Fronting and contrastively focused secondary predicates in Spanish

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Abstract: The present paper is about the syntactic position of contrastively focused secondary predicates in Spanish. In the literature, fronting is presented as a possible means to encode contrastive focus in Spanish. Based on data from a production experiment I will show however that fronting is a dispreferred strategy for the encoding of contrastively focused secondary predicates (and other postverbal constituents such as direct objects and locative adverbials). The main conclusion is that secondary predicates appear in their base position after the verb also when contrastively focused. In the last part of the paper I compare the results of my experiment to other empirical studies on this matter and discuss the grammatical constraints that may underlie the speaker's choice when encoding contrastive focus.

Keywords: contrastive focus, secondary predicates, fronting

1 Introduction

This paper is about the syntactic position of contrastively focused secondary predicates (SP) in Spanish. Secondary predicates are postverbal constituents in the sense that their unmarked position is after the verb. Based on data from a production experiment I will show that secondary predicates not only appear in postverbal position in unmarked contexts (such as sentence focus), but that they also appear predominately in postverbal position when contrastively focused (for the sake of comparison I will also present results on contrastively focused direct objects (dO) and locative adverbials (LOC)).

The flip side of the postverbal position of contrastively focused secondary predicates is that fronting is a dispreferred strategy. In Section 2 I will provide a brief overview on the relation between fronting and contrastive focus in Spanish. The main conclusion of this section will be that fronting is a possible means to encode contrastive focus in Spanish, but that most authors do not comment on the status of fronting in relation to other strategies to encode contrastive focus. In Section 3 I will briefly present the main characteristics of secondary predicates and show how the present study contributes to the investigation of the relation between secondary predicates and information structure.

In Section 4, which is the main part of the paper, I introduce the production experiment. The main results are (i) that the contrastively focused constituents appear in postverbal position, and (ii) that they preferably appear in their unmarked position, regardless of whether this is the sentence final or prefinal position. In Section 4.3 I will compare these results to other empirical studies on this matter and discuss the grammatical constraints that may underlie the speaker's choice when encoding contrastive focus.

2 Contrastive focus and fronting in Spanish

The purpose of this section is to clarify the notions of *fronting* and *contrastive focus* and to see how the relation between fronting and contrastive focus in Spanish is described in the literature.
In the literature on focus, it is common to distinguish between several types of focus. Such distinctions can be made with respect to different parameters. For example, concerning the size of the focus one can distinguish between *sentence focus* vs. *VP focus* vs. *object focus*, as in (1).

(1) a. - What happened?
- [John bought a new car]$_F$ sentence focus
b. - What did John do yesterday?
- He [bought a new car]$_F$ VP focus
c. - What did John buy?
- He bought [a new car]$_F$ object focus

One can further distinguish different types of focus based on the relation that the focused constituent has to its context. In (1c.), (repeated below as (2a.)) the focused constituent *a new car* clearly has a different relation to the context than it has in (2b.). While in (2b.) it contrasts with an element of the preceding context, no such relation holds in (2a.): the focus just contributes new information to the discourse (in this case it's information that is explicitly requested in the preceding question). Foci as in (2a.) are often called *information focus*, those in (2b.) *contrastive focus*.

(2) a. - What did John buy?
- He bought [a new car]$_F$ information focus
b. - John bought a house, right?
- No, he bought [a new car]$_F$ contrastive focus

Within Rooth's (1985) *Alternative Semantics*, the distinction between information and contrastive focus can be stated in terms of the size of the alternative set, i.e. the set of alternatives to the focused constituent. In the case of the contrastive focus in (2b.), the set of alternatives for the focus *a new car* consists of one element only, namely *a house*. In the case of the information focus in (2a.), however, the set of alternatives is an open set, which may contain *a house*, *a dog*, *a bike*, etc.[1]
Let us now turn to the second notion: *Fronting* refers to the movement of a constituent to a preverbal position. In (3), *manzanas* 'apples' is the direct object in the sentence. However, it does not appear in its canonical postverbal position, but in preverbal and sentence initial position.[2]

(3) Fronting
MANZANAS compró Pedro (y no peras). (Zubizaretta 1999: 4239)
apples buy:3.SG.PST P. and NEG pears
'Pedro bought apples and not pears'

[1] Cf. Repp (2010: 1335) on the relation between different types of focus and the alternative set.
[2] Spanish is a SVO language (cf. Hernanz & Brucart 1987: 75; Gutiérrez-Bravo 2008: 369-371). Gutiérrez-Bravo (2007: 236) stresses that the unmarked word order also depends on the semantic verb class: (i) with certain psych verbs (e.g. *gustar* 'like') the unmarked order of V, S and iO is iO-V-S; (ii) with unaccusative verbs the unmarked order of V and S is *V-S*.

Fronting must be distinguished from other types of movement to the left-periphery such as *left-dislocation*.[3]

(4) Left-dislocation
Las manzanas, las=compró Pedro.
the apples CL=buy:3.SG.PST P.
'The apples, Pedro bought them'

Left-dislocation as in (4) differs from fronting in that it does not trigger inversion and in that it requests a resumptive pronoun if the dislocated element is an argument of the verb. This difference in the syntactic surface structure can be accounted for by assuming that the two types of movement involve different landing sites; only in the case of fronting does the moved constituent end up in a position that is still part of the core sentence.[4]
Concerning the relation between fronting and contrastive focus in Spanish, we first look at the logically possible relations and then evaluate which of the relations actually holds. The most entangled relation between contrastive focus and fronting would be that contrastive focus could only be expressed through the fronting of a constituent and only contrastively focused constituents could be fronted. In set-theoretic terms, this would mean that the set of constituents that are fronted ($\{C_f\}$) and the set of constituents that are contrastively focused ($\{C_{CF}\}$) are identical.
Another possible relation would be that contrastive focus could only be expressed through fronting, but that fronting is not restricted to contrastive contexts. In this case, contrastively focused constituents would be a subset of fronted constituents.
The third possible relation would be that fronting would only be used to express contrastive focus, but that contrastive focus can also be expressed by means other than fronting. In this case, contrastively focused constituents would be a superset of fronted constituents.
The fourth possibility would be that fronting could be used to express contrastive focus, but is not limited to such contexts, and that contrastive focus can be expressed by fronting but also by other means. In this case the set of fronted and the set of contrastively focused constituents would intersect.
The last possibility shall just be mentioned for the sake of completeness: fronting could not be used to express contrastive focus; in this case the set of constituents that are fronted and contrastively focused is empty.
In order to find out which of these relations (also summarized in (5)) actually holds, one needs to look at the information structural status of fronted constituents and verify how contrastive focus is expressed in Spanish.

(5) possible relations between fronting and contrastive focus
a. $\{C_f\}$ equals $\{C_{CF}\}$
b. $\{C_{CF}\}$ subset of $\{C_f\}$
c. $\{C_f\}$ subset of $\{C_{CF}\}$
d. $\{C_f\}$ and $\{C_{CF}\}$ intersect
e. $\{C_f\}$ and $\{C_{CF}\}$ do not intersect

Starting with fronted constituents, a first distinction needs to be made between fronted constituents that bear the sentence's main stress and fronted constituents that do not.

[3] In the case of left-dislocation, the element that moves to the left-periphery is usually the topic of the sentence. However, left-dislocation is also related to focalization in that a subject can be focused more easily if the direct object is dislocated from the core sentence (as in (4)).
[4] Some more details on the phrase structural properties of fronting will be given in Section 4.3.

An example of the first type has already been given above. In (3) the fronted constituent bears the main stress. Further, the fronted constituent is a contrastive focus. In fact, many authors hold that in Spanish fronted constituents that bear the main stress necessarily need to be interpreted as contrastive focus (cf. amongst others Di Tullio 1997: 363; Zubizarreta 1999: 4239; Revert Sanz 2001: 27; Martín Butragueño 2005: 135). There are however hints that such a statement does not hold categorically and needs to be relativized.
Brunetti (2009) presents data where the fronted foci are not contrastive in the above sense. Based on data from corpora of spoken Spanish and Italian, Brunetti (2009: 48) distinguishes three subtypes of fronted foci: (i) the fronted element overtly contrasts with an element of the context (as in (3)); (ii) the fronted element presents unexpected information or information that contrasts with an implicitly assumed belief; (iii) the fronted element expresses information that answers a question that is not present in the immediately preceding context. Note that only the first, possibly also the second, but by no means the third type corresponds to contrastive focus as described above. (6) is one example given by Brunetti (2009) for this third kind of fronted focus. As in the case of (2a.), the set of alternatives to the focus is open, or at least only restricted by the fact that it has to be a possible leisure activity.

(6) BEA: No está mal tener actividades de ocio [...]
'It's not bad to have leisure activities.'
VIT: Sí, como el aerobic, por ejemplo.
'Yes, like aerobics, for instance.'
BEA: Que se nos acaba. Tendremos que buscarnos otra cosa, no? [...]
'which is about to end. We'll have to look for something else, don't you think?'
Sí que tendremos que buscar agún sitio... a mí sí que apetece seguir...
'We definitely should look for some place... I do want to continue...'
[*Ir a* ***nadar***]$_F$ *me=gustaría*.
go:INF to swim:INF CL= please:3.SG.PRS.COND
'I would like to go SWIMMING.'
(Brunetti 2009: 60)

Further, it has been stated in the literature that foci in initial position can be interpreted as information focus. In the example in (7), the subject is in its canonical preverbal position and focused. But as the context, i.e. the preceding question, shows, the subject is an information focus and not a contrastive focus. Although this example does not involve the movement from a postverbal to a preverbal position, it illustrates nevertheless that the initial position is not limited to contrastive foci.

(7) (Context: Who plays the piano?)
JUAN toca el piano.
Juan play:3SG.PRS the piano
'Juan plays the piano'
(Gutiérrez Ordóñez 1997: 35)

Similarly, Gabriel (2007: 287) reports data from a judgment experiment where 18 participants had to state their preference between two possible orderings. In the case of a focused direct object, the vast majority preferred the stimulus with the focus in sentence final position (as in (8a.)) over the stimulus with the focus in initial position (as in (8b.)). Nevertheless, some participants preferred the version with the fronted information focus, and further only three of the 16 other participants judged the fronted information focus as inappropriate.

(8) (Context: What does María buy at the kiosk?)
a. María compra en el kiosco el diario
M. buy:3SG.PRS at the kiosk the newspaper
b. El diario compra María en el kiosco
The newspaper buy:3SG.PRS M. at the kiosk
'Mary buys the newspaper at the kiosk'
(Gabriel 2007: 287)

Finally, the RAE (2009: 2987) states that fronting is a means to focus constituents, but that focus fronting is not limited to contrastive contexts. Given these data and statements from the literature, the view that fronted foci in Spanish are limited to contrastive contexts needs to be relativized at least in that it does not hold as a categorical statement.
The data on fronting discussed so far involved only cases where the sentence's main stress falls on the fronted constituent. However, there are cases of fronting in Spanish where the main stress is not on the fronted constituent. A recent discussion of this type of fronting can be found in Leonetti & Escandell-Vidal (2009); examples are given in (9).

(9) a. Algo has visto.
something have:2.SG.PRS see.PST.PTCP
'You have seen something'
b. Lo mismo creo yo.
the same believe:1.SG.PRS I
'I believe the same'
(cf. Leonetti & Escandell-Vidal 2009: 179)

Leonetti & Escandell-Vidal (2009: 179) analyze such instances of fronting as expressions of verum focus. This means that the focus in these examples is not the fronted element, but the positive polarity of the assertion. Consequently, the focus-background-partition of these sentences is such that the whole sentence is background and only the positive polarity, which does not have an overt expression, is the focus (cf. (10)).

(10) $[\ +\ ]_{\text{Focus}}$ $[\text{algo has visto}]_{\text{Background}}$

Another type of fronting without the main stress in initial position can be found in poetic and literary texts. In (11) the fronting is clearly motivated by the fact that it creates parallel structures.

(11) Desnudo salí del vientre de mi madre,
naked:M come.out:1.SG.PST of.the belly of my mother
y desnudo volveré allí.
and naked:M return:1.SG.FUT there
'I came out of my mother's belly naked, and I will go back there naked'
(Libro de Job, viewed 12/3/2011, <http://www.vicariadepastoral.org.mx/>; mod. StH)

This use of fronting, also referred to as *anaphora*, may be used to rhythmize an utterance and to slow it down (cf. Blasberg 1992: 543). A similar example is given in (12).

(12) Triste caminó Pepita hacia la puerta del penal. Triste
sad walk:3.SG.PST P. towards the door of.the prison sad
caminó el abuelo de Elvira.
walk:3.SG.PST the grandfather of E.
'Sad walked Pepita to the door of the prison. Sad walked Elvira's grandfather.'
(Chacón, 2002, *La voz dormida*; CREA; mod. StH)

So far we have seen that fronting is not limited to contrastive focus as one type of focus, and further that it is not even limited to focus as such. As a consequence, we may cross off the first and the third candidates from the list in (5).
Now we change the perspective and verify how contrastive focus can be expressed in Spanish. A first possibility is fronting, i.e. to move the contrastively focused constituent to a preverbal position (cf. (3)). Assertions that contrastive focus can be expressed through fronting can be found in most literature on focus marking in Spanish (cf. the literature cited above).
Another formal means to express contrastive focus is clefting (cf. Moreno Cabrera 1999; RAE 2009: §40.10; Di Tullio 1990), as in (13). According to Gutiérrez-Bravo (2008: 377) clefting is the typical way to encode contrastive focus in Spanish.

(13) a. La que votó por Pedro fue [Luz]$_{CF}$
the.one who vote:3.SG.PST for P. be:3.SG.PST L.
'It was Luz who voted for Pedro'
b. Los que no entregaron la tarea fueron [Jaime y Tania]$_{CF}$
the.ones who NEG deliver:3.PL.PST the task be:3.PL.PST J. and T.
'It was Jaime and Tania who didn't deliver their tasks'
(Gutiérrez-Bravo 2008: 377; mod. StH)

Another way to express contrastive focus is to leave the focused constituent *in situ* and to put the sentence's main stress on the constituent (cf. Gutiérrez Ordoñez 1997; Gabriel 2007, 2010). The data in (14) show that all kinds of constituents can be contrastively focused in this way.

(14) a. VIOLANTE me manda hacer un soneto (no Amarilis)
V. me order:3.SG.PRS make.INF a sonnet NEG A.
'Violante orders me to write a sonnet and not Amarilis'
b. Violante me MANDA hacer un soneto (no me lo pide)
NEG me CL beg:3.SG.PRS
c. Violante me manda HACER un soneto (no leer)
NEG read:INF
(Gutiérrez Ordóñez 1997: 36)

Finally, in the last encoding type, the focused constituent does not appear in its canonical, but in sentence final position (cf. Gabriel 2007, 2010). In (15), the contrastively focused direct object *un diario* 'a newspaper' appears after the indirect object, which is a deviation from the unmarked ordering dO-iO.

(15) (Context: Mary gives a magazine to her brother, doesn't she?)
María le=da a su hermano [un diario]$_{CF}$
M. CL=give:3.SG.PRS to her brother a newspaper
'María gives a newspaper to her brother'
(Gabriel 2010: 206)

This short overview on contrastive focus in Spanish clearly indicates that contrastive focus can be expressed by different strategies in Spanish, one of them being fronting. Above I made the observation that in Spanish the fronting of constituents can serve various functions, one of them being the expression of contrastive focus. The conclusion concerning the relation between contrastive focus and fronting is thus the following: Fronting can be used to express contrastive focus, but is not limited to this function; contrastive focus can be expressed by fronting but also by other means. Hence, the set of fronted and the set of contrastively focused constituents intersects.

In the literature one rarely finds statements on how tight the relation between fronting and contrastive focus is. For example, Bosque & Gutiérrez-Rexach (2009: 692ff.) discuss fronting as one way to encode contrastive focus. But one does not find any hint as to whether the authors assume that contrastive focus can only be expressed through fronting, nor whether fronting is restricted in any way. RAE (2009: 2986ff.) gives examples of contrastive foci which are not fronted, next to examples where the contrastive focus is fronted; yet no statement is made about the currency of fronted foci. In Rodríguez Ramalle (2005: 558), the relevant section is entitled: *El foco contrastivo o antepuesto* 'The contrastive or fronted focus'; although this would suggest a close tie between fronting and contrastive focus, the author does not comment on it in the section itself.[5]

In order to find out what role fronting plays in the encoding of contrastive foci in Spanish, one would have to look at corpus data or collect other data on speakers' preferred strategies to encode contrastive foci. In Section 4, an experiment will presented that has been conducted for this purpose. In the discussion of the results (Section 4.3), the results of this experiment will be compared with Gabriel (2007, 2010) and Adli (2011), which are other empirical studies on the encoding of contrastive focus in Spanish.

3 Secondary Predicates and information structure

The term *secondary predicate* refers to adjectives such as *tranquila* 'calm' in (16a.) and *cruda* 'raw' in (16b.). Semantically, these predicates describe the state of one of the verb's arguments: *tranquila* 'calm' describes the state of the subject *María* during the event denoted by the verb *respirar* 'breathe'; *cruda* 'raw' describes the state of the direct object *la carne* 'the meat' during the event denoted by the verb *comer* 'eat'.

(16) a. [María]$_i$ respiró [tranquila]$_i$ (Rodríguez Ramalle 2005: 265)
M. breath:3.SG.PST calm:F
'María breathed calm'

b. Luis come [la carne]$_i$ [cruda]$_i$ (Demonte 1991: 159)
L. eat:3.SG.PRS the meat raw:F
'Luis eats the meat raw'

[5] As concerns the fronting of contrastively focused secondary predicates two remarks are in place here. First, the literature which presents fronting as an option for the encoding of contrastive focus in Spanish does not mention any restrictions with respect to the syntactic functions that can undergo fronting. Second, native speakers of Spanish judge sentences as in (i) as grammatical, although very emphatic and/or literary (5 native speakers of peninsular Spanish; consulted in February 2012 in Córdoba, Spain). Thus, we must assume that the fronting of contrastively focused secondary predicates is an option in Spanish.

(i) *BORRACHO abrió la puerta (y no sobrio)*
drunk:M open:3.SG.PST the door and NEG sober:M
'He opened the door drunk and not sober'

Syntactically, the SPs in (16) are adjuncts, i.e. they are not subcategorized by the verb or any other element of the sentence. In both cases the SP could be omitted and the sentence would still be grammatical.
In this paper I am only concerned with SPs that are not subcategorized and that take the form of an adjective or a past participle. However the term *secondary predicate* is also used in the literature for subcategorized predicates (cf. (17)) and for predicates that do not have the form of an adjective or a past participle (cf. 18)).[6]

(17) a. Juan parece cansado
J. seem:3.SG.PRS tired:M
'Juan seems tired'
b. *Juan parece

(18) a. María salió riéndose
M. leave:3.SG.PST laugh:PRS.PTCP
'María left laughing'
b. Juan salió presidente de aquella reunión
J. leave:3.SG.PST president of that meeting
'Juan left this meeting as president'
(Rodríguez Ramalle 2005: 265f.)

The syntax and semantics of Spanish secondary predicates and the sentences in which they appear have been studied in great detail (cf. Hernanz 1988; Guemann 1990; Suñer 1990; Demonte 1991; Demonte & Masullo 1999; Hummel 2000; Gumiel 2008 and the references cited there). Aspects that have received less attention are (i) the information structure of sentences with secondary predicates and (ii) the syntactic behavior of secondary predicates in different information structural contexts: SPs as part of the focus or part of the background (if the SP is part of the focus one can further distinguish for example between narrow focus vs. sentence focus or between information focus vs. contrastive focus (cf. (1) and (2)).
With respect to the first aspect, Guemann (1990), Rodríguez Espiñeira (1992) and Porroche Ballesteros (1990) state that SPs have a strong affinity to focus. Guemann argues that in sentences with SPs, the SP is the obvious rhematic element and therefore it typically occurs in sentence final position and bears the main stress (cf. Guemann 1990: 200). In the same vein, Rodríguez Espiñeira (1992: 53) states that the SP expresses the most important information of the sentence. For Porroche Ballesteros (1990: 157) the secondary predicate is the constituent of the sentence with the highest rhematic value. Although these statements on the affinity of SPs with focus (or with being the rheme) are plausible, they are difficult to evaluate against actual empirical data. Obviously one can easily come up with a fully grammatical and also pragmatically suitable sentence where the SP is not focus, but part of the background (cf. the second and third mention of *borracho* 'drunk' in the mini-dialogue in (19)).

[6] The terminology in the Spanish descriptive tradition is not consistent in this respect. All such predicates, may they be adjuncts or complements are treated as *predicative complements*, see Palancar & Alarcón Neve (2007) for a discussion.

(19) - Ayer, Pepito volvió borracho a casa.
yesterday P. return:3.SG.PST drunk:M to home
'Yesterday Pepito came home drunk'
- ¿Y de dónde volvió borracho?
and from where return:3.SG.PST drunk:M
'And from where did he come home drunk?'
- [Volvió borracho]$_{BG}$ [del bar]$_{F}$
return:3.SG.PST drunk:M of.the bar
'He came home drunk from the bar'

In fact the above statements from the literature are not absolute, but rather refer to typical cases and describe tendencies. One way to verify them would be to analyze corpus data, i.e. to analyze the information structure of sentences with secondary predicates and see which position in the information structure the SP occupies. The prediction of the above authors would be that in the majority of the cases the SP would be part of the focus or even the only focused constituent. Such a study is still missing and given the difficulties of annotating the focus-background-partition in corpus data, it is obviously a very challenging task.
The relation between secondary predicates and information structure can also be looked at from a different angle. One could control the information structure of the sentence and analyze in which syntactic positions and also in which focus sensitive constructions the secondary predicate appears under different information structural conditions; e.g. sentences where the secondary predicate is the only focused constituent, sentences where the secondary predicate is part of a larger focused constituent (as in the case of VP focus), or sentences where the SP forms part of the background. It is this second perspective that I adopt in this paper. The information structural conditions and the syntactic functions that shall be considered are (i) contrastively focused secondary predicates in the context of direct objects (cf. (20)), (ii) contrastively focused secondary predicates in the context of locative adverbials, (iii) secondary predicates as part of the background, i.e. in the context of a contrastively focused direct object or a contrastively focused locative adverbial (cf. (21)) and (iv) SP in the context of a sentence focus (cf. (22)).

(20) [SP]$_{CF}$+dO
- Juanita pinta el armario calzada, ¿verdad?
J. paint:3.SG.PRS the wardrobe with.shoes.on:F right
'Juanita paints the wardrobe with shoes on, right?'
- No, Juanita pinta el armario [descalza]$_{CF}$.
NEG J. paint:3.SG.PRS the wardrobe barefoot:F
'No, Juanita paints the wardrobe barefoot'

(21) SP+[LOC]$_{CF}$
- Juanita trabaja empapada en el bosque, ¿verdad?
J. work:3.SG.PRS wet:F in the woods right
'Juanita works wet in the woods, right?'
- No, Juanita trabaja empapada [en el jardín]$_{CF}$.
NEG J. work:3.SG.PRS wet:F in the garden
'No, Juanita works wet in the garden'

(22) [...+SP+LOC]$_F$
- ¿Qué pasa aquí?
what happen:3.SG.PRS here
'What happens here?'
- [Juanita está trabajando empapada en el jardín]$_F$
J. be:3.SG.PRS work:PRS.PTCP wet:F in the garden
'Juanita is working wet in the garden'

The reason why I investigate contrastive contexts has been mentioned implicitly in the previous section: Spanish has several different strategies to express contrastive focus, but very few studies have analyzed which strategies are preferred. The additional stimuli with sentence focus serve to determine the unmarked word order, which is necessary for the interpretation of the results in the contrastive contexts.
As concerns the syntactic functions of the focused constituents, two specifications need to be made: First, SPs have been chosen because this work is part of a larger research on secondary predicates and information structure. Second, dOs and LOCs have been chosen because they are postverbal constituents like SPs and therefore provide a good basis of comparison and tell us something about the ordering of several postverbal constituents.

4 Empirical study

4.1 Method and setup

The data on the encoding of contrastively focused constituents was collected in a production experiment in which participants had to answer questions in relation to a visual stimulus. The experiment was conducted from February 6th to February 13th 2012 at the Universidad de Córdoba in Córdoba, Spain. The 36 participants were students at the Universidad de Córdoba, predominantly studying humanities: age, 18-24; sex, 30 female vs. 6 male; 33 grew up in Andalucía, three in other parts of Spain. All are monolingual native speakers of peninsular Spanish.
The experiment was carried out individually with each of the 36 participants. It consisted of four visual stimuli and for each stimulus the participants had to answer five questions. The course of the experiment was explained to the participants using one stimulus. After the explanation, the participants could practice with another stimulus. Only after this, the four stimuli which counted for the analysis were presented to the participants.
The stimuli were presented to the participants on slides on the screen. The questions were integrated as audio files in the slides and played by clicking on the respective icon on the slide. Although the participants did not maneuver through the experiment themselves, they nevertheless determined the pace of the experiment with their response time. The participants' answers were recorded and analyzed with respect to syntactic structure and encoding of information structure.
When showing the picture for the first time, additional information on the situation was given in written form (cf. Figure 1). The purpose of the written information is to introduce the acting character, to evoke the elements of the picture which are relevant for the questions and to minimize the participants' effort in searching the suitable lexical items when answering the questions. In order to avoid priming of a certain word order, the written information was not presented in sentence form, but loosely distributed over the picture (cf. Figure 1). On the level of syntactic functions, the elements that are profiled in the picture correspond to *subject* (*Juanita*), *verb* (*trabajar* 'work'), *secondary predicate* (*empapada* 'wet') and *locative adverbial* (*en el jardín* 'in the garden').

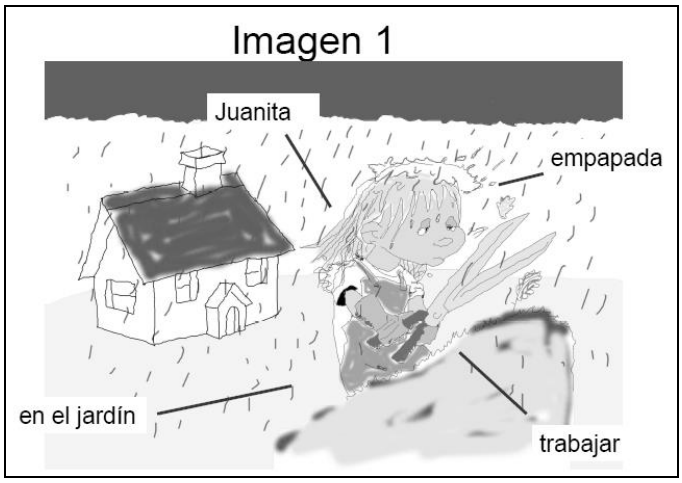

Figure 1: Stimulus (with additional written information)

After showing the picture with the additional information to the participants for about eight to ten seconds, the picture was shown again, but without the additional information. Instead, the questions that the participants had to answer were played by clicking on an icon in the picture. The questions were presented in audio in order to make the situation more authentic. After each question the participants had to give their answer and only after that the experimenter moved on to the next question. Once all five questions for a given stimulus were answered the experimenter moved on to the next stimulus, presenting again first the stimulus with the written information and only after that the stimulus without the information, but with the questions.
The focus-background-partition of the answers and the type of focus were controlled through the questions. For the above stimulus, the questions are given in Table 1 together with the focus-background-partition of the answer. In the case of the contrastive focus, the question contains false information, i.e. information that does not correspond to the situation described by the picture. This false information was corrected by the participants in their answers.

	Question	Focus structure answer
1	¿Dónde trabaja Juanita empapada? 'Where does Juanita work wet?'	$[LOC]_{F}$
2	Juanita trabaja seca en el jardín, ¿verdad? 'Juanita works dry in the garden, right?'	$[SP]_{CF}$
3	¿Qué pasa aquí? 'What happens here?'	$[sentence]_{F}$
4	¿Cómo trabaja Juanita en el jardín? 'How does Juanita work in the garden?'	$[SP]_{F}$
5	Juanita trabaja empapada en el bosque, ¿verdad? 'Juanita works wet in the woods, right?'	$[LOC]_{CF}$

Table 1: Questions and focus structure of answers (Stimulus 1)

In addition to stimuli where the second postverbal constituent (next to the secondary predicate) is a locative adverbial, the experiment also included stimuli where the second postverbal constituent is a direct object. Both structures, *S+V+SP+LOC* and *S+V+SP+dO*, were filled with two different lexicalizations resulting in the four stimuli mentioned above. Table 2 shows the lexical material in the four stimuli and the syntactic functions of the constituents. The elements in parentheses are the false items of information in the questions for contrastive focus.

	Lexicalization	Syntactic functions
1	*Juanita - trabajar - empapado (seco) - en el jardín (en el bosque)* Juanita - work - wet (dry) - in the garden (in the woods)	S+V+SP+LOC
2	*Juanita - pintar - descalzo (calzado) - el armario (el suelo)* Juanita - paint - barefoot (with.shoes.on) - the wardrobe (the floor)	S+V+SP+dO
3	*Pepito - abrir - borracho (sobrio) - la puerta (la ventana)* Pepito - open - drunk (sober) - the door (the window)	S+V+SP+dO
4	*Pepito - bailar - disfrazado (desnudo) - en la sala (en el aula)* Pepito - dance - disguised (naked) - in the living.room (in the classroom)	S+V+SP+LOC

Table 2: Stimuli

Note that the questions for the contrastive focus must include a certain ordering of the two postverbal constituents; in Table 1, the secondary predicate precedes the locative adverbial. In order to level a possible priming effect of the postverbal word order in the stimulus on the word order in the answer, the word order in the stimulus was varied as follows. Two versions of the experiment were made, the only difference between them being the word order of the contrastive focus questions. Within a given version of the experiment the word order was varied between the two lexicalizations of a given structure. In version A, for example, the question for the contrastive focus of the secondary predicate in the context of a direct object has the order SP-dO in the case of the first lexicalization (*pintar+calzado+el armario*) and the order dO-SP in the case of the second (*abrir+la puerta+sobrio*). In version B it is just the other way round. Varying the word order in this way assures that each participant sees each structure with both word orders (cf. Table 3; *X* stands for the second postverbal constituent (*LOC* or *dO*)).

Version	Contrastive focus	X=?	Lexicalization	Word order in the question
A	SP	dO	1	SP-dO
			2	dO-SP
		LOC	1	SP-LOC
			2	LOC-SP
	X	dO	1	dO-SP
			2	SP-dO
		LOC	1	LOC-SP
			2	SP-LOC
B	SP	dO	1	dO-SP
			2	SP-dO
		LOC	1	LOC-SP
			2	SP-LOC
	X	dO	1	SP-dO
			2	dO-SP
		LOC	1	SP-LOC
			2	LOC-SP

Table 3: Variation of word order in contrast questions

As mentioned above, the questions were presented in audio form. For this purpose, three monolingual native speakers of peninsular Spanish were recorded: a female speaker raised in the province of Cádiz, a male speaker raised in the province of Badajoz and a female speaker raised in the province of Salamanca. With respect to the contrastive focus questions, the speakers were instructed which constituent is doubted, i.e. which element is under the scope of *¿verdad?* 'right' and they were told to put a rather strong main stress on this element (indicated in (23) by the capital letters).

(23) a. Juanita trabaja SECA en el jardín, ¿verdad?
J. work:3.SG.PRS dry:F in the garden right
b. Juanita trabaja en el jardín SECA, ¿verdad?
J. work:3.SG.PRS in the garden dry:F right
'Juanita is working dry in the garden, right?'

As mentioned above, 36 persons participated in the experiment. The experiment involved four stimuli and for each stimulus five questions were asked. This amounts to a total of 720 answers (144 answers for stimuli with sentence focus, 288 answers for narrow information focus, and 288 answers for contrastive focus). Technical problems occurred during the recording of the answers of two participants; as a consequence a total of 7 answers could not be used for analysis (one for a stimulus with sentence focus, three for stimuli with narrow information focus, and three for stimuli with contrastive focus). Note that only a subset of the answers, namely those with contrastive focus and sentence focus, are relevant here and will be presented in the following section.

4.2 Results

In a production experiment the set of possible answers is not predetermined. As a consequence, the number of different types of answers produced by the participants may be quite high. In our experiment, the vast majority of answers have either the structure *S-V-SP-X* or the structure *S-V-X-SP*.[7] Since the presence or absence of the subject is not of interest here, I will only distinguish between three classes of answers: *(S)-V-SP-X*, *(S)-V- X- SP* and answers that do not pertain to one of theses two classes. Recall that three of the 288 answers for stimuli with contrastive focus could not be used for analysis due to technical problems during the recording. 269 out of the 285 remaining answers pertain to the first two classes, where both postverbal constituents (i.e. SP and dO or LOC) are realized as lexical XPs and in postverbal position (cf. examples (24) and (25)).

(24) (S)-V-SP-X
a. S-V-SP-X
(Context: Pepito dances disguised in the class room, right?)
No, Pepito baila disfrazado en la sala (P1_4.5)
NEG P. dance:3.SG.PRS disguised:M in the living.room
'No, Pepito is dancing disguised in the living room'
b. V-SP-X
(Context: Juanita paints barefoot the floor, right?)
No, pinta descalza el armario (P29_2.5)
NEG paint:3.SG.PRS barefoot the wardrobe
'No, she paints barefoot the wardrobe'

[7] During the explanation phase of the experiment the participants were instructed to use all the elements from the stimulus in their answers.

(25) (S)-V-X-SP

a. S-V-X-SP
(Context: Pepito opens sober the door, right?)
No, Pepito abre la puerta borracho (P2_3.2)
NEG P. open:3.SG.PRS the door drunk:M
'No, Pepito opens the door drunk'

b. V-X-SP
(Context: Pepito opens drunk the window, right?)
No, abre la puerta borracho (P29_3.5)
NEG open:3.SG.PRS the door drunk:M
'No, he opens the door drunk'

All answers that do not fall into one of these classes are lumped together under the label *other*. Examples of this type of answer are given in (26). In the example in (26a.), the contrastively focused secondary predicate is realized postverbally as a lexical XP while the direct object is realized as a clitic pronoun preceding the verb. In (26b.) the contrastively focused secondary predicate is realized postverbally, while the locative adverbial which is present in the stimulus is not expressed in the answer.

(26) other (than (S)-V-SP-X and (S)-V- X-SP)

a. X_{CL}-V-SP
(Context: Pepito opens sober the door, right?)
No, la=abre borracho (P29_3.2)
NEG CL=open:3.SG.PRS drunk:M
'No, he opens it drunk'

b. V-SP
(Context: Pepito dances naked in the living room, right?)
No, baila disfrazado (P29_4.2)
NEG dance:3.SG.PRS disguised:M
'No, he dances disguised'

The first important result of the experiment is the total absence of fronted contrastive foci. Recall from the previous section that 36 subjects were presented eight contrastive contexts each; none of them fronted a contrastively focused constituent in any of the eight contrastive contexts. Given the absence of fronted foci I will concentrate on the order of the two postverbal constituents (SP and X). (In Section 4.3 I will come back to the absence of fronted foci in the data.)
Starting with contrastively focused secondary predicates, Table 4 shows their syntactic position in the context of a locative adverbial and of a direct object.

	(S)-V-SP-X	(S)-V-X-SP	
X=LOC	44 (67.69%)	21 (32.31%)	65 (100%)
X=dO	22 (32.84%)	45 (67.16%)	67 (100%)

Table 4: Contrastively focused secondary predicates

If the second postverbal constituent is a locative adverbial, contrastively focused SPs appear more often in prefinal than in final position. If the second postverbal constituent is a direct object, the preference is just the other way round: The contrastively focused secondary predicate appears more often in final position than prefinal position. In both cases the preferences are quite robust.

The syntactic position of a contrastively focused secondary predicate thus clearly depends on the syntactic function of the second postverbal constituent. The percentage of contrastively focused secondary predicates in final position is much higher if the second constituent is a direct object and not a locative adverbial (67.16% vs. 32.31%).
The syntactic positions of contrastively focused locative adverbials and direct objects have only been tested in the context of secondary predicates. No data are available on (i) contrastively focused locative adverbials in the context of direct objects and (ii) contrastively focused direct objects in the context of locative adverbials. In the context of secondary predicates, however, contrastively focused locative adverbials and direct objects tend to appear in different syntactic positions. Contrastively focused locative adverbials appear much more often in final than in prefinal position (cf. Table 5), while contrastively focused direct objects appear much more often in prefinal than in final position (cf. Table 6).

(S)-V-SP-LOC	(S)-V-LOC-SP	
43 (62.32%)	26 (37.68%)	69 (100%)

Table 5: Contrastively focused locative adverbials

(S)-V-SP-dO	(S)-V-dO-SP	
21 (30.88%)	47 (69.12%)	68 (100%)

Table 6: Contrastively focused direct objects

To sum it up, the contrastively focused postverbal constituents clearly differ with respect to their preferred syntactic position: Contrastively focused locative adverbials (in the context of SP) mainly appear in final position.

(27) SP-$[LOC]_{CF}$ > $[LOC]_{CF}$-SP

Contrastively focused direct objects (in the context of SP) preferably appear in prefinal position.

(28) $[dO]_{CF}$-SP > SP-$[dO]_{CF}$

Contrastively focused secondary predicates preferably appear in prefinal position in the context of locative adverbials and in final position in the context of direct objects.

(29) a. $[SP]_{CF}$-LOC > LOC-$[SP]_{CF}$
b. dO-$[SP]_{CF}$ > $[SP]_{CF}$-dO

Let us now look at the same data from a slightly different perspective and ask the following question: What impact does contrastive focus have on the ordering of two given postverbal constituents? In order to give an answer to this question we need to make two comparisons: First we need to compare the ordering of SP and LOC where the SP is contrastively focused with the ordering of SP and LOC where the LOC is contrastively focused. Second we need to compare the ordering of SP and dO where the SP is contrastively focused with the ordering of SP and dO where the dO is contrastively focused.
As concerns the ordering of secondary predicate and locative adverbial, the data in Table 7 show that the ordering does not depend on which constituent is focused. Regardless of whether SP or LOC is the focus, there is a clear preference for the ordering SP-LOC.

	(S)-V-SP-LOC	(S)-V-LOC-SP	
$[SP]_{CF}$	44 (67.69%)	21 (32.31%)	65 (100%)
$[LOC]_{CF}$	43 (62.32%)	26 (37.68%)	69 (100%)

Table 7: Ordering of SP and LOC in contrastive contexts

Similarly, the ordering of SP and dO does not depend on which constituent is focused. Both with the SP and with the dO as the focused constituent, there is a clear preference for the ordering dO-SP.

	(S)-V-SP-dO	(S)-V-dO-SP	
$[SP]_{CF}$	22 (32.84%)	45 (67.16%)	67 (100%)
$[dO]_{CF}$	21 (30.88%)	47 (69.12%)	68 (100%)

Table 8: Ordering of SP and dO in contrastive contexts

The results show that constituents that have their unmarked position after the verb also appear postverbally when contrastively focused. Whether the contrastively focused constituent is in final or in prefinal position depends on the syntactic function of the constituents involved; there is no preferred position for the contrastive focus (in the sense of *final* vs. *prefinal*) independently of the syntactic functions of the constituents involved.
Interesting parallels become apparent, if one compares the orderings including a contrastive focus with the orderings in the context of a sentence focus. Sentence focus is triggered by the question *¿Qué pasa aquí?* 'What happens here?'. In this context, the ordering again depends on the syntactic functions of the constituents involved (cf. Table 9). In the case of a secondary predicate and a locative adverbial, the preferred ordering is SP-LOC. In the case of a secondary predicate and a direct object, the preferred ordering is dO-SP. The preferences are again quite robust.

	(S)-V-SP-X	(S)-V-X-SP	
X=LOC	47 (68.12%)	22 (31.88%)	69 (100%)
X=dO	11 (15.28%)	61 (84.72%)	72 (100%)

Table 9: Sentence focus

If we compare the preferred orderings in the context of a sentence focus with the preferred orderings in the context of a contrastive focus we see that the preferences are the same: The secondary predicate appears more often in prefinal position in the context of a locative adverbial and more often in final position if the second postverbal constituent is a direct object.

	context		
	$[SP]_{CF}$	$[X]_{CF}$	sentence focus
X=LOC	SP-X	SP-X	SP-X
X=dO	X-SP	X-SP	X-SP

Table 10: Preferred orderings in three different contexts

The last aspect of the results that shall be mentioned concerns a possible priming effect by the word order in the contrastive focus questions. Recall from Section 4.1 that the word order in the stimuli was varied: each contrastive stimulus was presented equally often with the order SP-X and the order X-SP. Given this variation, any possible priming (or echo effect) would thus be leveled in the results. Although it is not relevant for the interpretation of our data, it is nevertheless interesting to verify for methodological reasons whether such a priming effect

can be observed in the data. Table 11 shows that the order (S)-V-SP-X appears much more often if the stimulus has the order S-V-SP-X and the order (S)-V-X-SP appears much more often if the stimulus has the order S-V-X-SP. This suggests that the word order in the stimulus does have an impact on the word order in the answer.

		(word order) answer		
		(S)-V-SP-X	(S)-V-X-SP	
(word order) stimulus	S-V-SP-X	93 (69.40%)	41 (30.60%)	134 (100%)
	S-V-X-SP	37 (27.41%)	98 (72.59%)	135 (100%)

Table 11: Word order in stimulus and word order in answer

4.3 Discussion

In Section 2 we have seen that fronting is not the only formal means to express contrastive focus. Nevertheless, the total absence of fronted contrastive foci in our data is a striking result. Especially since the literature on fronting in Spanish generally does not suggest that fronting is restricted in any way that is relevant for our experiment.[8] However, the absence of fronted contrastive foci in our data is less surprising once we consider it against the background of empirical studies on the expression of contrastive focus in Spanish, such as Gabriel (2007, 2010) and Adli (2011).

Gabriel (2007, 2010) conducted a production experiment similar to the one presented here. Participants had to answer questions related to a visual stimulus. In contrastive contexts the question contained information that did not correspond to the situation depicted in the stimulus. Gabriel (2007) and Gabriel (2010) used basically the same experimental design but applied it on different groups of participants.

Gabriel (2007) collected data from 18 participants; 14 from Spain, one from El Salvador, one from Columbia, one from Mexico and one from Argentina (cf. Gabriel 2007: 269). Table 12 shows the strategies used by the participants to express contrastively focused locative adverbials and direct objects.[9] As in the case of our data, expressing the focus constituent *in situ* is the preferred strategy. Clefts are attested, but only play a marginal role. Finally, note the total absence of fronted foci.

	in situ	*p-movement*	cleft	fronting	other	
S+V+dO+$[LOC]_{CF}$	18		0	0	0	18
S+V+$[dO]_{CF}$	16		1	0	1	18
S+V+$[dO]_{CF}$+iO	12	2	1	0	3	18

Table 12: Contrastively focused constituents (Gabriel 2007: 285)

In Gabriel (2010) a total of 50 speakers from Argentina were tested; 25 speakers from Buenos Aires and 25 from Neuquén. In Table 13 the two groups of speakers are lumped together (unlike Gabriel's (2010) presentation of the data).[10]

[8] The only restriction in the literature consulted is Gutiérrez-Bravo's (2008: 377) statement that clefting is the typical way to encode contrastive focus in Spanish; but this does not imply that fronting is not used at all.

[9] The term *in situ* (used in the table) refers to cases where the constituent is in its unmarked base position. The term *p-movement* (for *prosodically motivated movement*) refers to movement operations that ensure that the focus constituent ends up in sentence final position where it receives prosodic prominence (cf. Zubizarreta 1998: 124)

[10] In my presentation of the results from Gabriel (2010) I distinguish the same strategies as he does in Gabriel (2007); thereby I diverge slightly from the style of presentation of the results in Gabriel (2010).

	in situ	*p-movement*	cleft	fronting	other	
S+V+[dO]$_{CF}$+LOC	25	1	5	0	19	50
S+V+[dO]$_{CF}$	46		3	1	0	50
S+V+[dO]$_{CF}$+iO	17	8	4	1	20	50

Table 13: Contrastively focused constituents (Buenos Aires & Neuquén; based on Gabriel (2010: 211-218))

The results from Gabriel (2010) resemble those from Gabriel (2007): *In situ* is the preferred position for contrastively focused constituents. Fronting was used by the participants as a strategy, but only very rarely (an example produced in the experiment is given in (30)).

(30) a. (Context: Mary gives a magazine to her brother, doesn't she?)
b. No. [Un diario]$_{CF}$ le=da.
NEG a newspaper CL=give:3.SG.PRS
'No, she gives him a newspaper'
(Gabriel 2010: 205)

Clefting was used more often than fronting, but still only played a marginal role. Among the answers labeled *other,* there are many cases where the final constituent (LOC or iO) is omitted or expressed as a clitic in preverbal position. In summary, Gabriel (2007) and Gabriel (2010) show that fronting is a dispreferred strategy to express contrastive focus in Spanish.
In his experiment, Adli (2011) collected judgments on auditively presented stimuli. He collected judgments on various structures containing a contrastively focused direct object in the context of a locative adverbial as a second postverbal constituent. In the judgment task the participants had to give stimuli a score between 0 and 100 (where 100 is the best score possible) (cf. Adli 2011: 126). The types of stimuli that are relevant in the present context are those where the contrastively focused direct object is fronted, in *in situ* position or in sentence final position (cf. (31)).

(31) a. [dO]$_{CF}$-V-S-LOC fronting
No, no la verdura. EL CHULETÓN comió
NEG NEG the vegetables the steak eat:3.SG.PST
Miguel en el restaurante.
M. in the restaurant
'No, not the vegetables. Miguel ate the steak in the restaurant.'
b. S-V-[dO]$_{CF}$-LOC *in situ*
No, no los pantalones. Laura compró LA CAMISA en Zara.
NEG NEG the trousers L. buy:3.SG.PST the shirt at Zara
'No, not the trousers. Laura bought the shirt at Zara.'
c. S-V-LOC-[dO]$_{CF}$ *p-movement*
No, no el bolero. Ana cantó en el coro LA TRAVIATA.
NEG NEG the bolero A. sing:3.SG.PST in the choir la traviata
'No, not the bolero. Ana sang La Traviata in the choir.'
(Adli 2011: 132; modified)

The judgments for these three types of stimuli are given in Table 14. The stimulus with the direct object *in situ* received the highest mean score, followed by the stimulus with the direct object in final position. The stimulus with the fronted contrastive focus constituent received the lowest mean score of the three stimuli.

ordering	strategy	mean score	standard deviation
S-V-[dO]$_{CF}$-LOC	*in situ*	74.6	21.0
S-V-LOC-[dO]$_{CF}$	*p-movement*	69.8	20.0
[dO]$_{CF}$-V-S-LOC	fronting	61.8	18.3

Table 14: Judgments for different expressions of contrastive focus (cf. Adli 2011: 133)

Adli's (2011) results are in line with our results and Gabriel's (2007, 2010) results: the fronting of a contrastively focused postverbal constituent is dispreferred compared to expressing the constituent in postverbal position. Under the assumption that speakers only produce their preferred option, it is not surprising that little or no fronting occurs in a production experiment.

If we take together the four empirical studies - Gabriel (2007, 2010), Adli (2011), and our own study - one main conclusion is that contrastively focused constituents tend to appear in their *in situ* position. This means in turn that both fronting and *p-movement* are dispreferred strategies for contrastive focus in Spanish. Why may this be? One way to approach this question is to model the results in the framework of Optimality Theory (OT). Both Gabriel (2007, 2010) and Adli (2011) take this path, but model their results in different versions of OT. In the following I will briefly present the relevant constraints, as proposed in Gabriel (2007, 2010). However, I will not develop a ranking of these constraints based on my data.

On a purely descriptive level, the frequency of the three strategies *fronting*, *p-movement* and *in situ* shows that the strategies involving movement of focused constituents are dispreferred. In OT one important group of constraints, namely the faithfulness constraints, evaluates the identity between the input and the output. To illustrate this, I take a look at a contrastively focused SP in the context of a locative adverbial. Based on the results from the ordering in unmarked contexts (= sentence focus), one may assume that the input is a sequence where SP precedes LOC.

(32) Input for [SP]$_{CF}$+LOC: S-V-[SP]$_{CF}$-LOC

If we compare this input to the three candidates in question, namely *fronting*, *p-movement* and *in situ*, we see that only in the case of *in situ* does the input correspond to the output.

(33) 3 output candidates for [SP]$_{CF}$+LOC:

S-V-[SP]$_{CF}$-LOC	*in situ*
[SP]$_{CF}$-V-S-LOC	*fronting*
S-V-LOC-[SP]$_{CF}$	*p-movement*

Although this representation captures the descriptive generalization from the data, namely that movement is avoided, it is nevertheless too simplistic.

The first refinement that needs to be made concerns the nature of the input. In OT syntax the input is not a syntactic representation or even an ordering of syntactic functions (e.g. S-V-SP-LOC), but only contains lexical heads and their argument structure (cf. Grimshaw 1997: 375-376; Kager 2010: 351). In order to understand how the three candidates can be evaluated based on such an input we must have a closer look at the relevant constraint, namely STAY. In Grimshaw (1997; cf. also Kager 2010: 351) the constraint is defined as "Trace is not allowed". What is evaluated is a chain of an element and its traces at the level of surface structure, and each trace causes one violation of the constraint.

Following Zubizarreta's (1998) assumption that *fronting* and *p-movement* involve two different types of movement, Gabriel (2007: 240) distinguishes between two types of movement constraints and consequently splits up Grimshaw's (1997) STAY-constraint:

(34) Splitting of STAY-constraint (Gabriel 2007: 240)
a. *COPY: No copies
b. STAY-Φ: No chain external material

*COPY punishes copies (or traces, in Grimshaw (1997)) that remain in base positions after a constituent moves (cf. Gabriel 2007: 240); *COPY is thus linked to derivational economy. STAY-Φ punishes the type of movement involved in *p-movement*: Gabriel (2007: 170) proposes that in cases of *p-movement* as in (35), the direct object *el diario* 'the newspaper' is realized under the head *T*, together with the verb *compró* 'bought'.

(35) Compró el diario [María]$_F$
buy:3.SG.PST the newspaper M.
'María bought the newspaper'

Gabriel (2007: 169f.) assumes that the realization of the direct object under T is possible, because the direct object incorporates into the verb, just as Spanish clitics do. Despite the incorporation, *el diario* is material that is external to T. The STAY-Φ constraint precisely evaluates and punishes the presence of such external material.
Given that movement is punished, one might wonder what kind of constraints motivates the use of strategies that do involve movement (or increase the number of movement operations), namely *fronting* and *p-movement*. Since in our data only *p-movement*, but no fronting occurred, we shall first look at *p-movement* and the constraint favoring it. Given our experimental setup, *p-movement* may occur only in two contexts in our data: (i) a contrastively focused direct object next to a secondary predicate ([dO]$_{CF}$+SP) and (ii) a contrastively focused secondary predicate next to a locative adverbial ([SP]$_{CF}$+LOC). In both cases *p-movement* results in the sentence final position of the contrastively focused constituent. Just as in the case of the focused subject in final position, one would have to assume that chain external material elements is realized under T and that STAY-Φ is violated.
If we first take a look at [dO]$_{CF}$+SP we see that *in situ* is preferred over *p-movement* (cf. Table 15). Nevertheless, a considerable number of participants placed the contrastively focused direct object in sentence final position, thus choosing *p-movement*.

in situ (S)-V-[dO]$_{CF}$-SP	*p-movement* (S)-V-SP-[dO]$_{CF}$	
47 (69.12%)	21 (30.88%)	68 (100%)

Table 15: *In situ* and *p-movement* for [dO]$_{CF}$+SP

In the case of [SP]$_{CF}$+LOC, participants also prefer *in situ* over *p-movement*. But as Table 16 shows, a considerable number of participants still employ *p-movement* as a strategy.

in situ (S)-V-[SP]$_{CF}$-LOC	*p-movement* (S)-V-LOC-[SP]$_{CF}$	
44 (67.69%)	21 (32.31%)	65 (100%)

Table 16: *In situ* and *p-movement* for [SP]$_{CF}$+LOC

As mentioned above, *p-movement* has been introduced by Zubizarreta (1998: 124) as a movement operation that ensures that the focused constituent ends up in a position where it can receive prosodic prominence via a nuclear stress rule. In Gabriel (2007, 2010) *p-movement* is favored (or motivated) by an alignment constraint. Alignment constraints evaluate the correspondence between the edges of domains. The constraint that is relevant in the present context, ALIGNFOC, evaluates the alignment of the right edge of the focus

constituent with the right edge of the intonation phrase (IP) (Gabriel 2007: 235; cf. also Gussenhoven 2004). In the case of a simple declarative sentence the edges only align if the focus constituent is in sentence final position (cf. (36) vs. (37)).

(36) $[SP]_{CF}$+LOC and *p-movement*: right edges of focus XP and IP align
a. (Context: P. dances naked in the living room, right?)
No, Pepito baila en la sala disfrazado.
NEG P. dance:3.SG.PRS in the living.room disguised:M
'No, Pepito is dancing disguised in the living room'
b. No, Pepito baila en la sala disfrazado.
[ ]$_{CF}$
.....)$_{IP}$

(37) $[SP]_{CF}$+LOC and *in situ*: right edges of focus XP and IP do not align
a. (Context: P. dances naked in the living room, right?)
No, Pepito baila disfrazado en la sala.
NEG P. dance:3.SG.PRS disguised:M in the living.room
'No, Pepito is dancing disguised in the living room'
b. No, Pepito baila disfrazado en la sala.
[ ]$_{CF}$
.....)$_{IP}$

Note that the obedience of ALIGNFOC does not yet guarantee that the sentence main stress is in sentence final position. A further constraint, namely STRESSFOCUS, needs to be obeyed; the constraint evaluates whether or not the focus constituent is the prosodically most prominent constituent, and is violated if this is not the case (Gabriel 2007: 235). In the above examples STRESSFOCUS would thus be violated if the sentence's main stress would not fall on *disfrazado* 'disguised', but on any other constituent.
Although the results do not involve cases with fronted contrastive foci, we shall nevertheless briefly consider the relevant constraint.[11] Gabriel (2007: 244) assumes that SpecTP/FOC is the constraint responsible for the fronting of contrastive foci. This constraint is satisfied only if the contrastive focus appears in the preverbal position SpecTP. As concerns the grounding of this constraint, it seems rather difficult to find any motivation that is based on general cognitive principles (as is often the case with the grounding of markedness or alignment constraints).
At the end of this discussion I shall hint at one possible problem linked to some of the constraints proposed by Gabriel (2007, 2010). After the experiment described above, some of the participants were asked what they think of the various strategies and especially of the fronting of postverbal constituents. Although the responses have not been systematically collected, two types of responses to examples with fronted constituents clearly recurred: (i) fronting sounds "literary", "old fashioned", "as in a play", "as old people talk" and (ii) it would require a context with much more emotional involvement in order to use fronting as a strategy. Both types of responses indicate how speakers restrict the contexts in which fronting is an option for them. Neither seems to be linked to Gabriel's (2007, 2010) "pro-fronting

[11] There are two reasons why we shall consider the constraint that favors fronting: The first reason is linked to a basic assumption about the nature of constraints in OT, namely that all constraints are part of universal grammar and therefore part of the grammars of all speakers of natural languages (cf. Kager 2010: 11). This means in turn that even those constraints that seem to be irrelevant for a given speaker (based on his/her output) are part of the speaker's grammar; they are simply not active because they are ranked relatively low in the constraint ranking hierarchy. The second reason is an empirical one: focus fronting does occur in Gabriel's (2010) data; fronted foci receive judgment scores in Adli (2011) that are not much below those of *in situ* and *p-movement*; and according to the literature discussed in Section 2, fronting is a possible and fully grammatical means to encode contrastive focus in Spanish.

constraint" SpecTP/FOC or anti-fronting constraint *COPY. The question arises if and how such restrictions, which are reflected by the above metagrammatical statements and which should be observable in corpus data and in systematically collected judgment data, shall be integrated in a constraint based model. One possible option would be to formulate context sensitive constraints, e.g. *COPY_1 and *COPY_2. Depending on the context, *COPY is ranked either above or below SpecTP/FOC.

5 Conclusion

In this paper I have presented the results from a production experiment on the expression of contrastive focus in Spanish involving the treatment of secondary predicates. The most important result is that contrastively focused secondary predicates preferably appear *in situ*. This is also the preferred position for contrastively focused locative adverbials and direct objects. Another striking result is the complete absence of fronting as a strategy to encode contrastively focused constituents. In the discussion I have compared these results with those of other empirical works on contrastive focus in Spanish, namely Gabriel (2007, 2010) and Adli (2011), who show that fronting is a dispreferred strategy to encode contrastive focus in Spanish; their results are thus fully compatible with mine.
According to most of the consulted literature on Spanish, fronting is a fully grammatical means to encode contrastive focus. Against this literature on fronting and contrastive focus, the results from empirical studies are instructive in yet another way: the literature does not suggest that fronting is restricted in any way that might predict its absence in our data. Empirical studies thus make an important contribution as they show the status of fronting among the various strategies to encode contrastive focus in Spanish.

6 References

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