

Studies of the Movement of the D-feature in Spanish

SoYoung Seo

(Chonbuk National University)

Seo, SoYoung. 2004. Studies of the Movement of the D-feature in Spanish. *The Linguistic Association of Korea Journal*, 12(3), 239-255. In Spanish, the verb *HABER* is distinguished from the other verbs. The Spanish verb *HABER* uses a unique conjugated form, *HAY*. In this paper, we have proposed that, in pure expletive constructions, the EPP is satisfied optimally by Movement of the formal features of the Associate to T. We will apply our analysis proposed in pure expletive constructions to the existential construction with the *HABER* in Spanish. In the concrete, our proposal is that the morpheme *Y* in the verb *HABER* in Spanish is defined as the overt Spell-Out of the D-feature. That is to say, in this construction, the EPP is satisfied optimally by Movement of the formal features of the Associate to T. These formal features receive a phonological matrix in the morphological component.

Key Words: the verb *HAY* in Spanish, the overt Spell-Out of the D-feature, the EPP, Movement of the formal features

1. Introduction

Expletive constructions in English have led to much discussion during the last ten years. They are still extensively discussed within the Minimalist Program. However, the constructions with the verb *HABER* in Spanish have received little attention.

In the first part of the paper, we show that the constructions with the verb *HABER* is different from the other Spanish verbs. This verb has a unique conjugated form, *HAY* that means "there is" or "there are." In the second part, we examine theoretical implications of the constructions with *HABER*. We propose that, in pure expletive constructions, the EPP is satisfied optimally by Movement of the formal

features of the Associate to T. In the last part, we will apply our analysis proposed in pure expletive constructions to the existential construction with the *HABER* in Spanish. This paper argues that Y in the verb *HABER* is the overt Spell-Out of Move-F. Here, Move-F is considered as a complex operation that involves an Attractor F, a feature F to be attracted and the operation Merge.

2. The constructions with the verb *HAY* in Spanish

In Spanish, various endings are attached to verbs to indicate who is speaking for first-, second-, and third-person forms in singular and plural constructions. For regular verbs, the *-ar*, *-er* or *-ir* at the end is replaced with the appropriate ending.

- (1) a. Yo hablo.
 'I talk'
- b. Tú hablas
 'You (singular) talk'
- c. Él habla.
 'He talks'
- d. Ella habla.
 'She talks'
- e. Nosotros hablamos
 'We talk'
- f. Ellos hablan.
 'They talk'

In many cases the verb form gives enough information so that it isn't necessary to indicate with a subject noun or pronoun who is performing the action.

- (2) a. Hablo.
 'I talk'

- b. Hables
'You (singular) talk'
- c. Hablamos
'We talk'

But the Spanish verb *HABER* has a unique conjugated form, *HAY* (pronounced basically the same as the English "eye") that means "there is" or "there are."

- (3) a. *Hay una silla en la cocina.*
'There is one chair in the kitchen'
- b. *Hay dos sillas en la cocina.*
'There are two chairs in the kitchen'

As shown in (4-5), compared to the other Spanish verbs (existential), the verb *HABER* has only used the morpheme Y.

- (4) a. Hay un hombre en el jardín.
'Is(3.sing) a man in the garden'
- b. Hay unos hombres en el jardín.
'Is(3.sing) mans(pl) in the garden'
- (5) a. La revista está en el coche.
'the magazine is in the car'
- b. Las revistas están en el coche.
'the magazines are(pl) in the car'

Like the construction with *there* in English, the verb *HABER* in Spanish does not agree with the Associate *un hombre* ('a man'), *unos hombres* ('mans'). On the other hand, the verb *ESTAR* manifests agreement with the Associate *la revista* ('the magazine'), *las revistas* ('the magazines').

As it happens in English, there seems to be a Definiteness Effect with the constructions *HAY* in Spanish. But the sentences with the verb, *ESTAR*, do not have a Definiteness Effect.

(6) There are several/*the cats in the garden.

(7) Hay unos/*los perros en el jardín.

'Is(3.sing) *the dogs in the garden'

(8) Los perros están en el jardín.

'the dogs are in the garden'

As concerned in (3-4), the verb *HABER* in the existential sentence, a difference of the other Spanish verbs, does not agree with the subject.

2.1. Alexiadou & Anagnostopoulou (1998)'s analysis of the EPP in Spanish

In the generative grammar, the EPP in Spanish has been studied by many linguists (for example, Alexiadou & Anagnostopoulou, 1998, Picallo, 1998). In the concrete, Alexiadou & Anagnostopoulou (1998) investigate a number of asymmetries in the behavior of subjects in Germanic, Celtic/Arabic, Romanic, and Greek. The languages under investigation can be divided into two main groups with respect to a cluster of properties, including the availability of pro-drop with referential subjects, the possibility of VSO/VOS orders, the A/A' status of subjects in SVO orders, the presence/absence of Definiteness Restriction -effects in unaccusative constructions, the existence of verb-raising independently of V-2, and others. They argue that the key factor in this split is a parametrization in the way the Extended Projection Principle (EPP) is checked: move/merge XP vs. move/merge XO. The first option is taken in Germanic, the second in Celtic, Greek, and Romanic. According to their proposal, the EPP relates to checking of a nominal feature of AGR, and move/merge XO languages satisfy the EPP via V-raising, as their verbal agreement morphology includes the requisite nominal feature. Moreover, they demonstrate that further differences that exist between Celtic/Arabic on the one hand and Romanic/Greek on the other, are related to the parametric availability of Spec, TP for subjects. In Celtic and Arabic, Spec, TP for subjects is licensed, resulting in VSO orders with VP external subjects. In Greek

and Romanic, Spec, TP is not licensed, resulting in 'subject inverted' orders with VP internal subjects. In other words, they show that within the class of move/merge XO languages, a further partition emerges which is due to the same parameter dividing Germanic languages into two major classes. Alexiadou & Anagnostopoulou (1998) demonstrate that combining the proposed EPP/AGR parameter with the Spec, TP parameter gives four language-types with distinct properties. From this point of view, the EPP in Spanish is satisfied by the Movement of the verb to T because of the morphemes (Agreement in gender & number) of the verbs.

But this idea can't apply to the constructions with the verb *HABER* because this verb does not manifest agreement with the subject or the Associate.

Due to this problem, in this paper, we will reanalyze the verb *HABER* in the existential construction.

3. Reanalysis of the *HABER* in Spanish

In Seo & Lefevre (2000, 2001), we have proposed that, in pure expletive constructions, the EPP is satisfied optimally by Movement of the formal features of the Associate to T. We will apply our analysis proposed in Seo & Lefevre (2000, 2001) to the existential construction with the *HABER* in Spanish.

3.1. Pure expletive constructions (Lefevre, 1999, Seo & Lefevre, 2000, 2001)

In French, there are at least two types of expletives: pure expletives and what we call semi-expletives. This distinction is made on the basis of agreement with the verb. For example, French has three expletives *ce*, *il* and *ça*. They are exemplified in (9).

- (9) a. Cest un chien.
'EXPL.-is a dog'

- b. Il pleut.
'EXPL. rain-3SG'
- c. Il y a des chiens dans le jardin.
'EXPL. LOC-CL has-3SG DET dogs in the garden'
- d. Il semblait qu'il allait pleuvoir.
'EXPL. seemed-3SG that EXPL. went-3SG (to)rain'
- e. Comment ça va?
'How EXPL. goes-3SG'
- f. Ça y est?
'EXPL. LOC-CL is-3SG'
- (10) a. There is a dog in the garden.
b. There are dogs in the garden.
c. C'est un chien.
'EXPL. is-3SG a dog'
- d. Ce sont des chiens.
'EXP are-3PL the-PART-PL dogs'
- (11) a. Il arrivera toujours des gens en retard.
'EXPL. arrive-FUT-3SG always the-PART-PL people-PL
in late'
- b. *Il arriveront toujours des gens en retard.
'EXPL. arrive-FUT-3PL always the-PART-PL people-PL
in late'
- c. Il y a des chiens dans le jardin.
'EXPL. LOC-CL has-3SG the-PART-PL dogs in the garden'
- d. *Il y ont des chiens dans le jardin.
'EXPL. LOC-CL has-3PL the-PART-PL dogs in the garden'

Of these expletives, only *ce* is a pure expletive. Like the English *there*, the pure expletive *ce* does not agree with its verb and we assume that it is just formed of a formal feature, a D-feature.¹⁾ The verb, as in

1) Empirical evidence that pure expletive *ce* is pair-merged, that is, adjoined to T, and not in the Specifier of T, is that inversion of *ce* in interrogative questions become ungrammatical. On the contrary, semi-expletives merged in the Specifier of T allow inversion as in (ii).

(10c) and (10d), manifests agreement with the Associate *un chien* ('a dog'), *des chiens* ('dogs'). On the other hand, *il* and *ça*, like the English *it*, contain phi-features (number, person and gender features). As shown in (11), they agree with their verbs.

In the Principle and Parameters framework, expletive constructions were a source of problems. It was difficult to account for the verbal agreement with the Associate, and the lack of a thematic role in the expletive (construction) was enough to eliminate it before LF. In the Minimalist Program (Chomsky, 1995), agreement between the verb and the Associate is explained by adjunction of the formal features of the Associate to T (see 12). The expletive is eliminated via further adjunction of the semantic features of the Associate.

- (12) a. [TP Ce [T FF[des chiens]_i sont [DP des chiens]_i]].
 'EXPL. are-PL the-PART-PL dogs'
 b. [TP FF[N]_i Ce [T FF[des chiens]_i sont [DP des chiens]_i]].

In (12), the uninterpretable phi-features of T attract the phi-features of the Associate *des chiens*. A copy of the Formal Features of the Associate merges (pair-merges) with T. The expletive selected from the Numeration is merged (set-merged) in order to satisfy the selectional feature D of T. The categorial feature of the Noun, pied-piped with

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- (i) a. *Sont-ce des chiens?
 'are-EXPL the-PART-PL dogs'
 "Are they dogs?"
 b. *Combien de lettres est/sont-ce que Paul a expédiées?
 'How many of letters-FEM-PL is/are-EXPL that Paul sent-FEM-PL'
 "How many letters did Paul send" (from Pollock, 1983)
 c. Ce sont des chiens?
 d. Ce sont combien de lettres que Paul a expédiées?
- (ii) a. Pleut-il?
 'rains it'
 "Does it rain?"
 b. Il pleut?
 (Natalia Sanchez Lefevre, 1999, p.6)

the formal features of the Associate, is attracted by the expletive *ce* and adjoins to it. The expletive is, in this way, eliminated and this allows the derivation to converge at LF.

But there are some controversies with this analysis and with the minimalist spirit that there is nothing more than what is required by the Interfaces or by the Computational System itself. In Chomsky's analysis there is a need to postulate extra mechanisms/assumptions in order to explain pure expletive constructions. One such assumption is that pure expletives are exceptional in the sense that they are allowed to check features by Merging.

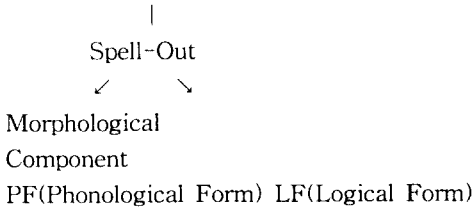
Another is that we need to postulate two operations Erase and Delete in order to explain expletive raising. These operations are not justified conceptually since the distinction between Erase and Delete does not seem to play a role in the Computational System except for these constructions (as argued in Nunes, 1998b). An optimal solution would be to have just one such operation.

There is also a need to postulate a mechanism to eliminate the expletive before LF. The solution that Chomsky proposes is controversial because once phi-features have been checked, they cannot be attracted again, or at least they cannot move. But in order to eliminate the expletive, the categorical feature N moves and adjoins to the expletive although it is part of the formal features, in particular of the phi-features, which have already been checked.

A remaining point is that it is not obvious that pure expletives should be part of the Lexicon since they are only made of one feature, and this feature is uninterpretable. A Lexical Item lacking interpretable features cannot be part of the Lexicon. For the same reason that there cannot be any AGR in the Lexicon, pure expletives cannot be part of the Lexicon since they actually lack interpretable semantic features.

It is commonly assumed that phonological features play no role during the Computation. Following Halle and Marantz (1993), We assumed that the phonological matrix of a Syntactic Object is added following Spell-Out (see 13). Consequently, syntactic objects obtain phonological features only in the Morphological Component.

(13) Numeration



We proposed an alternative analysis of pure expletive constructions. As we have seen, the Numeration cannot contain any pure expletive. It contains just {T, sont, des chiens}. The first operation consists in set-merging *sont* with *des chiens*. Then T with the Syntactic Object already formed.

T has uninterpretable phi-features that attract the phi-features of *des chiens*. Recall that the D-feature of T and the phi-features of T are satisfied independently as in Quirky Case sentences. So the phi-features of *des chiens* are copied and pair-merged with T.

Now T needs to be satisfied the selectional D-feature. For the minimalist way of satisfying, it is possible to move an identical D-feature from the Associate, since we do not have an expletive in the Numeration. The D-feature of the Associate *des chiens* is thus copied and pair-merged with T.

- (14) a. [TP +Di sont [D_{PL} des chiens]].
 'are-PL the-PART-PL dogs'
 b. After Lexical Insertion
 Ce sont des chiens.
 'EXPL are the-PART-PL dogs'

3.2. Existential constructions with *HAY*

As shown above, the Spanish verb *HABER* is distinguished from the other Spanish verbs. This verb contains a unique conjugated form, *HAY* which means "there is" or "there are." In particular, the verb *HABER*

is compared to other Spanish verbs (existential) in the following points:

- (15) a. Hay una revista en el coche.
 'Is(3.sing) a magazine in the car'
 b. Hay unas revistas en el coche.
 'Is(3.sing) magazines(pl) in the car'
- (16) a. La revista está en el coche.
 'the magazine is in the car'
 b. Las revistas están en el coche.
 'the magazines are(pl) in the car'

The verb *HABER* in Spanish, as in the constructions with pure expletives, does not agree with the Associate, while on the other hand, the verb *ESTAR* shows agreement with the Associate. Here, we can see the different semantics between the verb *HABER* and the verb *ESTAR*. In the concrete, in the constructions with *HABER*, like the construction with *there* in English, exists the ambiguous semantic according to Hornstein, Rosen & Uriagereka (1994). However, the constructions with the verb *ESTAR* do not show this ambiguity. Consider the following sentence.

- (17) There is a Ford T engine in my Saab.
 (Hornstein, Rosen & Uriagereka, 1994, p.1)

It embodies the ambiguity resolved in (18).

- (18) a. My Saab has a Ford T engine.
 b. (Located) in my Saab is a Ford T engine.

According to Hornstein, Rosen & Uriagereka (1994), (18a) depicts the Ford T engine as an integral part of the Saab. This is the kind of engine that drives it. Call this the integral interpretation. The meaning explicated by (18b) fixes the location of at least one Ford T engine. This engine need not be a part of the Saab. Were one in the business

of freighting Ford T engines in the back seat of one's Saab, (18b) could be true without (18a) being so. Call this the standard interpretation. It is also possible to have an integral interpretation, as in (17), in the construction with the Spanish verb *HABER*. But the sentence with the verb *ESTAR* contains the standard interpretation only.

- (19) Hay una revista en el coche.
 'Is(3.sing) a magazine in the car'
- (20) a. Mi coche tiene una revista.
 'My car has a magazine'
- b. En mi coche está localizada una revista.
 'In my car is located a magazine'

The sentence (19) contains two interpretations as in (20a, b). But the construction with the verb *ESTAR* does not have the integral interpretation. For this interpretation, the construction of the verb *TENER* ('HAVE') must be used.

- (21) a. El motor está en el coche.
 'The motor is located in the car'
- b. El coche tiene un motor.
 'The car has a motor'

Furthermore, as it happens in the construction with pure expletives, the constructions *HAY* in Spanish show a Definiteness Effect. However, the sentences with *ESTAR* do not have this Definiteness Effect.

With reference to the typical properties of the sentences with the verb *HAY* in Spanish, in this paper, we will propose that, like the pure expletives, the verb *HAY* in Spanish contains the Move-F, in the concrete, the D-Feature. In our analysis, the morpheme *Y* in the *HAY* is the overt Spell-Out of Move-F. Move-F is a complex operation that involves an Attractor F, a feature F to be attracted and the operation Merge. The Attractor in Chomsky (1995) is considered an uninterpretable

feature. In Chomsky (1998a, b), it can also be a selectional feature. For example, the D-feature of Tense is a selectional feature. This feature requires that some element merges in its Specifier. Following Nunes (1998a, p.164), adjunction of a feature to a head is the optimal way of satisfying any feature checking requirement. In other words Movement to the Specifier of a head H is only triggered if the optimal option of adjunction to H is not available. Thus the EPP can be redefined in the following terms: The selectional D-feature of T is satisfied optimally by adjunction of formal features to T, but if this option is not available it is satisfied by merging of a syntactic object in its Specifier. On the basis of this concept, we suppose that, in the existential constructions with *HAY* in Spanish, T has uninterpretable phi-features that attract the phi-features of *un hombre* (or *unos hombres*) in (15). Here, the D-feature of T and the phi-features of T are satisfied independently as in Quirky Case sentences. As a result, the phi-features of *un hombre* (or *unos hombres*) are copied and pair-merged with T. Now the selectional D-feature of T needs to be satisfied. It is possible to move an identical D-feature from the Associate, since we do not have an expletive in the Numeration. The D-feature of the Associate *un hombre* (or *unos hombres*) is thus copied and pair-merged with T.

As indicated in the example (22), in the existential constructions, the verb *HABER* only has the morpheme *-Y*, a difference of the other Spanish verb (existential).

- (22) a. Hay un hombre en el jardín.
 'Is(3.sing) a man in the garden'
 b. Hay unos hombres en el jardín.
 'Is(3.sing) mans(pl) in the garden'
- (23) a. La revista está en el coche.
 'the magazine is in the car'
 b. Las revistas están en el coche.
 'the magazines are(pl) in the car'

Like the pure expletive *ce* in French, the verb *HABER* in Spanish

does not agree with the Associate *un hombre* ('a man'), *unos hombres* ('mans'). On the other hand, the verb *ESTAR* manifests agreement with the Associate *la revista* ('the magazine'), *las revistas* ('the magazines'). From this point of view, the morpheme *Y* in the verb *HAY* is defined by the overt Spell-Out of Move-F. In the concrete, we suppose that it is just formed of a formal feature, a D-feature.

But, in these constructions with the *HAY*, the Movement of the D-feature of the Associate to the Checking domain of T is generally restricted to indefinite NPs. A definite phrase does not seem to license the existential construction with the *HAY* in Spanish. As it happens in the pure expletive constructions in French, there seems to be a Definiteness Effect with the *HAY* in Spanish.

- (24) a. *Cest le chien.
 'EXPL is-3SG the dog'
 "This is the dog"
- b. *Ce sont les amis.
 'EXPL are-3PL the friends'
 "They are the friends"
- c. Cest un chien.
 'EXPL is-3SG a dog'
 "This is a dog"
- d. Cest des amis.
 'EXPL is the-PART-PL friends'
 "They are friends"

Like the examples (24), there is a Definiteness Effect with the constructions *HAY* in Spanish. But the sentences with *ESTAR* do not have that Effect.

- (25) Hay unos/*los perros en el jardín.
 'Is(3.sing) dogs(pl)/*the dogs in the garden'
- (26) Los perros están en el jardín.
 'The dogs are in the garden'

For Definiteness Effect with the *HAY* in Spanish, as indicated by Natalia Sanchez Lefevre (1999), we will suppose that indefinite noun phrases have a property P that allows their D-feature to move alone in order to satisfy the D-feature of T.²⁾ But for those with definite noun phrases, the D-feature of the Associate cannot be attracted alone; the whole phrase must be pied-piped.³⁾

- (27) [TP Il_i T [_{VP} t_i *mange*; [_{VP} t_i *des fruits*]]].
 'he eats the-PART-PL fruits'
 "He eats fruits" (Natalia Sanchez Lefevre, 1999, p.8)

2) As suggested by Natalia Sanchez Lefevre (1999, p.14), this property P may possibly have to do with the Partitive Case. A possible approach is to consider that structural Cases like the Nominative and Accusative close a DP so that it has categorial features if attracted, to pied-pipe the whole element. On the contrary a DP with the Partitive Case remains open to attraction and to movement of its categorial features.

3) As supposed by Sabel (2000, p.417), the Definiteness restriction on expletive associate constructions in English can be explained on the basis of Diesing's (1992) analysis of indefinites.

- (i) [TP There are [_{VP} several/*the cats in the backyard]]
 (ii) a. There is a man in the garden.
 b. A *man* is *t* in the garden.

It follows from this analysis that definite subjects may not appear inside the predicate phrase (or "nuclear scope") at LF. In addition, this analysis predicts that the reading of an indefinite subject depends on the structural position it occupies at LF. Given the plausible assumption that *there* and *the* in (i) both carry a D-feature, after *there*-raising, the D-feature in T is checked and T does not attract the D-feature of *the* (*cats*). The fact that associate-raising in (i) is impossible causes the ungrammaticality of this example. In contrast, an indefinite associate is licensed since in this case, only one D-feature is present, i.e. *there*. Now consider (ii). The subject in the non-existential sentence (iib) may be interpreted in both subject positions, either in its derived position or in the position of its trace, correlating with a specific referential or a nonspecific reading. The specific referential reading is not possible in (iia), since specific indefinites must reside outside the predicate phrase at LF, and, given his analysis, the associate in (iia) must remain in-situ at LF.

4. Conclusion

The Spanish verb *HABER* has a unique conjugated form, *HAY* that means "there is" or "there are." Compared to the other Spanish verbs (existential), the verb *HABER* only uses the morpheme *Y*. Like the construction with *there* in English, the verb *HABER* in Spanish does not agree with the Associate. In this paper, we have examined the typical properties of sentences with the verb *HAY* in Spanish.

In the concrete, we have proposed that, in pure expletive constructions, the EPP is satisfied optimally by Movement of the formal features of the Associate to T. Like the English *there*, the pure expletive does not agree with its verb and we assumed that it is just formed of a formal feature, a D-feature.

In this paper, we have applied our analysis proposed in pure expletive constructions to the existential construction with the *HABER* in Spanish. We argue that *Y* in the verb *HABER* is the overt Spell-Out of Move-F. Here, Move-F is considered as a complex operation that involves an Attractor F, a feature F to be attracted and the operation Merge.

The central point of this paper is that, like the pure expletives, the verb *HAY* in Spanish contains the Move-F, in the concrete, the D-Feature. That is to say, in our analysis, the morpheme *Y* in the *HAY* is considered as the overt Spell-Out of Move-F. The morpheme *Y* in the existential verb *HAY*, a difference of the other existential Spanish verbs, does not agree with its Associate and we proposed that it is just formed of a formal feature, a D-feature.

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Soyoung Seo
Spanish Department
Humanities, Chonbuk National University
Deokjin-gu
Chonju 561-756, Korea

Phone: 82-63-270-3275

Email: soyoungeol@yahoo.co.kr

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