agree by higher Probes (Rackowski and Richards 2005, Abels 2012, Richards and van Urk 2013). In (40b), v attracts sagarrak to its specifier position. Following the Phase Impenetrability Condition, the highest v does not have access to the complement of the lowest v. Thus, v and v and v in the lower Spec-CP position.

Laka (2000), Řezáč (2008), and Rezac, Albizu and Etxepare's (2010) assume that the Probe ν with unvalued φ -features scans its c-command domain for another closest instance of φ -features with which to Agree. If the Goal has a value, its value is assigned as the value of the Probe (Chomsky 2000, 2001b, Pesetsky and Torrego 2004). The definition of 'closest' is given in (41):

(41) A goal α is the closest one to a given probe if there is no distinct goal β such that for some X (X a head or maximal projection), X c-commands α but does not c-command β .

(Rackowski and Richards 2005: 21)

If Laka (2000), Řezáč (2008), and Rezac, Albizu and Etxepare's (2010) assumption were right, the specifier of the C is the position in which the extracted DP enters into Agree with the *v*-head. This predicts that in a sentence with an embedded clause a higher *v* Agrees in Case and φ-features with a DP that occupies the lower Spec-CP position. However, we can see in the following sentences featuing embedded [+Q] clauses (45a-d) that the main auxiliary verb (*deu*) does not agree (**deuz*) with the DP in Spec-CP (*Zeintzuk, nortzuk*).

- (42) a. Ziortzak galdetu deu [CP] zeintzuk $_i$ [CP] erosi dauzen $_j$ [CP] Ziortza.ERG ask aux.A3sE3s which ones buy aux.A3sE3pl-C Bitorrek [CP] Bitor.ERG Ø.ABS 'Ziortza has asked which ones Bitor bought'
 - b. *Ziortzak galdetu deuz [CP zeintzuki [C' erosi dauzenj [TP Ziortza.ERG ask aux.A3plE3s which ones buy aux.A3sE3pl Bitorrek ti tj]]]

 Bitor.ERG Ø.ABS
 - c. Andereñoak jakin gure deu [CP] nortzuk $_i$ [C] ein dabiedxen $_j$ teacher.D.ERG know want aux.A3 $_s$ E3 $_s$ who.pl.ERG do aux.A3 $_s$ E3 $_s$ Pl-C [TP] t_i biherrak t_k]]] \emptyset .ERG work.D.pl 'The teacher wants to know who did the homework'

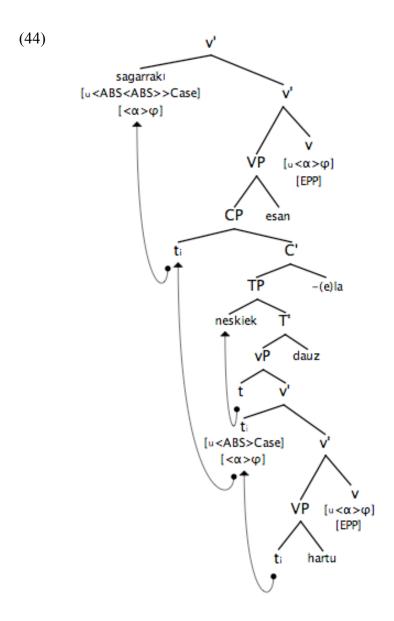
d. *Andereñoak jakin gure deuz $[CP nortzuk_i] C^{-}$ ein dabiedxen $_j CP t_i$ teacher.D.ERG know want aux.A3plE3s who.pl.ERG do aux.A3plE3pl-C Ø.E biherrak t_k]]] work.D.pl

In (42a&c) the auxiliary verb deu shows absolutive third person singular agreement, while in (42b&d) deuz shows absolutive third person plural agreement. In all of the examples, the Wh- in the Spec-CP position has absolutive third person plural features, thus if the v in the matrix clause Agreed with the DP in the Spec-CP position, the auxiliary verb would show absolutive third person plural agreement. However, the ungrammaticality of (42b&d) shows that this is not the case. The grammaticality of (42a&c) with 3^{rd} person singular agreement, on the other hand, indicates that the v in those sentences Agrees with CP.

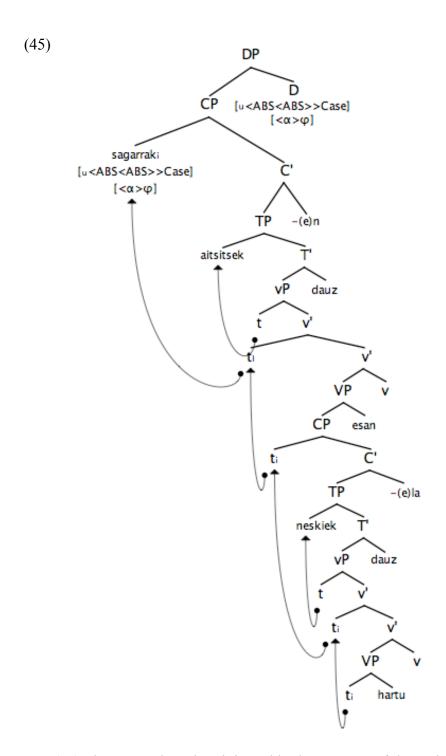
Ruling out the Spec-CP as the position in which the v-Probe establishes an Agree with the Goal in a long distance extraction, the Spec-vP is left as the only possible candidate. Hence, we must conclude that this is the position in which the v and the extracted DP enter into an Agree relation with each other. Consider the syntactic trees (44-46), which represent the structure construction of sentence (43):

(43) Neskiek e_i hartu dauzela aitsitsek esan dauzen girl.D.ERG Ø.ERG take aux.A3sE3pl-C granddad.ERG say aux.A3plE3s-C sagarrak_i hagine apurtu dostie apple.D.pl.ERG tooth.D.ABS break aux.3pl3s1s
'I broke my tooth with the apples that the grandfather said the girl took' lit: the apples that the grandfather said that girl took broke my tooth]

In (44), sagarrak raises to the intermediate Spec-vP position after it valued its u-Case feature ([u<ABS>Case]) by Agreeing with the lower v (hartu) and enters into an Agree relation with the intermediate v (esan). This Agree produces the valuing of the u- φ -features of v as shown in the auxiliary verb dauzen and the re-DCase valuing of the u-Case feature of the DP sagarrak ([u<ABS<ABS>>Case]).

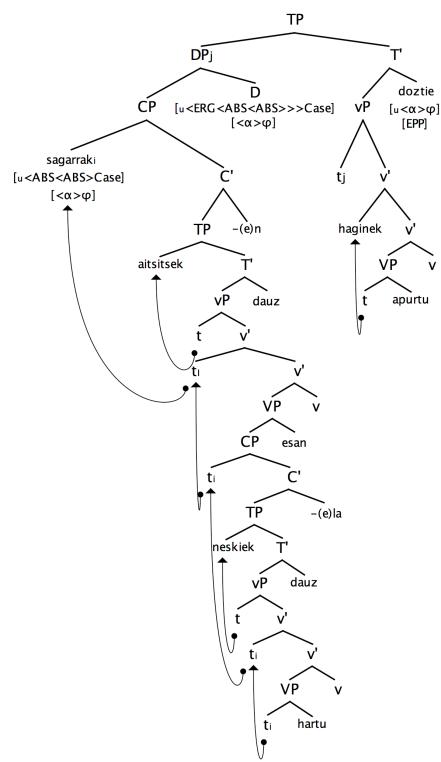


In (45), *sagarrak* raises to the edge of the CP-phase, a position in which the DCase valued u-feature remains *precarious* and therefore visible for further targeting. The external D copies the full feature matrix of the internal D to get its u-Case feature valued.



In (46), the external DP is originated in the Spec-vP of the main clause before it raises to the Spec-Terg position. Since the DCase valued u-feature ([u<ABS<ABS>>Case]) of the external D is still *precarious*, it is targeted by Terg. Thus, the external D obtains the [<Erg>Case] value from Terg resulting in ([u<Erg<ABS<ABS>>>Case]). Finally, this last Case value is spelled-out in the in the external D once the highest TP projects.





5. Conclusion

In this paper I have established the syntactic representation and derivation of relative clauses in Basque from a Minimalist approach. First I have shown that Basque RCs show the Head Raising Analysis and not the Head External Analysis. Thus, the CP of the RC is a complement to D and the head of the relative clause, base-generated inside the TP, moves to the Specifier position of the CP. Second, following Bianchi (1999, 2000), I have also shown that the

Head of the RC raises with an empty D, and therefore, the external D is an overt definite article.

Finally, contrary to Borsley's claim (1997), I have provided crosslinguistic evidence that demonstrates that having two different Cases, one in the trace and the other one in the head of a chain, does not cause a Case clash. In order to address this Case inconsistency, I have proposed the DCase Precariousness Condition. This condition states that a DCase valued u-feature is precarious until it is sent to Spell-Out and therefore, the value is visible for further targeting by a c-commanding Probe. The DCase Precariousness Condition has been supported by relative Clauses and Wh- questions with a long distance DP extraction. In these two syntactic structures, the extracted DP with a DCase valued u-feature enters into an Agree relation with a higher ν -Probe during its cyclic-movement. As a result of this Agree operation, which takes place in a Spec-head configuration, the DP gets its u-Case feature revalued while the ν gets its unvalued φ -features valued.

Ager Gondra SUNY-Purchase College 735 Anderson Hill Road Purchase, NY 10577 ager.gondra@purchase.edu

References

- Abels, K. 2003. *Successive cyclicity, anti-locality, and adposition stranding*. University of Connecticut-Storrs, University of Connecticut dissertation.
- Abels, K. 2012. *Phases*. Walter de Gruyter GmbH, Berlin/Boston. http://dx.doi.org/10.1515/9783110284225
- Albizu, P. 1997. Generalized Person-Case Constraint: A case for syntax-driven inflectional morphology. In M. Uribe-Etxebarria & A. Mendikoetxea (eds.), *Theoretical Issues on the Morphology-Syntax Interface.Supplements of Anuario del Seminario de Filología Vasca "Julio de Urquijo" 15]*. Donostia: Gipuzkoako Foru Aldundia/Euskal Herriko Unibertsitatea, pp. 1-19.
- Albizu, P. & L. Eguren. 2000. Ergative displacement in Basque. In W. U. Dressler (ed.), *Morphological analysis in comparison [Current Issues in Linguistic Theory 201]*. 1-25. Amsterdam, John Benjamins, pp. 1-25.
- Albizu, P. and B. Fernández. 2006. Licit and illicit ERG-DAT pairings. In B. Fernández & I. Laka (eds.), *Andolin gogoan*. Bilbao, UPV/EHU, pp. 69-96.
- Alexiadou, A., P. Law, A. Meinunger & C. Wilder. 2000. *The Syntax of Relative Clauses*. Amsterdam, John Benjamins.
- Aoun, J. E. & Y.-H. Audre Li. 2003. Essays on the Representational and Derivational Nature of Grammar: The Diversity of Wh- construction. Cambridge (Mass.), The MIT Press.
- Arregi, K. 1998. Spanish el que Relative Clauses and the Doubly Filled COMP Filter. Ms., MIT.
- Arregi, K. 2000. *Definite articles as relative operators*. Ms., M.I.T., Cambridge, Mass.

- Artiagoitia, X. 1992. Why Basque Doesn't Relativise Everything. In J. A. Lakarra & J. Ortiz de Urbina (eds.), *Syntax Theory and Basque Syntax*. San Sebastián, Diputación Foral de Gipuzkoa, pp. 11-35.
- Artiagoitia, X. 2001. Seemingly ergative and ergatively seeming. In J. Herschensohn, E. Mallén, and K. Zagona (eds.), *Features and interfaces in Romance: Essays in honor of Heles Contreras*. Amsterdam, John Benjamins, pp. 1-22. http://dx.doi.org/10.1075/cilt.222.02art
- Beghelli, F. & T. Stowell. 1997. Distributivity and Negation: The Syntax of Each and Every. In A. Szabolcsi (ed.), *Ways of Scope Taking*. Dordrecht, Kluwer, pp. 71-107.
- Béjar, S. & D. Massam. 1999. Multiple Case Checking. *Syntax* 2:2. http://dx.doi.org/10.1111/1467-9612.00015
- Béjar, S. 2003. *Phi-syntax: A theory of agreement*. Toronto, Ontario, University of Toronto dissertation,
- Béjar, S. 2004. Cyclic Agree. Paper presented in *GLOW 27*, Ms., University of Toronto and McGill University.
- Bhatt, R. 1997. Matching Effects and the Syntax-Morphology Interface: Evidence from Hindi Correlatives. *MIT Working Papers in Linguistics* 31, pp. 53-68
- Bianchi, V. 1999. *Consequences of Antisymmetry: Head Relative Clauses*. Mouton de Gruyter, Berlin. http://dx.doi.org/10.1515/9783110803372
- Bianchi, V. 2000. The Raising Analysis of Relative Clauses: A Reply to Borsely. *Linguistics Inquiry* 30, pp. 123-140. http://dx.doi.org/10.1162/002438900554316
- Bobaljik, J. D. 1993. Ergativity and ergative unergatives. *Papers on Case and agreement 2, MIT working papers in linguistics* 19, 45-88.
- Borsley, R. D. 1997. Relative Clauses and the Theory of Phrase Structure. *Linguistics Inquiry* 28, pp. 159-187.
- Bresnan, J. & J. Grimshaw. 1978. The Syntax of Free Relatives in English. *Linguistic Inquiry* 9, pp. 331-391.
- Butt, M. 2006. *Theories of Case*. Cambridge, Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139164696
- Caponigro, I. 2002. Free Relatives as DPs with a Silent D and a CP Complement. In V. Samiian (ed.), *Proceedings of WECOL 2000*, Fresno, California State University, pp. 140-150.
- Cartens, V. 2001. Multiple agreement and Case deletion: Against (φ-) incompleteness. *Syntax* 4, pp. 147-163. http://dx.doi.org/10.1111/1467-9612.00042
- Cartens, V. 2005. Agree and EPP in Bantu. *Natural Language and Linguistic Theory* 23, pp. 219-279. http://dx.doi.org/10.1007/s11049-004-0996-6
- Chomsky, N. 1995. *The Minimalist Program*. Cambridge (Mass), MIT Press.
- Chomsky, N. 1999. Derivation by phase. Ms., MIT.
- Chomsky, N. 2000. Minimalist inquiries: The framework. In R. Martin, D. Michaels, and J. Uriagereka (eds.), *Step by Step: Essays onMinimalist Syntax in Honor of Howard Lasnik*. Cambridge, MIT Press, pp. 89-159.
- Chomsky, N. 2001. Derivation by phase. In M. Kenstowicz (ed.), *Ken Hale: A life in Language*. Cambridge, MIT Press, pp. 1-52.
- Embick, D. & R. Noyer . 2001. Movement Operations after Syntax. *Linguistic Inquiry*32 (4), pp. 555–595. http://dx.doi.org/10.1162/002438901753373005

- Etxeberria, U. 2001. La Interpretación de Algunos Determinantes Cuantificacionales del Euskara. Ms., University of the Basque Country (EHU- UPV).
- Etxeberria, U. 2002. La Interpretación de los Cuantificadores del Euskara. *Interlingüística* XII, pp. 53-70.
- Etxeberria, U. 2005. *Quantification and Domain restriction in Basque*. UPV/EHU dissertation.
- Etxeberria, U. 2012. Quantification in Basque. In E. Keenan & D. Paperno (eds.), *Handbook of Quantifiers in Natural Languages*. Dordrecht, Springer, pp. 83-164.
- Fernández, B. & P. Albizu. 2000. Ergative displacement and the division of labour between syntax and morphology. In J. Boyle and A. Okrent (eds.), *Linguistic Society 36, volume 2: The Panels*. Chicago: Chicago Linguistic Society, 103-17.
- Fernández, B. 2001. Absolutibo komunztaduradun ergatiboak, absolutibo komunztaduradun datiboak: Ergatiboaren Lekualdatzetik Datiboaren Lekualdatzera. In B. Fernández and P. Albizu (eds.), *On Case and agreement*. Bilbo, EHUko Argitalpen Zerbitzua, pp. 147-165.
- Grimshaw, J. 1977. English Wh-Constructions and the Theory of Grammar. Amherst, UMass dissertation.
- Groos, A. & H. C. van Riemsdijk. 1979. Matching Effects in Free Relatives: A Parameter of Core Grammar. In A. Belletti et al. (eds.), *Theory of Markedness in a Generative Grammar: Proceedings of the IV GLOW Conference*. Pisa, Italy, pp. 171-216.
- Huhmarniemi, S. & P. BRATTICO. 2013. The structure of Finnish relative clause. *Finno-Ugric Languages and Linguistics* 2, pp. 53–88
- Izvorski, R. 1996. The syntax and semantics of correlative proforms. *In Proceedings of NELS* 29, pp. 133–148.
- Kayne, R. 1994. The Antisymmetry of Syntax. Cambridge, MIT Press.
- Laka, I. 1993a. The structure of inflection. In J. I. Hualde and J. O. de Urbina (eds.), *Generative studies in Basque linguistics*, ed. by, 21-70. Amsterdam: John Benjamins, pp. 21-70. http://dx.doi.org/10.1075/cilt.105.02lak
- Laka, I. 1993b. Unergatives that assign ergative, unaccusatives that assign accusative. *Papers on Case and agreement* 1, MIT Working Papers in Linguistics 18, pp. 149-172.
- Laka, I. 2000. Theta blind Case: Burzio's Generalisation and its image in the mirror. In E. Reuland (ed.), *Arguments and Case*. Amsterdam, John Benjamins, pp. 103-129.
- Laka, I. 2006a. Deriving split ergativity in the progressive. In A. Johns, D. Massam and J. Ndayiragije (eds.), *Ergativity: Emerging issues*. Dordrecht, Springer, pp. 173-196.
- Legate, J. A. 2005. Phases and cyclic agreement. In M. McGinnis and N. Richards (eds.), *Perspectives on phases (MIT Working Papers in Linguistics 49)*. Cambridge, MIT, pp. 147-156.
- McCreight, K. Y. 1988. *Multiple case assignments*. Cambridge, MIT dissertation.
- McCloskey, J. 2002. Resumption, successive cyclicity, and the locality of operations. In S.D. Epstein and T.D. Seely (eds.), *Derivation and*

- Explanation in the Minimalist Program. Oxford, Blackwell, pp. 184-226. http://dx.doi.org/10.1002/9780470755662.ch9
- McGinnis, M. 1998. Locality in A-movement. Cambridge, MIT dissertation.
- Meral, H. M. 2004. Resumptive Pronouns in Turkish. Unpublished master's thesis, Bogaziçi University, Istanbul, Turkey.
- Ortiz de Urbina, J. 1989. Parameters in the Grammar of Basque. Dordrecht, Foris.
- Oyharçabal, B. 1988. Operatzaile isila euskarazko perpaus erlatiboetan. Anuario del Seminario de Filología Vasca 'Julio de Urquijo' 22, pp. 93-97.
- Oyharçabal, B. 1992. Structural Case and inherent case marking: Ergaccusativity in Basque. In J. A. Lakarra and J. O. de Urbina (eds.), *Syntactic theory and Basque syntax*. Donostia, Gipuzkoako Diputazioa, pp. 309-342.
- Oyharçabal, B. 2000. A propos de l'ergativité: Le cas du basque. *Cérès* 120, pp. 237-259.
- Oyharçabal, B. 2003. Relative clauses. In J. I. Hualde and J. Ortiz de Urbina (eds.), *A Grammar of Basque*. Berlin, Mouton de Gruyter, pp. 762-823.
- Pesetsky, D. & E. Torrego. 2004. The syntax of valuation and the interpretability of features. In S. Karimi, V. Samiian, and W. K. Wilkins (eds.), *Phrasal and clausal architecture*. Amsterdam, John Benjamins, pp. 262-294.
- Pittner, K. 1995. The case of German relatives. *The Linguistic Review* 12, pp. 197-231.
- Rackowski, A. 2002. The Structure of Tagalog: Specificity, Voice, and the Distribution of Arguments. Cambridge, MA: MIT dissertation.
- Rackowski, A. & Norvin Richards. 2005. Phase edge and extraction: a Tagalog case study. *Linguistic Inquiry* 36 (4), pp. 565-599. http://dx.doi.org/10.1162/002438905774464368
- Rebuschi, G. 2003. Basque Semi-Free Relative Clauses and the Structure of DPs. *Lapurdum* 8, pp. 457-477. http://dx.doi.org/10.4000/lapurdum.1172
- Rezac, M. 2003. The fine structure of cyclic Agree. *Syntax* 6, pp. 156-82. http://dx.doi.org/10.1111/1467-9612.00059
- Řezáč, M. 2008. Phi-Agree and Theta-Related Case. In D. Harbour, D. Adger & S. Béjar (eds.), Phi Theory: Phi-Features across Modules and Interfaces. Oxford, Oxford University Press, pp. 83-129.
- Rezac, M., P. Albizu & R. Etxepare. 2011. The structural ergative of Basque and the theory of case. *Case at the interfaces, Brussels Conference on Generative Linguistics (BCGL)*.
- Richards, N. & C. van Urk. 2013. Dinka and the architecture of long-distance extraction. *GLOW* 36, Lund University.
- de Rijk, R. P. G. 1988. Basque Syntax and Universal Grammar. *II Euskal Mundu- Biltzarra*, ed. by Eusko Jaurlaritza. Gasteiz, Eusko Jaurlaritza, pp. 69-88.
- Ross, J. R. 1967. *Constraints on variables in syntax*. Cambridge, MIT dissertation.
- Srivastav, V. 1991. The Syntax and Semantics of Correlatives. *Natural Language and Linguistic Theory* 9, pp. 637–686. http://dx.doi.org/10.1007/BF00134752
- Ura, H. 1996. Multiple feature checking and grammatical function splitting.

- Cambridge, MIT dissertation.
- Vergnaud, J. 1974. French Relative Clauses. Cambridge, MIT dissertation.
- Vicente, L. 2002. *Prenominal Relatives in Basque and Antisymmetry*. Bilbao, Bizkaia: University of Deusto BA dissertation.
- Vicente, L. 2004. Inversion, reconstruction, and the structure of relative clauses. In J. Auger, J. C. Clements & B. Vance (Eds.), Contemporary Approaches to Romance Linguistics, Amsterdam, John Benjamins pp. 361-379. http://dx.doi.org/10.1075/cilt.258.19vic
- de Vries, M. 2002. *The syntax of relativization*. Amsterdam, Netherlands: University of Amsterdam dissertation.