



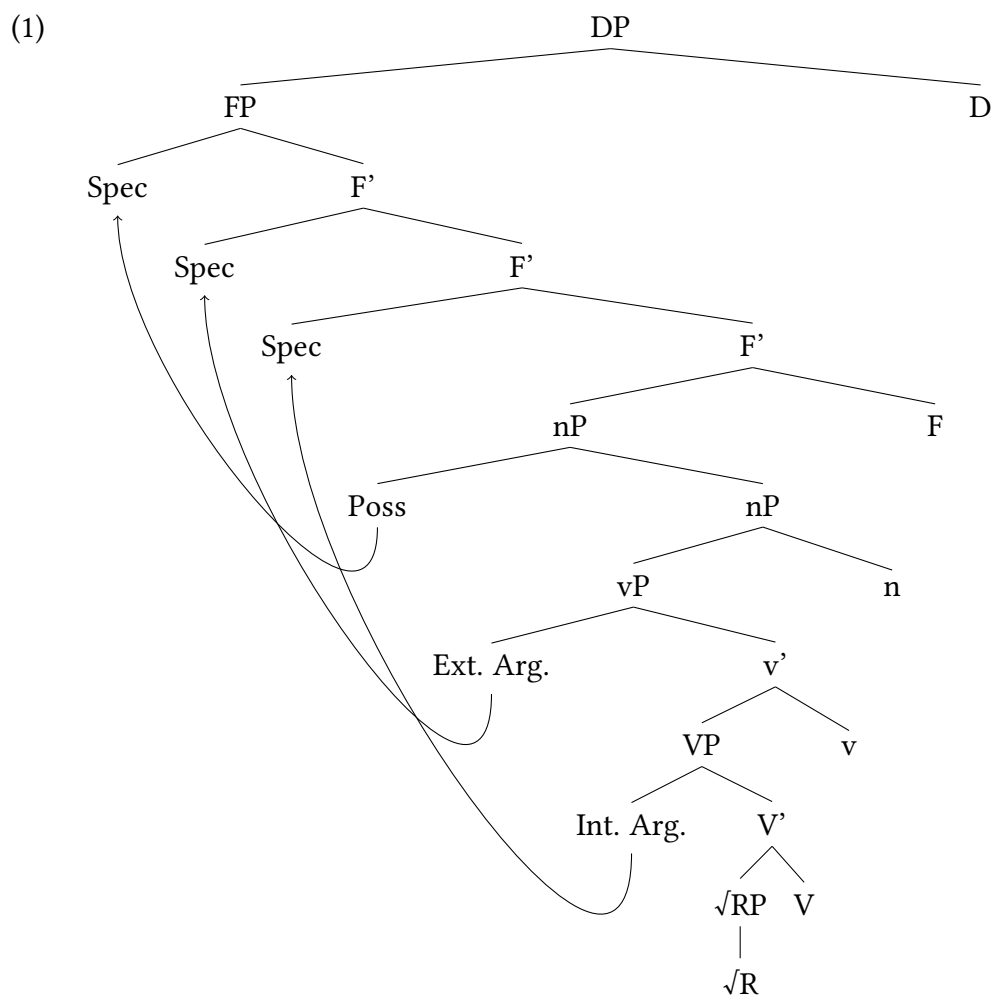
Different types of nouns, different types of projections

Ager Gondra

Abstract

This paper proposes (1) for Basque nominal domain. Expanding on the ideas of Distributed Morphology, all nouns are syntactically derived from a categorically unspecified root, which is nominalized by an *n*-head. With deverbal nouns, this unspecified root is first dominated by a series of structure-creating nodes (*V-v*). Event nouns take an external and an internal argument due to their argument structure, and have an event reading, while result nouns have the option to take an adjunct-external argument and an internal argument, and have a referential reading. Thus, event nouns project the *v* that introduces the event reading and the external argument, while result nouns project a defective *v** that has a non-active reading and does not introduce an external argument (Kratzer 1996). With common nouns, however, the \sqrt{RP} merges directly with the little *n*, making impossible for them to take arguments. Finally, with result nouns and common nouns, a possessor¹ is possible. Hence, two types of *n* are proposed: *n** introduces the possessor, while *n* does not. The possessor raises to the Spec-FP position along with the external and the internal argument.

¹The label *possessor* is given to any argument that has referential relation to the following nominal constituents: the kinship noun, nouns with inherent part-whole relations, and ordinary nouns.

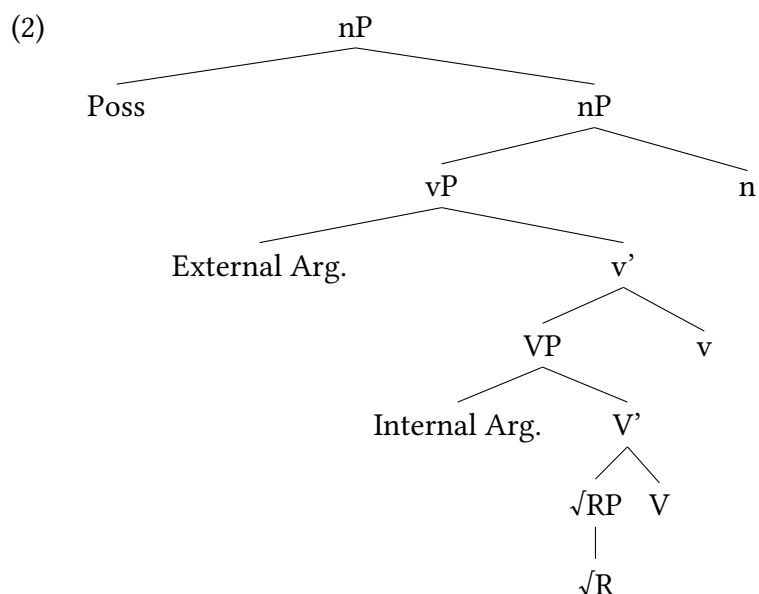


Keywords: Basque, syntax, nominal domain, deverbal nouns.

1 Introduction²

My hypothesis (1) is based on the proposals outlined in the Distributed Morphology (Marantz 1997), which includes the assumption that lexical categories do not have a specific categorical feature [+/-N] or [+/-V], but are originated as neutral roots and assigned a categorical feature by the syntactic structure. Thus, for the nominal structure, I propose the structure shown in (2).

²I gratefully acknowledge the help I obtained from Elena Benedicto, Karlos Arregi, Xabier Artiagoitia and Jon Ortiz de Urbina. All shortcomings are my own.



This syntactic structure is also based on the assumption that in some fundamental respects verbs and deverbal nouns seem to share argument properties. This idea was already presented by Chomsky (1970) with the following examples:

- (3) a. The enemy destroyed the city.
- b. The enemy's destruction of the city.

In (3a) we have the verb *destroyed* that takes two arguments: the agent *the enemy* and the theme *the city*. In (3b) there is not a verb, but a deverbal noun *destruction* that also takes the same arguments as the verb. These two examples may suggest that deverbal nouns show the same argument structure as verbs and, in fact, some researchers (e.g. Borer 1993, Hazout 1991) relate the verbal-like properties of deverbals to the presence of a verbal projection within the nominal structure. Under this assumption, the deverbal nouns are split into two subcategories (Grimshaw 1990); event nouns and result nouns (the eventive and referential reading). Examples of event nouns and result nouns are shown in (4a–c) and (4d–f) respectively (examples taken from Grimshaw 1990):

- (4) a. The *felling* of the trees.
- b. The *destroying* of the town.
- c. The *development* was applauded.
- d. The *expression* is desirable.
- e. This semester's *assignment* led to disaster.
- f. The *solution* to the problem simplified the assignment.

This paper is structured as follows. Section 2 will expand on the idea of verbal projections within the nominal structure. Section 3 will propose two types of n-heads. Section 4 will show that the possessor moves to the Spec-PossP position along with the external and the internal argument. Finally, section 5 will summarize the main points of this paper.

2 Verbal projections

Grimshaw (1990) shows some salient differences between the two types of deverbal nouns (event nouns and result nouns) that can be explained in terms of absence versus presence of argument structure. Event nouns contain an argument structure allowing them to take arguments, and have an eventive reading. Result nouns, on the other hand, lack an argument structure, therefore do not have to take arguments, and have a referential reading.

Grimshaw provides tests to identify event nouns and result nouns. Some of these tests will be applied to identify Basque event nouns and result nouns:³

- i. Result nouns can appear as predicates, whereas event nouns cannot.

- (5) a. *Hau Francoren Gernikaren *suntsiketa* da
 This Franco.GEN Gernika.REN destroying.D be.PRS.3S
 ‘This is Franco’s destroying of Gernika’
 b. Hau euskalkien sailkapena da
 This dialect.GEN classification.D be.PRS.3S
 ‘This is the classification of the dialects’

The ungrammaticality of (5a) indicates that *suntsiketa* is an event noun, while the grammaticality of (5b) reveals that *sailkapen* is a result noun.

- ii. Implicit argument control is possible with event nouns, but result nouns do not permit it.

- (6) a. Gernikaren suntsiketak euskaldunak *beldurtzeko* hiru ordu
 Town.GEN destroying.D.ERG Basque.D.PL frighten.to three hour
 iraun zuen
 last AUX.3S3S
 ‘The destroying of Gernika to frighten the Basques lasted three hours’

³See Artiagoitia (2000: 137–41) for similar data.

- b. *Euskalkien sailkapena euskaldunak goratzeko polita
 dialect.GEN classification.D Basque.D.PL praise.to pretty
 da
 be.PRS.3S
 ‘The classification of the dialects to praise the Basques is pretty’

Since *suntsiketa* in (6a) allows the implicit argument control *euskaldunak bel-durtzeko*, we know that it is an event noun. Conversely, as *sailkapen* in (6b) does not allow the implicit argument control, we also know that it is a result noun.

- iii. Event nominals do not pluralize, while result nominals do. Consider the following examples:

- (7) a. Francoren Gernikaren suntsiketak beldurgarriak izan
 Franco.GEN Gernika.GEN destroying.D.PL scary.D.PL be
 ziren
 AUX.PST.3PL
 ‘Franco’s destroyings of Gernika were scary’
 b. Hauek euskalkien sailkapenak dira
 These dialect.REN classification.D.PL be.PRS.1S
 ‘These are the classifications of the dialects’

The fact that when we pluralize *suntsiketa* ‘destroying’ turns into ungrammaticality indicates that *suntsiketa* in (7a) is an event noun. Nevertheless, *sailkapen* ‘classification’ can be pluralized in (7b), which shows that it is a result noun.

- iv. Event nouns only allow the definite articles (8a–b), while result nouns can also occur with the indefinite determiner (8c–d).

- (8) a. Francoren Gernikaren suntsiketa beldurgarria izan zen
 Franco.GEN Gernika.REN destroying.D scary.D be AUX.3S
 ‘Franco’s destroying of Gernika was scary’
 b. ?Francoren Gernikaren suntsiketa bat beldurgarria izan zen
 Franco.GEN Gernika.GEN destroying a scary.D be AUX.3S
 ‘Franco’s destroying of Gernika was scary’
 c. Hau euskalkien sailkapena da
 This dialect.GEN classification.D be.1S
 ‘This is the classification of the dialects’

- d. Hau euskalkien sailkapen *bat* da
This dialect.GEN classification a be.1s
'This is a classification of the dialects'

Suntsiketa does not allow the indefinite article (8b), while *sailkapena* does (8d). Thus, this evidence indicates that *suntsiketa* in (8a–b) is an event noun, and *sailkapen* in (8c–d) a result noun.

- v. Another test that can be applied is the use of temporal constituents such as 'three days' with deverbal nouns. An event noun may be referred by temporal constituents whereas a result noun cannot as examples (9a–b) show.

- (9) a. Francoren Gernikaren suntsiketak *hiru egun* irauten
Franco.GEN Gernika.GEN destroying.D.ERG three day last
zuen
AUX.PST.3S3S
'Franco's destroying of Gernika lasted three days'
- b. *Euskalkien sailkapenak *hiru egun* irauten zuen
dialect.GEN classification.D.ERG three day last AUX.PST.3S3S
'The classification of the dialects lasted three days'

Event nouns, due to their eventive reading, can have a temporal constituent referring to it. However, result nouns do not allow a temporal constituent since they lack this eventive reading. Thus, we conclude that *suntsiketa* 'destroying' in (9a) is an event noun, while *sailkapen* 'classification' in (9b) is a result noun.

The following tests that Grimshaw (1990) argues for the eventive/resultative distinction have been applied: (i) event nouns cannot appear as predicates, (ii) implicit argument control is not possible with result nouns, (iii) event nominals cannot be pluralized, (iv) event nouns cannot occur with the indefinite determiner and the numeral one, and (v) result nouns cannot be referred by temporal constituents such as *three days*. Based on their results, we can conclude that *suntsiketa* 'destroying' in the preceding examples is an event noun, while *sailkapen* 'classification' is a result noun.

Additionally, like verbs, event nouns have an argument structure that must be satisfied, while result nouns lack this argument structure. According to Grimshaw (1990), event nouns always need to take an external argument and an internal argument, whereas result nouns take them optionally. Hence, we would expect for *suntsiketa* 'destroying' to have an argument structure and, therefore, to take



an external and internal argument obligatorily, while for *sailkapen* ‘classification’ to lack this argument structure and, therefore, to take an external argument and an internal argument optionally.

Consider the following Basque examples with no little *pro*:

- (10) a. Francoren Gernikaren suntsiketak hiru egun iraun
Franco.GEN Gernika.GEN destroying.D.ERG three day last
zuen.
AUX.PST.3S3S
‘Franco’s destroying of Gernika lasted 3 days’
- b. *Suntsiketak hiru egun iraun zuen.
destroying.D.ERG three day last AUX.PST.3S3S
‘The destroying lasted 3 days’
- (11) a. Euskalkien sailkapena ikarragarritzkoa da
dialect.GEN classification.D tremendous.D be.3S.PRS
‘The classification of the dialects is tremendous’
- b. Sailkapena ikarragarritzkoa da
classification.D tremendous.D be.3S.PRS
‘The classification is tremendous’

The event noun *suntsiketa* in (10a) takes the internal argument *Gernikaren* in order to fulfill the argument structure requirement, because if it does not, the sentence is ruled out (10b). In (11c–d), however, we can see that it is optional for the result noun *sailkapen* ‘classification’ to take the internal argument *Euskalkien*. Assuming that arguments cannot appear as predicates with a copula since they would not be able to receive a thematic role from the head noun (Anderson 1983, Artiagoitia 2006), the following examples (12a–b) confirm that both *Gernikaren* in (10a) and *Euskalkien* ‘of the dialects’ in (11a) are the arguments of *suntsiketa* ‘destroying’ and *sailkapen* ‘classification’ respectively:

- (12) a. *Suntsiketa Gernikarena da
destroying.D.ERG Gernika.GEN.D be.PRS.3S
‘The destroying is of Gernika’
- b. *Sailkapena euskalkiena da
classification.D dialect.GEN.D be.PRS.3S
‘The classification is of the dialects’

Gernikaren ‘of Gernika’ in (12a) and *euskalkien* ‘of the dialects’ in (12b) appear as predicates with a copula and, therefore, they are not able to receive a thematic-role. The ungrammaticality of (12a–b) indicates that *Gernikaren* ‘of

Gernika’ and *Euskalkien* ‘of the dialects’ are arguments of *suntsiketa* ‘destroying’ and *sailkapen* ‘classification’ respectively. Thus, it can be concluded that *Gernikaren* in (10a) and *Euskalkien* ‘classification’ in (11a) are the internal arguments of *suntsiketa* ‘destroying’ and *euskalkien* ‘of the dialects’ respectively.

In regard to external arguments, Grimshaw (1990) argues that event nouns must always take the external argument while the result nouns take it optionally. This is illustrated in the following examples⁴ in Basque with no little *pro*:

- (13) a. **Gernikaren suntsiketak hiru egun iraun zuen*
 Gernika.GEN destroying.D.ERG three day last AUX.PST.3s3s
 ‘The destroying of Gernika lasted three days’
 b. *Euskalkien sailkapena ikarragarrikoa da*
 dialect.GEN classification.D tremendous.D be.3s.PRS
 ‘The classification of the dialects is tremendous’

Neither the event noun *suntsiketa* ‘destruction’ in (13a) nor the result noun *sailkapen* ‘classification’ in (13b) takes an external argument. However, the ungrammaticality of (13a) in contrast with the grammaticality of (13b) show that event nouns have to take an external argument, while result nouns do not have to.

In fact, for Grimshaw (1990) the only true external argument is the event argument that event nominals take. The external argument that result nouns take, on the contrary, is an adjunct-argument, which appears either as a by-phrase or as a possessor. Let’s contemplate the Basque sentences (14a–b):

- (14) a. *Francoren Gernikaren suntsiketak hiru egun iraun zuen*
 Franco.GEN Gernika.GEN destroying.D.ERG three day last
 AUX.PST.3s3s
 ‘Franco’s destroying of Gernika lasted three days’
 b. *Bonaparteren euskalkien sailkapena ikarragarrikoa da*
 Bonaparte.GEN dialect.GEN classification.D tremendous.D be.3s.PRS
 ‘The classification of the dialects by Bonaparte is tremendous’

Following Grimshaw (1990), in (14a) the event noun *suntsiketa* takes the event argument *Francoren* ‘Franco’s’ whereas in (14b) the result noun *sailkapen* ‘classification’ takes the adjunct-argument *euskalkien* ‘of the dialects’. Yet how do we know that *Francoren* in (14a) and *Bonaparteren* in (14b) are different? If event nouns take a true external argument, while result nouns take an external adjunct-argument, we will expect to be impossible for the external argument of event nouns

⁴Both subject and object genitives, as well as regular possessors, are isomorphic and equally prenominal Artiagoitia (2012b).

to appear in a predicate position, but possible for the external argument of result nouns. In fact, this is true as examples (15a–b) show:

- (15) a. *Gernikaren suntsiketa Francorena da
Gernika.GEN destroying.D. Franco.GEN.A be.PRS.3S3S
‘The destroying of Gernika is Franco’s’
b. Euskalkien sailkapena Bonaparterena da
dialect.GEN classification.D Bonaparte.GEN.A be.3S.PRS
‘The classification of the dialects is Bonaparte’s’

The ungrammaticality of (15a) proves that *Francorena* is a true argument of *suntsiketa* ‘destroying’. On the other hand, the ungrammaticality of (15b) indicates that *Bonaparterena* is not a true argument of *sailkapena* ‘classification’, therefore, it is an adjunct-argument.

In summation, Basque event nouns have to take an internal and an event argument in order to fulfill their argument structure. Basque result nouns, on the contrary, do not have an argument structure so they are not required to take arguments. When they do, however, they take an internal argument, and an external adjunct-argument. Hence, given that deverbal nouns show these verbal-like properties, this section will argue for a VP and vP projection within the nominal constituent of such nouns.

2.1 VP projection

As it has been shown in (10a–b, 11a–b), repeated here as (16a–b, 17a–b), event nouns must take an internal argument, while result nouns do not have to.

- (16) a. Francoren Gernikaren suntsiketak hiru egun iraun zuen
Franco.GEN Gernika.GEN destroying.D three day last AUX.PST.3S3S
‘Franco’s destroying of Gernika lasted 3 days’
b. Francoren suntsiketak hiru egun iraun zuen
Franco.GEN Gernika.GEN destroying.D three day last AUX.PST.3S3S
‘Franco’s destroying of Gernika lasted 3 days’
(17) a. Euskalkien sailkapena ikarragarritzkoa da
dialect.GEN classification.D tremendous.D be.3S.PRS
‘The classification of the dialects is tremendous’
b. Sailkapena ikarragarritzkoa da
dialect.GEN classification.D tremendous.D be.3S.PRS
‘The classification is tremendous’

It has been suggested that the internal argument is originated inside the root phrase ($\sqrt{\text{RP}}$) and assigned the thematic role by the root-head (Alexiadou 2001,

Picallo 1991). If this were true, assuming that all nouns are syntactically derived from a categorically unspecified root, which is nominalized by an n-head, nothing would prevent common nouns to take an internal argument too. However, this is not possible as the following examples (18a–b) show:

- (18) a. *Gernikaren ura hotza da
Gernika.GEN water.D cold.D be.PRS.3S
'The water of Gernika is cold'
- b. *Euskalkien aulkia polita da
dialect.D.GEN chair.D beautiful be.PRS.3S
'The chair of the dialects is pretty'

In (18a) the common noun *ur* 'water' takes *Gernikaren* 'of Gernika' as its internal argument causing the sentence to be ungrammatical. In (18b), the common noun *aulki* 'chair' takes *Euskalkien* 'of the dialects' as its internal argument also causing the sentence to be ungrammatical. We confirm that *Gernikaren* 'of Gernika' and *aulki* 'chair' in (18a–b) are arguments of *ur* 'water' and *aulki* 'chair' respectively by showing that they are not allowed as predicates with a copula (19a–b):

- (19) a. *Ura Gernikaren da
water.D Gernika.GEN be.PRS.3S
'The water is of Gernika'
- b. *Aulkia euskalkiena da
chair.D dialect.D.GEN be.PRS.3S
'The chair is of the dialects'

Given that *Gernikaren* 'of Gernika' in (19a) and *euskalkien* 'of the dialects' in (19b) appear as predicates with a copula, they are not able to receive a thematic-role. The ungrammaticality of these examples confirms that *Gernikaren* 'of Gernika' is an argument of *ura* 'water' and that so is *euskalkien* 'of the dialects' of *aulkia* 'chair' in (19a–b). Thus, *Gernikaren* in (18a) and *Euskalkien* 'classification' in (18b) are in fact the internal arguments.

I claim that the internal argument cannot be originated inside the root phrase (\sqrt{RP}) and assigned the thematic role by the root-head. Yet, I propose that the internal argument is originated in the Specifier position of VP, which allows event nouns and result nouns to take an internal argument. Hence, under the standard assumption that adverbs modify VPs and not NPs (Jackendoff 1997), we would expect for adverbs to appear with deverbals. Consider the following examples, one with an aspectual adverb (20a) and another with a manner adverb (20b).



- (20) a. *Francoren Gernikaren *bonba bidezko* suntsiketa
Franco.GEN Gernika.GEN bomb through destroying.D
'Franco's destroying of Gernika through bombs'
- b. *Francoren Gernikaren *eguneroko* suntsiketa
Franco.GEN Gernika.GEN daily destroying.D
Franco's daily destroying of Gernika

The ungrammaticality of (20a–b) may suggest that a verbal projection is absent from deverbal nouns. Nevertheless, as noted by Alexiadou (2001), adverbs can appear in Greek nominalizations with event nouns.

- (21) i *katastrofi ton stihion olosheros* (mas kateplikse)
the destruction the evidence-GEN completely us shocked
(Alexiadou 2001: 46)

(21) contains the adverb *olosheros* 'completely' modifying the deverbal *katastrofi* 'destruction'. The fact that the sentence is grammatical shows that there is a verbal projection within this nominal constituent. However, Alexiadou (2001) also argues that in Greek manner (22a) and aspectual adverbs (22b) are acceptable, whereas modal (22c) and speaker-oriented ones (22d) are not.

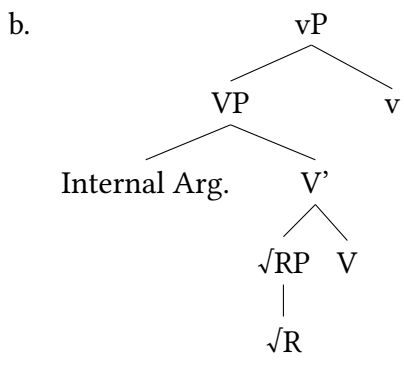
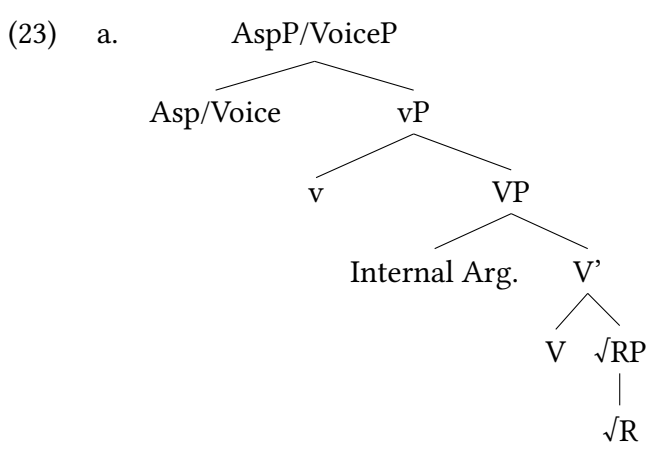
- (22) a. i *katastrofi ton eghrafon toso prosektika*
the destruction the documents-GEN that carefully
- b. i *katastrofi ton eghrafon kathimerina*
the destruction the documents-GEN daily
- c. *i *katastrofi ton stixion pithanos*
the destruction the evidence-GEN possibly
- d. *i *katastrofi ton stixion ilikrina*
the destruction the evidence-GEN frankly

(Alexiadou 2001: 47)

Alexiadou (2001) explains that this variation is related to the hypothesis that claims that adverbial phrases are related to specialized function projections (Alexiadou 1997, Cinque 1999). According this hypothesis, aspectual adverbs and manner adverbs are linked to Aspect Phrase and Voice Phrase respectively and these two Phrases are in a lower projection than the modal and speaker-oriented adverbs. Thus, she argues that the incompatibility of modal and speaker-oriented adverbs (22c–d) indicates that low verbal projection is present within Greek deverbal



nouns (23a). Following this line of argumentation, I suggest that the incompatibility of manner and aspectual adverbs with Basque deverbals (20a–b) indicates that the verbal projection in Basque is even lower than in Greek (23a). In the following section I will claim that Basque deverbal nouns present the verbal projection (23b):



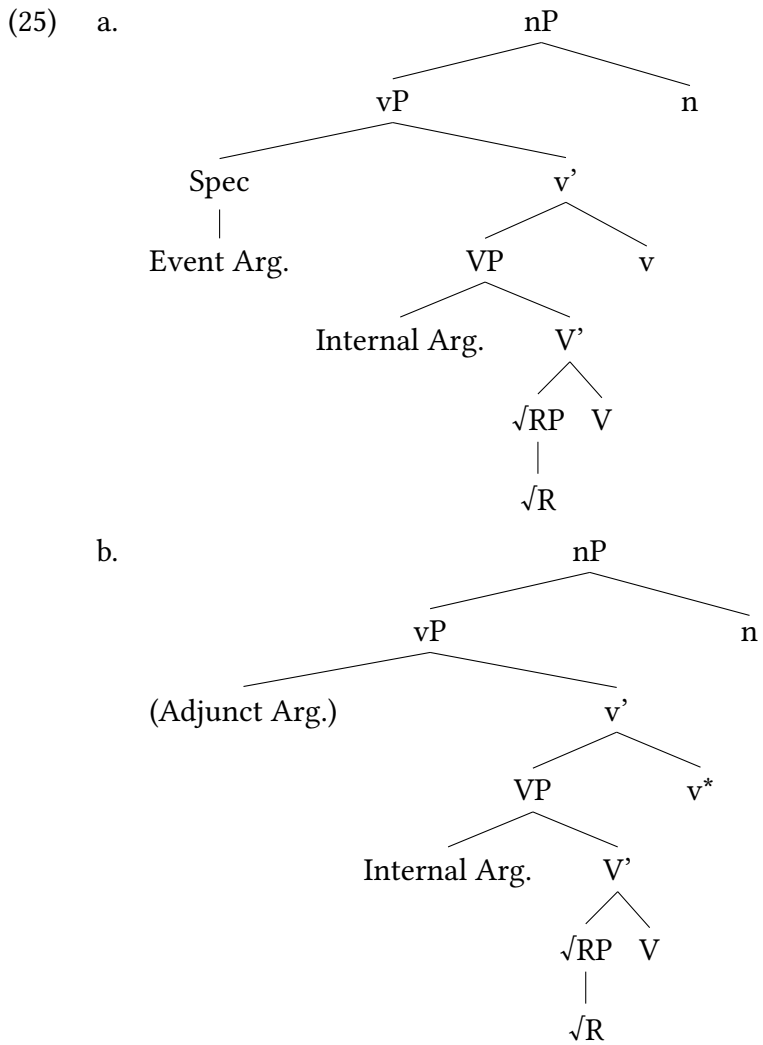
2.2 vP projection

As it has already been demonstrated, one difference between an event noun and a result noun is that the former takes an external event-argument and has an event reading, whereas a result noun has the option to take an external adjunct-argument and has a referential reading. Consider one sentence with an event noun (24a) and another sentence with a result noun (24b):

- (24) a. Francoren Gernikaren suntsiketak hiru egun iraun
 Franco.GEN Gernika.GEN destroying.D.ERG three day last
 zuen
 AUX.PST.3S3S
 ‘Franco’s destroying of Gernika lasted three days’

- b. Bonaparteren Euskalkien sailkapena ikarragarrikoa da
 Bonaparte.GEN dialect.GEN classification.D tremendous.D be.3s.PRS
 ‘The classification of the dialects by Bonaparte is tremendous’

This difference suggests that event nouns project a *v* that introduces the event reading and the event argument, while result nouns project a *v** that has a non-active reading and does not introduce an external argument. Furthermore, given that *v** can get an external argument incorporated through a preposition (Kratzer 1996), result nouns have the option of taking an external adjunct-argument. In conclusion, event nouns will project the syntactic structure shown in (25a), and result nouns the one shown in (25b):



Based on Burzio’s generalization (1986), it is widely accepted that the *v* that introduces the external argument assigns Case to the internal argument. There-

fore, we would expect the internal argument in Basque to be in absolutive since Case/Agree source of absolutive is v (Laka 2000, Rezac 2008, Rezac et al. 2011). Let's consider the following contrastive examples:

- (26) a. *Francoren Gernika suntsiketa
 Franco.GEN Gernika.ABS destroying.D
 'Franco's destroying of Gernika'
 b. Francoren Gernikaren suntsiketa
 Franco.GEN Gernika.GEN destroying.D
 'Franco's destroying of Gernika'

An internal argument in absolutive makes the sentence ungrammatical (26a), while an internal argument in genitive makes it grammatical (26b). This fact may be possible evidence against the existence of a vP in event nouns. Nevertheless, this paper follows Keskin (2009) to maintain the claim of a vP projection.

Assuming Chomsky's (2005) proposal that the φ -features that T uses to agree with the subject are not inherent to T but are derivative from C, Keskin proposes in the case of deverbal nouns the φ -features in v are derivative from D. That is, Case assignment to objects in the event nouns is attributed to D, and not to v. Keskin demonstrates that Case in event nouns correlates with subject agreement morphology. To do so, he provides examples of Turkish (27a), in which the event noun shows agreement with the possessor, and Korean (27b–c) and Japanese (27d–e), in which that agreement does not exist.

- (27) a. Siz-in Rohan-ı istila-nız
 2PL-GEN Rohan-ACC invasion-2PL
 'your invasion of Rohan'
 b. John-uy yenge-uy kongpu
 John-GEN English-GEN study
 'John's study of English'
 c. *John-uy yenge-lul kongpu
 John-GEN English-ACC study
 lit. 'John's study English'
 d. Gun-no sono machi-no hakai
 army-GEN that city-GEN destruction
 'the army's the destruction of that city'
 e. *Gun-no sono machi-o hakai
 army-GEN that city-ACC destruction
 lit. 'the army's the destruction that city' (Keskin 2009: 139–140)

In (27a), in the presence of a subject (external argument) *sizin* ‘your’, the event noun *istila* ‘invasion’ is marked with a subject agreement affix *-niz*, and, furthermore, the internal argument *Rohan-ı* ‘Rohan’ is in accusative case. In (27b–e), on the contrary, the event noun does not show agreement with the external argument, and the internal argument cannot be in accusative case (27c, e), but has to be in genitive (27b, d).

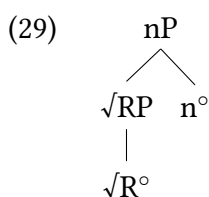
These crosslinguistic examples suggest that when subject agreement morphology (i.e. φ -features instantiating in D) is not present in the event nouns, accusative case assignment to the object is barred, which indicates that v depends on these φ -features in order to assign Case. In the case of Basque, since event nouns do not show agreement with the external argument, and the internal argument cannot be in accusative case (26a), but has to be in genitive (26b), we conclude that the subject agreement morphology (i.e. φ -features instantiating in D) is not present in event nouns, and therefore, v cannot assign Case.

2.3 Lack of verbal projections

With respect to common nouns, they do not have an argument structure making them impossible neither to take an internal argument (28a)⁵, nor an external argument (28b)⁶.

- (28) a. *Euskal literaturaren aulkia polita da
 Basque literature.D.REN chair.D beautiful be.PRS.3S
 ‘The chair of Basque Literature is pretty’
 b. *Arotzaren aulkia polita da
 Carpenter.D.REN chair.D beautiful be.PRS.3S
 ‘Carpenter’s chair is pretty’

Therefore, assuming that the arguments are originated and assigned thematic roles in the verbal projections (vP and VP), I claim that common nouns show the following structure:



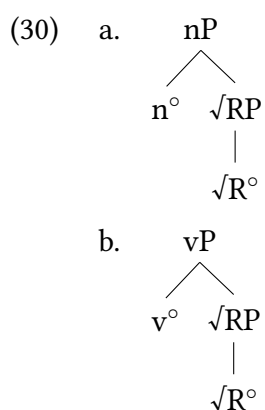
⁵This sentence is grammatical if *Euskal literaturaren* ‘of Basque literature’ is interpreted as possessive. For instance, imagine we organize a discussion with the representatives of Iberian literature (Galician, Catalan, Spanish, Portuguese and Basque) and each of them has to sit down on a chair. In this context we can understand as ‘the chair that Basque literature happen to get’.

⁶(28b) is grammatical under the interpretation of *Arotzaren* ‘Carpenter’s’ being the owner of the chair.

All nominal syntactic constructions, event nouns (25a), result nouns (25b) and common nouns (29), project an nP. The following section will discuss the syntactic properties of this layer.

3 (n)oun-phrase

This paper assumes the Distributed Morphology framework (Marantz 1997) in that nouns are syntactically derived and show an internal structure as the one of sentences. Under the framework of Distributed Morphology, lexical categories do not have a specific categorial feature [+/-N] or [+/-V], but the roots are interpreted as neutral. The roots are assigned a categorial feature by the syntactic structure, that is, the root is governed by a functional head that will determine the lexical category. The lexical category will manifest as a noun when the root is governed by a nominal functional head (30a) or a verb when the root is governed by a verbal functional head (30b).



The following subsections will address the two syntactic functions that the n-head has. The first one will deal with nominalization, while the second will discuss which are the properties of the n-head that allows or blocks it to introduce a possessor.

3.1 n-head assigns [+N]

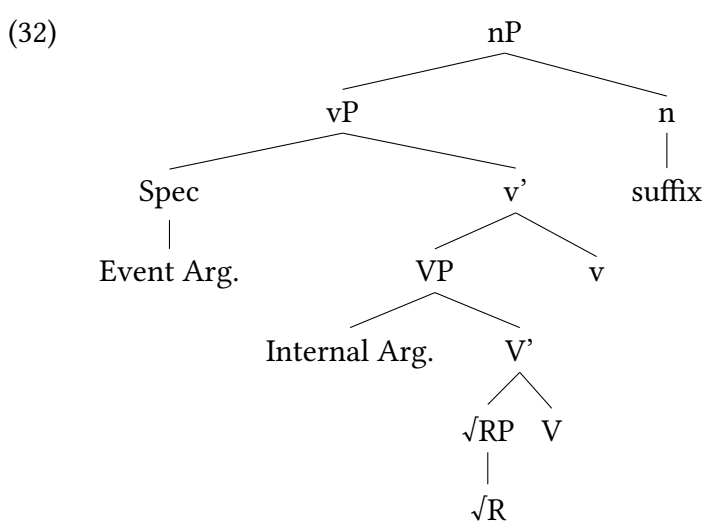
The event nouns' and result nouns' roots are neuter in position until they enter into relation with a higher functional head resulting in a nominalization. Marantz (1997) argues that the head responsible for assigning [+N] lexical category to the root is n.

In Basque there is a long list of deverbal nouns that are derived from the root adding a nominalizer suffix. In the following examples (31) we can see some roots and their corresponding deverbal nouns after the suffix incorporation:

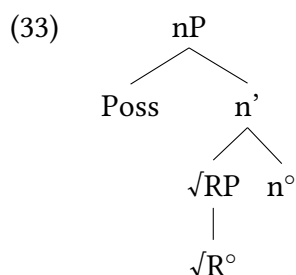


(31)	Root	Deverbal noun + D
	<i>suntsi</i> ‘destroy’	<i>suntsiketa</i> ‘the destruction’
	<i>azter</i> ‘examine’	<i>azterketa</i> ‘the examination’
	<i>irakur</i> ‘read’	<i>irakurketa</i> ‘the reading’
	<i>ebalua</i> ‘evaluate’	<i>ebaluaketa</i> ‘the evaluation’
	<i>garbi</i> ‘clean’	<i>garbiketa</i> ‘the cleaning’
	<i>konpon</i> ‘fix’	<i>konponketa</i> ‘the fixing’
	<i>gomendio</i> ‘advice’	<i>gomendio</i> ‘the advice’
	<i>sor</i> ‘create’	<i>sorkuntza</i> ‘the creation’
	<i>eraiki</i> ‘build’	<i>eraikuntza</i> ‘the building’
	<i>ager</i> ‘appear’	<i>agerpen</i> ‘the appearance’
	<i>aurkez</i> ‘present’	<i>aurkezpen</i> ‘the presentation’

The suffix, which gets attached to the root, is situated in the n-head position and nominalizes its complement. 32 shows the syntactic structure of a deverbal noun such as *suntsiketa* ‘destroying’:



Taking this into consideration and under the Distributed Morphology framework, my hypothesis suggests that also common nouns are neutral until they are assigned [+N] category by the n-head. Common nouns, as mentioned before, differ from deverbal nouns in that they lack verbal nodes (vP and VP), which explains their impossibility to take arguments. The syntactic tree (33) shows the structure of a common noun:



Summarizing, we have a root that does not have a specific categorical feature [+/-N] or [+/-V] until it is assigned one by the n-head. Deverbal nouns have verbal nodes (vP and/or VP) between the \sqrt{RP} and nP, while common nouns do not.

3.2 Types of n-heads

I follow Longobardi (2001) and Alexiadou et al. (2007) in that the possessor argument also originated inside the nominal domain and it c-commands both subject and object arguments, and also assume that the possessor is originated in the Spec-nP (Radford 2000). For the sake of this paper, the label ‘possessor’ is used to refer to the argument that has a referential relation to the following nominal constituents: nouns with inherent part-whole relations (34a–b) and ordinary nouns (34c–d):

- (34)
- a. *Aulkiaren lau hanka*
 chair.D.GEN four leg
 ‘The chair’s four legs’
 - b. *Aulkiaren lau hankak*
 chair.D.GEN four leg.PL
 ‘The chair’s four legs’
 - c. *Neskaren etxe asko*
 girl.D.GEN house many
 ‘The girl’s many houses’
 - d. *Neskaren etxe hau*
 girl.D.GEN house D.PROXIMAL
 ‘This house of the girl’

Notice in (34b, d) that possessors are compatible with determiners, which cause the examples to have a definite reading, whereas in (34a, c) there is not an overt determiner and the example does not have definite interpretation. Thus, this data provides evidence to support Artiagoitia’s (2012b) claim that as in Catalan Picallo (1991), Italian Schoorlemmer (1998), and Hungarian Szabolcsi (1994), definiteness and possessor are dislocated in Basque.

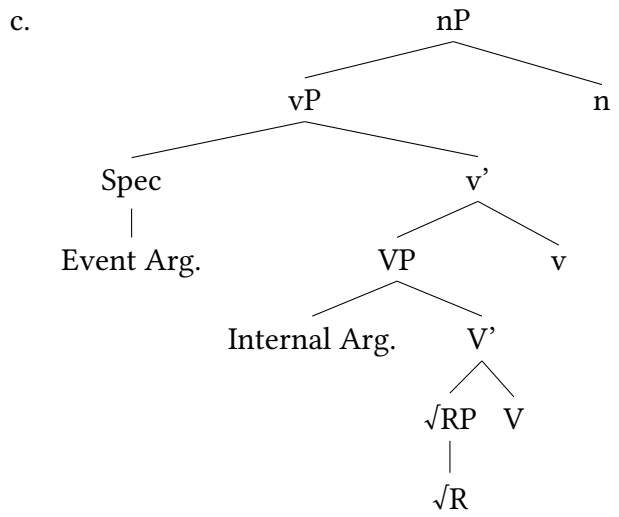
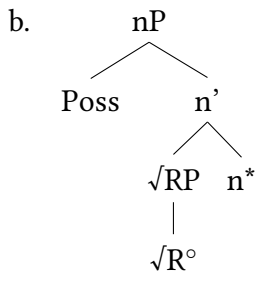
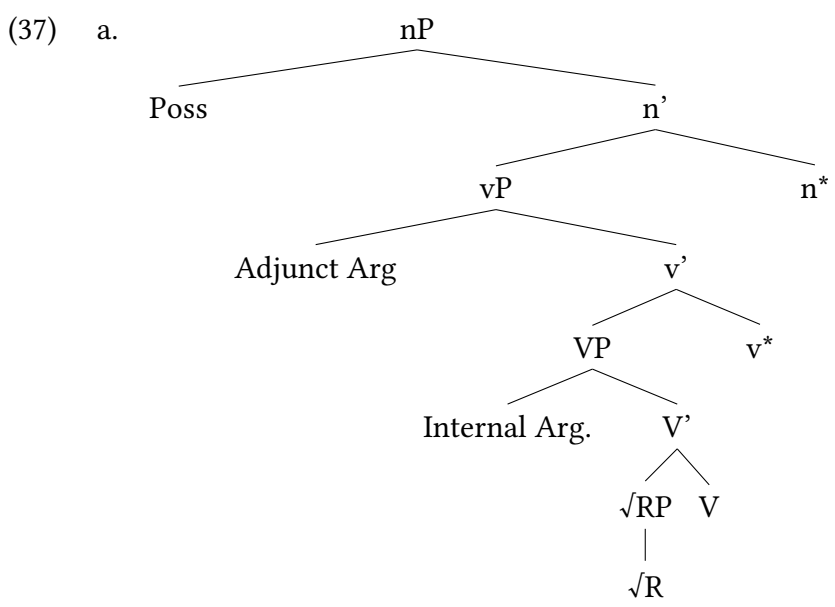
Anderson’s (1983) predicate test shows that *Aulkiaren* in (30a–b) and *Neskaren* in (34c–d) are possessive genitives because they can appear as predicates (35a–b), and therefore they receive the thematic-role neither from the V-head nor the v-head.

- (35) a. Lau hankak aulkiarenak dira
 four leg.D.PL chair.D.GEN.AK be.PRS.3PL
 ‘The four legs belong to the chair’
- b. Etxe hau neskarena da
 house d.proximal girl.D.GEN.D be.PRS.3S
 ‘This house is the girl’s’

Additionally, possessors can co-occur with results nouns, but not with event nouns (36a–b):

- (36) a. *Nire Francoren Gernikaren suntsiketa
 POSS.1S Franco.GEN Gernika.GEN destroying.D
 ‘My Franco’s destroying of Gernika’
- b. Nire Euskalkien sailkapena ikarragarritzkoa da
 POSS.1S dialect.GEN classification.D tremendous.D be.3S.PRS
 ‘My classification of the dialects is tremendous’

In order to explain why possessors can co-occur with ordinary nouns, nouns with inherent part-whole relations and result nouns, while they cannot with event nouns, this paper proposes that, parallel to the two types of v (one introducing an external argument and another not), there are also two types of n; n* does not contain an event argument in its denotation and can introduce the possessor, while n contains an event argument in its denotation and does not introduce a possessor. Expanding on Kratzer’s (1996) ‘Event Identification’, n* will be incompatible with the vP that has v as its head, whereas it will be compatible with a vP that has a v* as its head or a common noun. n, on the other hand, with an event argument in its denotation, will match the former vP with its own e-argument. Hence, we derive the possibility of a possessor with result nouns (37a), nouns with inherent part-whole relations and ordinary nouns (37b), but not with event nouns (37c).



The syntactic tree (37a) predicts that result nouns can have a possessor, an adjunct argument and an internal argument co-occurring. Eguzkitza (1993) shows that this is possible with picture nouns (38a–b). In fact, not only it is possibility to

have the three genitives with picture nouns but also with result nouns (38c):

- (38) a. Von Thyssen-en Riberaren eskalearen erretratua
 Von Thyssen.GEN Ribera.GEN beggar.D.GEN portrait.D
 ‘Von Thyssen’s Ribera portrait of the beggar’ (Eguzkitza 1993: 166)
- b. Monzonen Leizarragaren bibliaren itzulpena
 Monzon.GEN Leizarraga.GEN bible.GEN translation.D
 ‘Monzon’s Leizega’s translation of the bible’ (Eguzkitza 1993: 170)
- c. Nire Bonaparteren Euskalkien hiru sailkapen
 POSS.1s Bonaparte.GEN dialect.GEN three classification.D
 ikarragarrikoak dira
 tremendous.D be.3PL
 ‘My three classifications of the dialects by Bonaparte are tremendous’

Given that the possessor, the external argument and the internal argument share the same case morphology (*-ren*), it is only the hierarchy which determines the thematic role of each of them as it will be shown in the next section.

4 The Functional Phrase

After the possessor, the external argument and the internal argument DPs are originated, the unvalued Case feature [_uCase] in their respective D has to be valued. Artiagoitia (2009, 2012a) proves that both the external argument and the internal argument move to a Spec-FP⁷, a projection above NP and below DP, and argues that they check genitive case with the F-head under this multiple specifier configuration. Assuming that the possessor is originated in the Spec-nP, I claim that the possessor also raises to the Spec-FP position. By showing that the possessor raises to a position higher than the QP but lower than the DP, I will conclude that it moves to the Spec-FP.

First, as in (1) the QP is higher in the structure than the nP, a quantifier originated in the Spec-QP (e.g. *hainbat* ‘many’) would precede the possessor if there were no movement involved. Nevertheless, as it can be observed in the following examples (39a–b), a quantifier originated in the Spec-QP must appear between the possessor and the deverbal noun.

- (39) a. Nire hainbat txakurrekin gogoratu naiz
 POSS.1s many dog.PL.INSTR remember be.1s
 ‘I have just remembered my many dogs’

⁷Artiagoitia (2009, 2012a) calls it Spec-PossP.

- b. *Hainbat nire txakurrekin gogoratu naiz
many POSS.1s dog.PL.INSTR remember be.1s
'I have just remembered my many dogs'

In (39a) *Nire* 'my' precedes the Spec-QP *hainbat* 'many', while in (39b) it follows the quantifier. The fact that sentence (39a) is grammatical whereas (39b) is ungrammatical indicates that even though the possessor *Nire* is originated in the Spec-nP, this constituent must have undergone movement to a position higher than the QP.

Second, assuming that the DP level is associated with referentiality (specifically, +definite) and that elements in Spec-DP will trigger a definite reading, it can be observed in (39a), an example with a –def interpretation, that the possessor does not affect the ±definiteness of the DP. Thus, it has not moved to Spec-DP position. The coordination in (40) corroborates that the possessor is not in Spec-DP as the object does not form a constituent with the determiner.

- (40) [Nire txakur] eta [zure katu]-a ikusi ditut
POSS.1s dog and POSS.2s cat-D see AUX.3PL3s
'I have just seen my dog and your cat'

Hence, given that the possessor moves to a position higher than the QP but lower than the DP, we can conclude that it raises to Spec-FP along with the external and the internal argument creating a multiple specifier configuration. Richards (2001) discusses strict ordering effects among multiple specifiers of the same category and proposes the *Multiple A-Spec theory*, which establishes that movement to multiple specifiers of the same head has to respect superiority, therefore, creating tucking-in effect. Consider sentences (41a–c):

- (41) a. *Gernikaren Francoren oin dala asko suntsiketak hiru
Gernika.GEN Franco.GEN long time ago.KO destroying.D.ERG three
ordu iraun zuen
hour last AUX.3S3s
'Franco's long time ago destroying of Gernika lasted three hours'
b. *Euskalkien Bonaparteren oin dala askoko sailkapena
dialect.GEN Bonaparte.GEN long time ago.KO classification.D
ikarragarrikoa da
tremendous.D be.3S.PRS
'The classification of the dialects by Bonaparte is tremendous'

- c. *Bonaparteren Euskalkien nire hiru sailkapen
Bonaparte.GEN dialect.GEN Poss.1s three classification.D
ikarragarrikoak dira
tremendous.D be.3PL
'My three classifications of the dialects by Bonaparte are tremendous'

As the ungrammaticality of (41a–b) show, the first example (41a) with a result now and the second (41b) with an event noun, the internal argument cannot precede the external argument. Regarding the possessor, if the external and internal arguments precede it, the sentences turn into ungrammaticality as occurs in (41c). Thus, these examples show that the movement of the possessor, the external argument and the internal argument must respect the order in which they were originated; that is, the hierarchical structure <possessor> <external argument> <internal argument>.

5 Conclusion

This paper has shown that in Basque event nouns project a VP and a vP (with the eventive v as its head) in which the internal and the external argument are originated respectively. Result nouns, on the other hand, project a VP and a vP (with the non-active v* as its head) and may or may not take the internal argument and the adjunct-external argument respectively.

The n is responsible for assigning [+N] lexical category to its complement. We have seen that with deverbal nouns this functional head will take a verbal node (the eventive vP in the case of event nouns, and the non-action vP in the case of result nouns) as its complement, whereas with common nouns it will merge directly with the $\sqrt{\text{RP}}$.

For the introduction or lack of introduction of the possessor two types of n have been suggested: one n-head introduces the possessor and does not have an event argument in its denotation making it incompatible with the eventive vP, while it will be compatible with the non-active vP and the $\sqrt{\text{RP}}$. The other n-head does not introduce a possessor and has an event argument in its denotation allowing the n to take an eventive vP as its complement.

Finally, Artiagoitia (2009, 2012b) provides evidence to support the existence of a FP with multiple specifier positions, to which the external argument and the internal argument are independently raised. This study has shown that the possessor also moves to a Spec-FP position above the external argument.

References

- Alexiadou, A. 1997. *Adverb placement: A case study in anti-symmetric syntax*. Amsterdam: John Benjamins.



Alexiadou, A. 2001. *Functional structure in nominals*. Amsterdam/Philadelphia: John Benjamins.

Alexiadou, A., L. Haegeman & M. Stavrou. 2007. *Noun phrase in the generative perspective*. Berlin: Mouton de Gruyter.

Anderson, M. 1983. Prenominal genitive NPs. *The Linguistic Review* 3(1), 1–24.

Artiagoitia, X. 2000. *Hatsarreak eta parametroak lantzen*. Gasteiz: Arabako Foru Aldundia.

Artiagoitia, X. 2006. *Euskarazko izen-sintagma: arkitektura eta egitura funtzionala*. UPV/EHU Katedra Txosten argitaragabea (Professorship Report).

Artiagoitia, X. 2009. *Jabetza-genitiboaren sintaxia eta erkatze anizkuna*. Unpublished ms.

Artiagoitia, X. 2012a. The DP hypothesis in the grammar of Basque. In U. Etxebarria, R. Etxepare & M. Uribe-Etxebarria (eds.), *Noun phrases and nominalization in Basque*, 21–77. Amsterdam/Philadelphia: John Benjamins.

Artiagoitia, X. 2012b. Genitive case and multiple checking in Basque. In U. Etxebarria, R. Etxepare & M. Uribe-Etxebarria (eds.), *Noun phrases and nominalization in Basque*, 209–242. Amsterdam/Philadelphia: John Benjamins.

Borer, H. 1993. *Parallel morphology*. Unpublished ms.

Burzio, L. 1986. *Italian syntax*. Dordrecht: Reidel.

Chomsky, N. 1970. Remarks on nominalization. In R. A. Jacobs & P. S. Rosenbaum (eds.), *Readings in English transformational grammar*, 181–221. Waltham, MA: Ginn & Co.

Chomsky, N. 2005. *On phases*. Unpublished ms.

Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. Oxford: Oxford University Press.

Eguzkitza, A. 1993. Adnominals in the grammar of Basque. In J. I. Hualde & J. Ortiz de Urbina (eds.), *Generative studies in Basque linguistics*, 163–187. Amsterdam/Philadelphia: John Benjamins.

Grimshaw, J. 1990. *Argument structure*. Cambridge, MA: MIT Press.

Hazout, I. 1991. *Verbal nouns: Theta theoretic studies in Hebrew and Arabic*. PhD dissertation, University of Massachusetts at Amherst.



- Jackendoff, R. 1997. *The architecture of the language faculty*. Cambridge, MA: MIT Press.
- Keskin, C. 2009. *Subject agreement-dependency of accusative case in Turkish*. Utrecht: LOT.
- Kratzer, A. 1996. Severing the external argument from its verb. In J. Rooryck & L. A. Zaring (eds.), *Phrase structure and the lexicon*, 109–137. Dordrecht: Kluwer Academic Publishers.
- Laka, I. 2000. Theta blind Case: Burzio’s Generalisation and its image in the mirror. In E. Reuland (ed.), *Arguments and case*, 103–129. Amsterdam: John Benjamins.
- Longobardi, G. 2001. The structure of DPs: some principles, parameters and problems. In M. Baltin & C. Collins (eds.), *The handbook of contemporary syntactic theory*, 562–603. Oxford: Blackwell.
- Marantz, A. 1997. No escape from syntax: Don’t try morphological analysis in the privacy of your own lexicon. *University of Pennsylvania Working Papers in Linguistics* 4(2), 201–225.
- Picallo, C. 1991. Nominals and nominalizations in Catalan. *Probus* 3(3), 279–316.
- Radford, A. 2000. NP shells. *Essex Research Reports in Linguistics* 33, 2–20.
- Rezac, 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 Studies in Theoretical Linguistics, 83–129. Oxford: Oxford University Press.
- 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. 2001. *Movement in language: Interactions and architectures*. Oxford: Oxford University Press.
- Schoorlemmer, M. 1998. Possessors, articles, and definiteness. In A. Alexiadou & C. Wilder (eds.), *Possessors, predicates and movement in the determiner phrase*, 55–86. Amsterdam: John Benjamins.
- Szabolcsi, A. 1994. The noun phrase. In K. É. Kiss & F. Kiefer (eds.), *The syntactic structure of Hungarian*, 55–86. San Diego: Academic Press.



Different types of nouns, different types of projections
Ager Gondra

Received: 2014/04/09

Revised: 2014/07/03

Accepted: 2014/07/21

Ager Gondra
SUNY – Purchase College
Ager.Gondra@purchase.edu