4. Word Order and Information Structure

In this chapter I discuss how information structure considerations (namely, focus and topicalization) modify the unmarked word order attested in Spanish in general and in Mexican Spanish in particular. The interaction between information structure and word order has been dealt with extensively in the OT literature, and so in this chapter I concentrate on two specific issues. The first one is to show how word order variation resulting from focalization in Mexican Spanish can be readily accounted for under the proposal developed in the previous chapter, on the one hand, and on the other, that the resulting analysis is consistent with previous optimality theoretic work on this area. The second issue relates to how topicalization in Mexican Spanish provides further support for the notion of the Pole, and for an analysis that appeals to this notion to explain word order phenomena. Specifically, I show how my proposal explains why the relative order of multiple topics in the left periphery is dependent on their semantic role.

4.1 Perturbations of the unmarked word order

Perturbations of the unmarked word order for different classes of predicates in declarative sentences in Spanish are widely attested, and this phenomenon has received considerable atention both in traditional grammars (see, for example, Gili y Gaya 1961) and in the theoretically-oriented literature (e.g. Bolinger 1954-55, Hatcher 1958, Meyer 1972, Contreras 1976, Silva-Corvalán 1983, Fant 1984, Vallduví 1992, Casielles-Suárez 1995, Zubizarreta 1998, *inter alia*). Some examples

are presented below. The transitive sentences (1a-b) do not display the unmarked SVO word order, and the subjects of psych and unaccusative predicates in (1c) and (1d), respectively, appear in the preverbal position, contrary to what is observed in the unmarked case. The free translations of these examples are only meant to convey their approximate translation to English, and not their structural equivalence to the corresponding English forms (see §4.3 below).

(1) a. Ayer compró Juan el periódico. Adv V S O
yesterday bought Juan the newspaper
'Yesterday Juan bought the newspaper.'

b. El periódico lo compró Juan. O V S
the newspaper ACC-CL *bought Juan*
'The newspaper, John bought it .'

c. Los chocolates le gustan a Juan. S V IO
the chocolates DAT-CL *like*.3p *to Juan*
' Chocolate, Juan likes.'

d. Tu hermano llegó. S V
your brother arrived
'Your brother arrived.'

The standard diagnostic for determining that the word orders in (1) correspond to marked word orders is to test whether they can be felicitously uttered in an out-of-the-blue context or sentence focus context, as answers to questions like '*what's been happening?*' or '*what happened?*'. All the sentences in (1) are infelicitous in such a context.

Since the earliest theoretical works on Spanish listed above, perturbations of unmarked word order like those in (1) have been linked to information structure (focus, topicalization, discourse prominence, etc.). It is not possible to review in any detail all the different analyses of these perturbations that have been proposed in the literature. Rather, my working assumption will be that what all these examples have in common is that the preverbal XP corresponds to a topic, which is followed by one or more focal elements (see Vallduvi 1992, Zubizarreta 1998, 1999).[1] Consequently, my analysis of the perturbations of the unmarked word order in (1) relies on the topic/focus articulation.

The relation between word order and information structure has been widely discussed in the OT literature (Legendre et. al. 1995; Samek-Lodovici 1996; Costa 1998, 2001; Grimshaw and Samek-Lodocivi 1998; Choi 1999, *inter alia*), particularly with respect to focalization. These analyses highlight the fact that OT is an ideal framework for dealing with word order permutations induced by information structure considerations and their relation to "optionality".

In representational frameworks like GB word order permutations that do not result in truth-conditional differences are mostly unproblematic. To the extent that sentences like those in (1) meet a set of well-formedness conditions, they can simply

[1] These are not the only possible cases, of course. At the very least Spanish also shows cases where non-focal material (i.e. material that is already part of the common ground) does not undergo fronting to the left periphery, but rather stays in the post-verbal field (the *tail* in Vallduví 1992) and cases of multiple topicalization. I will have very little to say about the former case, which I leave open for future investigation. Multiple topicalization I will analyze in detail in the final subsection of this chapter.

be thought of as alternative options (subject to pragmatic considerations) for expressing the same truth-conditional content of the corresponding cases that display the canonical word order. With the development of notions like Economy of Movement and Economy of Structure, central notions for both Minimalism and OT syntax, optionality becomes a serious problem, though. If movement takes place exclusively to satisfy conditions on derivations or representations, then it can never be optional, strictly speaking. As such, either word order permutations like those in (1) are not optional or they directly falsify the hypothesis of Economy of Movement.

Most OT literature on this issue holds that word order permutations induced by information structure are not optional (Samek-Lodovici 1996; Costa 1998; Grimshaw & Samek-Lodovici 1998; Choi 1999), but rather result from the need to accommodate conflicts between the syntactic requirements that derive the unmarked word order and a number of discourse requirements codified as universal constraints. OT analyses capitalize on two properties of this framework to flesh out the idea that optionality is only apparent. On the one hand, in OT the constraints that regulate the syntax and those that relate to discourse considerations are not in different levels of representation/well-formedness evaluation. Rather, EVAL considers a set of candidates with respect to both sets of constraints simultaneously. As a result, the interaction between syntax and information structure can be captured directly. On the other hand, sentences that display the same truth-conditional properties but different word orders can be characterized in OT as optimal outputs for *different* inputs, under the assumption that features conditioned by discourse contexts (such as [topic],

[focus]) are represented in the input. In other words, if SVO and OVS are both grammatical sentences in a language, then SVO is the optimal realization of an input *x* and OVS is the optimal realization of an input *y*, where the sets of discourse features of *x* and *y* are distinct. The ranking of constraints that are sensitive to the discourse features represented in the input determine which is the optimal candidate in each case.[2]

In what follows, I adopt the basic conclusions of the Optimality-theoretical analyses of word order and information structure cited above. However, I argue that the notion of the Pole is crucial for understanding the relevant word order facts in Spanish. For the purpose of developing the analysis I first consider focus and its analysis in the section that follows. Topicalization is addressed in section §4.3. After presenting the basic analysis of topicalization, I address the interaction between topics and foci, and I conclude this chapter with the analysis of multiple topicalization.

4.2 Focus

The precise characterization of focus has been extensively debated in the literature, and many problematic issues remain to be solved. Here I simply assume the characterization of focus proposed in Halliday (1967), Rochemont (1986) and Kiss

[2] This non-optionality approach to word order, however, has been challenged in work by Gereon Müller (see for example Müller 1999), based on data from German which, one should acknowledge, is considerably more complex than the data analyzed by the proponents of non-optionality. In the analysis that follows I will not take a strong stance on this debate. I will adopt the non-optionality approach as a working hypothesis, but I remain neutral with respect to the issue of whether or not word order variation can be truly optional in some cases.

(1998). Terminological issues apart, these analyses propose that there are two fundamentally different kinds of focus, *contrastive focus* and *presentational focus*. Contrastive focus expresses a quantification-like operation which involves exhaustive identification on a set of entities.[3] As noted in Kiss (1998), in terms of its semantics the constituent that corresponds to the contrastive focus represents the value of the variable bound by an abstract operator expressing exhaustive identification. An example from Hungarian is presented in (2).[4]

(2) HUNGARIAN
Tegnap este **MARINAK** mutattam be Pétert.
last night Mary.DAT *introduced*-I PERF *Peter*.ACC
'It was TO MARY that I introduced Peter last night.' (Kiss 1998: 247)

Example (2) expresses the exhaustive identification characteristic of contrastive focus, since it means that of set of individuals present in the domain of discourse, it was Mary and no one else that Peter was introduced to by the speaker. Halliday (1967) further proposes a definition of contrastive as "contrary to some predicted or stated alternative." This can be most clearly observed in so-called correction contexts, such as the one below (taken from Schwarzschild 1999). I assume that this is one of

[3] Kiss (1998: 245) (who uses the term *identificational focus* instead of *contrastive focus*) defines it as follows: "(a contrastive) focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is defined as the exhaustive subset of this set for which the predicate phrase actually holds"

[4] I represent presentational foci in small caps and contrastive foci in small caps in boldface. As in Kiss (1998), these various diacritics indicate neither pitch accent nor differences in pitch accent.

the pragmatic readings of contrastive focus that follows from its expression of exhaustive identification.

(3) a. John's mother voted for Bill.
b. No, she voted for **JOHN**.

On the other hand, presentational focus simply corresponds to information that is not part of the common ground (the common ground being roughly the information shared by the speaker and the hearer). Consider the Hungarian example in (4).

(4) HUNGARIAN
Tegnap este be mutattam Pétert MARINAK.
last night PERF *introduced*-I *Peter*.ACC *Mary*.DAT
'Last night I introduced Peter TO MARY. (Kiss 1998: 247)

In contrast with (2), the presentational focus in (4) does not express exhaustive identification. Consequently, (4) does not imply that *Mary* was the only person that *Peter* was introduced to by the speaker. It merely presents *Mary* as "new" information that is not part of the common ground.[5] In relation to the correspondence between presentational focus and "new" information, Halliday (1967) suggests that presentational foci correspond to the constituent in the answer to a *wh*-question that corresponds to the *wh*-operator in the question, as in (5). This is a standardly accepted

[5] The label "new information" is somewhat misleading (hence the scare quotes). As noted in Vallduví (1992) and Lambrecht (1994), what is new (in terms of information structure) about *Mary* in cases like (4) is its relation with the rest of the proposition, not the referent of *Mary* itself. I refer the reader to these works for details.

diagnostic for presentational foci in other analyses that postulate the existence of two kinds of focus (Kiss 1998, Zubizarreta 1998), and I will make use of it in what follows.

(5) a. Who screamed?
b. JOHN screamed.

Languages can distinguish these two types of foci in various ways (syntactically, morphologically and intonationally) but the syntactic contrast observed in Hungarian examples above is particularly illustrative. As discussed in Kiss (1998), contrastive foci in this language must appear in the immediate preverbal position, as in (2). However, presentational foci (*information focus* in Kiss' terminology) are not subject to this restriction and typically appear in the post-verbal field instead, as in (4). There are languages where the formal distinction between these two types of foci is not just distributional. Korean, for example, further encodes these two different kinds of foci morphologically (see Choi 1999: 88-90). Also, Zubizarreta (1998) claims that Spanish distinguishes contrastive and presentational foci intonationally (see also Silva-Corvalán 1983 and Fant 1984), although clearly more experimental research is required to settle this issue.

However, there do not appear to be absolute cross-linguistic correlations between the two kinds of foci and the way that they are formally marked. For instance, in Hungarian contrastive foci have a fixed position and presentational foci show a fairly free distribution, but the exact opposite situation is attested in Peninsular Spanish, as

we will see shortly. Rather, it seems that the differences that hold cross-linguistically are interpretive and pragmatic in nature. As noted in Kiss (1998), contrastive foci take scope, but presentational foci do not; presentational focus can project, but contrastive focus cannot. Also, as noted in Gundel (1999), every sentence has a presentational focus (see also Vallduví 1992 and Lambrecht 1994), but not every sentence has a contrastive focus. Accordingly, although I make use of word order diagnostics for distinguishing theses two types of focus in Spanish, the reader is asked to keep in mind that no claim is made here as to whether these word order properties hold in other languages.

A final note on terminology is relevant here. When the focus corresponds to a single argument of the verb, as in (2-5), it is usually referred to as a *narrow focus*, a term I adopt in the analysis below. However, (descriptively, at least) the focus can correspond to a constituent larger than an argument, as in cases of VP, IP or sentence focus. In what follows I use the term *focus domain* (Lambrecht 1994) to refer to these cases.

4.2.1 Focus in Spanish

The analysis of focus that I develop concentrates on presentational focus and not on contrastive focus, for reasons to be outlined in what follows. For the purpose of defining the set of data that the analysis deals with, in this subsection I briefly describe the differences in word order between presentational and contrastive focus in Spanish.

In Spanish, focus of the subject often has very visible effects, since a constituent which occurs preverbally in the unmarked case, occurs instead in the post-verbal field. This phenomenon is termed (free) subject inversion (Bolinger 1954-55, Contreras 1976, Torrego 1984, Lambrecht 1994, Ordóñez 1998, Zubizarreta 1998). This holds across different varieties of Spanish. Some examples are presented in (6-7). Mexican Spanish, however, does not allow for VOS sentences with an empty preverbal position, in contrast with Peninsular and other varieties of this language. In all these cases the direct object can be alternatively dropped, in which case it is cross-referenced by the corresponding object clitic, yielding a VS sentence.[6]

(6) PENINSULAR SPANISH/ MEXICAN SPANISH
Los discos los compró una [$_{FOC}$ muchacha].[7] **O V S**
the records ACC-CL *bought a girl*
A GIRL bought the records.'

(7) a. PENINSULAR SPANISH (Zubizarreta 1998: 126)
Está buscando una secretaria [$_{FOC}$ el jefe de la fábrica]. **V O S**
is looking-for a secretary the factory's foreman
'The factory's FOREMAN is looking for a secretary.'

[6] Mexican Spanish allows for VOS sentences if the preverbal position is occupied by another constituent, as in (i).

(i) Ayer compró el periódico [$_{FOC}$ Juan]. **Adv V O S**
yesterday bought the newspaper Juan
Yesterday JUAN bought the newspaper.'

My sense is that in these cases the direct object corresponds to the *tail* (see fn. 1), i.e., it is material that is part of the common ground and that must appear in the postverbal field (see Vallduví 1992). Analyzing these cases requires a detailed account of the behavior of *tails* in Spanish which cannot be undertaken here, so I leave the analysis of XP-VOS sentences for future investigation.

[7] OVS sentences are also compatible with an interpretation where both the subject and the verb are in focus (see Fant 1984, Zubizarreta 1998, Gutiérrez-Bravo 2000a).

b. MEXICAN SPANISH
??Compró el periódico Juan. **V O S**
bought the newspaper Juan

In both Mexican Spanish and in the varieties of Spanish analyzed in Zubizarreta (1998) (Peninsular and Rioplatense Spanish), inverted subjects can correspond to either presentational or contrastive foci.[8] This is shown in (8-9), which correspond to my own data. The inverted subject in (8b) corresponds to the *wh*-operator in the question in (8a), and it is also compatible with the "correction" context in (9).

(8) INVERTED PRESENTATIONAL SUBJECT FOCUS
a. Quién compró los discos?
'Who bought the records?'

b. Los discos los compró una MUCHACHA.
the records ACC-CL *bought a girl* **O V S**
'A GIRL bought the records.'

(9) INVERTED CONTRASTIVE SUBJECT FOCUS
a. Me dicen que unos estudiantes compraron los discos.
to-me they-say that some students bought the records.
'They tell me that some students bought the records.'

b. No, los discos los compró una **MUCHACHA.**
no the records ACC-CL *bought a girl* **O V S**
'No, a GIRL bought the records.'

[8] Interestingly, Zubizarreta claims that the contrastive reading is available even when the focus does not bear the kind of pitch accent characteristic of contrastive foci. My impression is that this is also the case in Mexican Spanish, but experimental research is needed to support the validity of this claim.

Zubizarreta (1998) further claims that in the varieties of Spanish she considers, presentational foci can only appear in the sentence final position. My own research indicates that this is also the case in Mexican Spanish. The distribution of contrastive focus in Spanish is considerably more complex, though. In Mexican Spanish, contrastive foci typically appear in sentence final position, just like presentational foci. However, when the subject in focus is highly definite and individuated (typically a proper name) it can also appear in its canonical preverbal position. This is shown in example (10), originally from Zubizarreta (1998).[9]

(10) **MARÍA** me regaló la botella de vino.
María to-me gave the bottle of wine
'**MARÍA** gave me the bottle of wine.'

In other varieties of Spanish, the situation is even more complex. In the varieties of Spanish in Zubizarreta (1998) contrastive foci can also appear *in situ*[10] (see also Fant 1984), even when they do not correspond to the subject. This is shown in (11). Furthermore, as shown in (12) they can also be fronted to the left periphery (Hernanz

[9] Some speakers of Mexican Spanish (myself not included) further accept example (10) as an instance of presentational focus, i.e., as a reply to the *wh*-question "*Who gave you the bottle of wine?*". These speakers, however, still reject subject preverbal presentational foci when the subject is not a proper name. It seems to me that this is the result of pragmatic accommodation (see Lambrecht 1994). If the hearer assumes that the speaker is already presupposing the answer to the relevant question, he may use a contrastive focus as in (10) to disconfirm the speaker's presupposition. More research is needed to understand all the variables in play these cases. For the time being, however, I will not consider proper names in the discussion of presentational foci to follow.
[10] By contrastive focus in-situ I mean the situation where a constituent can be contrastively focussed in its canonical position even when this position does not correspond to the sentence final position.

& Brucart 1987, Casielles-Suárez 1995, Zubizarreta 1998; see Rizzi 1997 and Kiss 1998 for Italian).

(11) CONTRASTIVE FOCUS IN-SITU: Zubizarreta (1998).
La camarera del hotel puso la **VALIJA** sobre la cama (y no el maletín).
the hotel's attendant put the suitcase on the bed and not the briefcase
'The hotel's chambermaid put the SUITCASE on the bed, not the briefcase.'

(12) PREPOSED CONTRASTIVE FOCUS: Zubizarreta (1998).
Las **ESPINACAS** detesta Pedro (y no las papas).
the spinach hates Pedro and not the potatoes
'SPINACH Pedro hates, (not potatoes).

My data on fronted and in-situ contrastive focus in Mexican Spanish is too scant for me to draw any conclusions at this point. Speakers of Mexican Spanish, however, readily reject cases of preposed foci like (12), and to my ear, they are downright ungrammatical. In-situ foci do not appear to be fully ungrammatical in some cases, but they sound extremely unnatural and at this point I do not have any attested examples of this kind of construction. Given these complications, in what follows I only provide an analysis of presentational focus, whose behavior is more systematic. Unless otherwise noted, from this point onwards I use the term "focus" to refer exclusively to presentational focus.

4.2.2 Subject Presentational Foci

I first address the most simple cases of subject focus, which correspond to those instances where the object of a transitive sentence is dropped. I will address the cases

where the object is not dropped (examples (6-7)) once the basics of the analysis of topicalization are introduced in §4.3. Consider the felicity contrast in (13), which illustrates the requirement that foci be sentence final in Spanish.

(13) Quién compró los discos?
'Who bought the records?'

a. #[Una muchacha]$_{FOC}$ los compró. **S V**
a girl ACC-CL *bought*

b. Los compró [una muchacha]$_{FOC}$ **V S**
ACC-CL *bought a girl*
'A GIRL bought them.'

The felicitous answer where the subject is in focus, (13b), does not follow the word order observed in transitive sentences in the unmarked case. In §3 I argued that fronting of an *agent* subject was the result of the need to satisfy the EPP, which in Spanish is prioritized over the marked structure that results from having an *agent* in the Pole of the sentence. But clearly the EPP is not being satisfied in (13b), since the sentence lacks a Pole altogether.[11]

[11] Here I follow Suñer (1988) in analyzing accusative and dative clitics in Spanish like *los* in (13) as instances of morphological agreement and not as XPs or independent heads. This rules out the possibility that the EPP is satisfied by the clitic. In this kind of analysis, though, the clitic is coreferential with a *pro* that satisfies the verb's selection and theta requirements (Jaeggli 1982) and this raises the question of whether *pro* could satisfy the EPP in this kind of subject inversion sentence. Up to this point I have not found any evidence confirming or disconfirming such a possibility, but it should be noted that subject inversion in general is not dependent on some other argument of the verb (null or overt) satisfying the EPP. This is most clearly observed in VOS sentences from Peninsular Spanish, where both the arguments of the transitive verb are realized overtly in the post-verbal field.

Now, subject inversion in Spanish is often analyzed as an operation that results in a compromise between focus and intonation requirements. Under the assumption that foci need to be signaled with the nuclear accent (the most prominent accent in the sentence: Jackendoff 1972; Selkirk 1984, 1995, among many others), and under the assumption that this accent is necessarily clause final in Spanish (e.g. Ladd 1996), a subject in focus must appear in the clause final position to comply with the intonational prominence requirement on foci (Contreras 1976, Zubizarreta 1998, Gutiérrez-Bravo 2000a, Büring & Gutiérrez-Bravo 2001). In what follows, I adopt this general line of analysis.[12]

Following Samek-Lodovic (1996), Costa (1998) and Grimshaw & Samek-Lodovici (1998), I assume that foci are specified as such in the input by the feature [focus]. I further assume that the requirement that foci be signaled with the nuclear accent corresponds to the FOCUSPROMINENCE constraint of Büring (2001) and Büring & Gutiérrez-Bravo (2001).

(14) FOCUSPROMINENCE (FP)
Focus is most prominent.

I take FOCUSPROMINENCE to be a constraint that regulates the correspondence between a [focus] feature in the input and a constituent signaled with the nuclear

[12] In contrast, there are a number of OT analyses that derive the position of inverted subjects through a structural constraint on foci (usually an Alignment constraint) as in Samek-Lodovici (1996) and Grimshaw & Samek-Lodovici (1998), or through a combination of structural and intonational requirements (Costa 1996, 1998). I refer the reader to Gutiérrez-Bravo (2000a) for a critique of these analyses.

accent in the output (i.e., it requires a focus to be intonationally the most prominent constituent in a clause).[13] I further assume the analyses in Büring (2001) and Büring & Gutiérrez-Bravo (2001), which suggest that every focal element in the clause is subject to it. When the subject is the only element specified as a focus, it is the only constituent subject to this constraint. When both the verb and the subject (or some other argument or adjunct) are foci, both are subject to it, and in cases of sentence focus every element in the clause is required to satisfy it.

The FOCUSPROMINENCE constraint crucially interacts with the constraints that govern the formation of phonological phrases, as argued for in Truckenbrodt (1999), Büring (2001), Büring & Gutiérrez-Bravo (2001) and Szendröi (2001). For full details related to phonological phrasing and intonational prominence in Spanish, I refer the reader to the analysis in Büring & Gutiérrez-Bravo (2001). In what follows, it will be enough to note that in the case of Spanish, where the nuclear accent is sentence-final, FOCUSPROMINENCE is violated whenever there is a constituent in focus which does not occupy the sentence-final position.

With these considerations in mind, consider again the VS order in (13a), where the *agent* subject is in focus. These examples show that Mexican Spanish, like other dialects of Spanish, prioritizes the requirement that presentational foci be

[13] Technically, this is a simplified version of FOCUSPROMINENCE. In cases where there is more than one constituent in focus in languages like German, this constraint is responsible for ensuring that all of the focal constituents receive some degree of intonational prominence through a pitch accent (all else being equal) even if only one of them can be signaled with the nuclear accent. See Büring (2001) for details.

intonationally prominent (and thus appear in the sentence final position where the nuclear accent falls) over the requirement to have the Pole position filled. To derive this result, it is only necessary to rank the FOCUSPROMINENCE constraint above EPP. The resulting analysis is shown in tableau (15), where (15b) emerges as the winner despite its violation of EPP. In (15) and the tableaux that follow, the constituent on which the nuclear accent falls is indicated in small caps.[14]

(15) INPUT: <buy (x, y), x=a girl (Ag), x=[focus], y= *pro* [3rd.PL](Th)>

	FOCUS PROM	EPP	*Pole/ Agent
a. [$_{IP}$ [una muchacha]$_{Foc}$ LOS COMPRÓ [$_{VP}$]] **SV**	*!		*
☞ b. [$_{IP}$ los compró [$_{VP}$ [UNA MUCHACHA]$_{Foc}$]] **VS**		*	

This analysis is similar in its essentials to previous OT analyses of focus-driven subject inversion (Samek-Lodovici 1996; Costa 1996, 1998; Grimshaw and Samek-Lodovici 1998) which propose that a language displays subject inversion when the constraint on foci outranks the structural requirement on subjects (either the SUBJECT or the SUBJCASE constraint). In this way, my proposal is compatible with the conclusion that these analyses arrive at. However, my analysis is different in two important respects.

[14] What prevents a preverbal focussed subject (such as the subject in 15a) from satisfying FOCUSPROMINENCE by receiving the nuclear accent *in-situ* are higher-ranked prosodic constraints that ensure that the nuclear accent is sentence-final in Spanish. See Büring & Gutiérrez-Bravo (2001) for details.

First, in my OT analysis there is no direct link between word order and focus interpretation. As discussed originally in Gutiérrez-Bravo (2000a), the relevant effects are mediated by intonational considerations.[15] Secondly, my analysis does not resort to a subject condition, but rather to the interaction between the EPP and the markedness constraints in the Pole Hierarchy. This difference has no consequences in simple cases like (15), but its relevance begins to emerge once we consider more complex cases, such as sentence focus, which I analyze in the next subsection.

4.2.3 Sentence Focus

It is a well-known fact about Spanish and other subject-inversion languages that the word order perturbations observed when the subject is in focus are not possible in cases of sentence focus, that is, when every constituent in the clause is a focus (see Contreras 1976, Fant, 1984, to cite just a few references). This is illustrated by the contrast in felicity between SVO and OVS in (16). Recall that OVS is the typical realization in Mexican Spanish of clauses with the subject in focus when both the subject and the object are realized as lexical XPs (see §4.2.1).

(16) Qué pasó?
What happened?'

a. Una muchacha compró los discos. **S V O**
a girl bought the records
'A girl bought the records.'

[15] This difference is not immediately relevant for our purposes, so I refer the reader to Gutiérrez-Bravo (2000a) for discussion.

b. #Los discos los compró una muchacha. **O V S**
the records ACC-CL *bought a girl*

In Costa's (1998) analysis of sentence focus in Portuguese it is proposed that the unmarked SVO order emerges as the optimal output in these cases because the subject-inversion candidate (VOS in Portuguese) incurs a violation of the subject condition that is not necessary to satisfy the constraint on foci. Costa (1998) relies on the ALIGNFOCUS constraint of Grimshaw & Samek-Lodovici (1996) that requires foci to be rightmost, and which is vacuously satisfied in cases of sentence focus.[16] He observes that as a result of this, any order of the predicate and its arguments equally satisfies ALIGNFOCUS and so this constraint does not play any role in defining the optimal output. Since the effects of ALIGNFOCUS are neutralized in this case, other constraints determine the outcome. Concretely, in Costa's analysis the SUBJECTCASE constraint decides the outcome of the competition. This is shown in the tableau in (17), which summarizes the analysis in Costa (1998).

(17) Sentence Focus in Portuguese (Costa 1998)
INPUT: < V(x,y), Focus: V(x,y) >

	ALIGN FOCUS	SUBJ-CASE
☞ a. [$_{IP}$ S V [$_{VP}$ O]]		
b. [$_{IP}$ V [$_{VP}$ O [$_{VP}$ S]]]		*

[16] When the focus domain and the sentence coincide entirely, their right edges necessarily coincide. This result cannot be achieved with the original formulation of ALIGNFOCUS in Grimshaw & Samek-Lodovici (1996) and Samek-Lodovici (1996), so Costa (1998) suggests a redefinition of this constraint. I refer the reader to Costa's work for details.

Costa points out that in sentence focus contexts we see an instance of the *emergence of the unmarked word order* (see also Costa 2001). In other words, even though Portuguese displays numerous word order permutations as the result of being a discourse-configurational language, the unmarked word order, regulated in its entirety by syntactic constraints, emerges as the optimal output when the constraints related to the discourse are neutralized.[17]

Costa's analysis embodies the important insight that in the case of sentence focus, focus-specific constraints play no crucial role in determining word order. Instead, the purely syntactic constraints are crucial. My analysis preserves this insight. However, in place of the syntactic-pragmatic constraint ALIGNFOCUS, my analysis appeals to FOCUSPROMINENCE, a constraint that regulates the correspondence between focus and pitch accent. Furthermore, the way in which my analysis explains why SVO is the felicitous order in sentence focus contexts is crucially different. This is most clearly observed in the contrast between SVO and OVS in (16). The competition between these two structures is shown in tableau (18), where I take the fronted object in OVS clauses to correspond to the Pole, [Spec, I] in this particular case (see §4.3.2 and §4.3.3 for further discussion).

[17] See Gutiérrez Bravo (2000a) for an OT analysis of Peninsular Spanish along these lines.

(18) INPUT: <buy (x, y), buy=[focus], x=a girl (Ag), x=[focus], y=the records (Th), y=[focus]>

	FOC PRO	*Pole/ Theme	EPP	*Pole/ Agent
☞ a. $[_{IP}$ [una muchacha]$_{Foc}$ [compró]$_{Foc}$ $[_{VP}$ [LOS DISCOS]$_{Foc}$]]	**			*
b. $[_{IP}$[los discos]$_{Foc}$ [los compró]$_{Foc}$ $[_{VP}$ [UNA MUCHACHA]$_{Foc}$]]	**	*!		

Recall that the definition of FOCUSPROMINENCE is such that every focal element (whether it is an argument or a predicate) must be signaled with the nuclear accent. In cases of sentence focus the verb and both its arguments are all focal elements. Since the sentential accent can only signal one of these elements, cases of sentence focus will always bring with them violations of FOCUSPROMINENCE, as suggested in Büring's (2001) analysis of German. In both (18a) and (18b), only the sentence-final constituent can satisfy FOCUSPROMINENCE, and so each candidate incurs two violations of this constraint, one corresponding to the verb, the other one to the argument in [Spec, I]. As in Costa's analysis, the word order effects driven by the condition on foci are neutralized in this case, since word order perturbations can no longer prevent violations of FOCUSPROMINENCE. As a result, the SVO candidate emerges as the winner because the OVS candidate incurs in a violation of *Pole/Theme that does not improve the structure in any way.

The analysis above highlights the relevance of structural markedness in my approach. As we have seen, in previous OT analyses based on Case (Costa 1998, 2001) or a subject condition (Samek-Lodovici 1996, Grimshaw and Samek-Lodovici 1998), the OVS candidate (18b) would be ruled out because it violates the

Case/Subject condition, since the subject is not in [Spec, I]. Yet, as argued in the preceding chapter, it is problematic to derive the unmarked word order of the winning candidate (18a) through such a condition in Spanish, so in my analysis it plays no role in deciding the outcome of the competition.

Two further observations become relevant here. The first is that the EPP does not play a role in deciding the outcome either, since it is satisfied in both candidates, by the subject in (18a) and by the fronted object in (18b). And second, Economy of Structure and Economy of Movement do not play a role in deciding the outcome either. In both cases [Spec, I] is projected and both cases show the same number of movement operations; one of the arguments of the verb moves to [Spec, I] and the other one remains in its VP-internal position. Rather, what decides the outcome in (18) is structural markedness. The OVS candidate is more marked than the SVO candidate because it has a *theme* as its Pole. This results in the fatal violation of *Pole/Theme that crucially tilts the balance in favor of the SVO candidate which shows a lower degree of structural markedness. Unlike Costa (1998) and similar analyses, in my proposal the SVO candidate does not surface as the winner because it satisfies a well-formedness condition (say SUBJCASE) that the subject-inversion candidate fails to satisfy. Instead, it is its relative degree of structural markedness that makes it optimal when compared with the OVS candidate.

In this way, my analysis is reminiscent of the analysis of word order in Spanish in Contreras (1976), who suggests that the contrast between (19a) and (19b) is also an issue of the relative markedness of the semantic role of the constituent that occupies

the preverbal position. In Contreras' analysis, however, the relevant markedness distinction has to do with the Theme/Rheme dichotomy dating back to the Prague Circle tradition. In a nutshell, Contreras proposes a hierarchy where *agents* are more marked Rhemes (i.e. foci) than (semantic) *themes* or *patients*. Since Rhemes have to be aligned to the right edge of the clause in accordance with this hierarchy, the SVO word order corresponds to the one that is least marked with respect to the Rheme hierarchy, and so it is signaled as the unmarked order.

There are two ways in which my analysis is different from the one in Contreras (1976), though. First, in my proposal the relevant distinction is a distinction made purely in terms of structural markedness. This kind of markedness is defined in part with respect to the Pole, but is ultimately better understood as a property of the clause as a whole. For instance, in the discussion of unaccusative verbs I argued that a clause with a *theme* as the Pole is more marked than a clause without a Pole. But there is nothing inherent about *themes* functioning as Poles that entails that this should be so. It is the relative ranking of the EPP (a purely structural constraint), with respect to *Pole/Theme that defines the relative markedness of these two possible clauses and consequently defines the one that corresponds to the unmarked word order. Clearly enough, in a language that had the opposite ranking (i.e. EPP >> *Pole/Theme) a clause with a *theme* as the Pole would be less marked than a clause without a Pole, and so it would correspond to the unmarked word order in this case.

The second way in which my proposal differs from Contreras' is that it rejects the hypothesis that discourse considerations such as Theme/Rheme play a role in defining

unmarked word order (recall that in the analysis of unmarked word order that I developed in the preceding chapter constraints related to the discourse did not play any role). In departing from this hypothesis, I depart from its fundamental assumption, namely, that there is an inherent relation between certain semantic roles (i.e. *agents*) or grammatical relations (i.e. *subjects*) and certain pragmatic relations such as topic (or Theme, in Contreras 1976). This is an issue that has been much discussed in the literature on Spanish (and many other languages) with respect to the relation between subjects and topics, and so it is taken up in detail in the analysis of topicalization that I will present in the following section.

Summarizing the discussion so far, the analysis of focus-driven subject inversion in Mexican Spanish developed in this section highlights two important properties of my approach. First, there is no incompatibility between the claim that clauses with focus-driven subject inversion lack a Pole (and therefore fail to satisfy the EPP) and the claim that the EPP is an active requirement in Mexican Spanish. In the OT proposal I have developed, this is the result of a ranking where FOCUSPROMINENCE outranks EPP. Secondly, the facts observed in sentence focus support my proposal that structural markedness plays a fundamental role in defining word order in Spanish. In my analysis the unmarked SVO order emerges in cases of sentence focus not because it satisfies a well-formedness condition that the subject inversion candidate OVS fails to meet. Rather, both orders satisfy the EPP, but SVO emerges as the output because it has a lower degree of structural markedness with respect to the Pole than the OVS candidate.

4.3 Topicalization

As in many other languages, topicalization results in perturbations of the basic word order of Spanish. We will see that these perturbations conflict with the scale of structural markedness (the Pole hierarchy) proposed in §3. Hence an adequate analysis of Spanish word order must include an account of topicalization. The account of the basic cases is fairly straightforward and provides further support for a definition of the EPP which appeals to the notion of the Pole. More complex are cases in which two constituents occur in the preverbal field. Here, the semantic role-sensitivity of the Pole, as embodied in the Pole Hierarchy, plays a crucial role in fixing their relative order.

Before addressing these issues, I will lay out my basic assumptions about topicalization. Topicalization remains one of the most obscure aspects of the syntax-pragmatics interface, and there is no agreement in the literature as to how to define sentence topics and how to characterize them formally.[18] Since it is not the purpose of this dissertation to address the semantic and pragmatic properties of sentence topics, my characterization of topicalization in Spanish is fairly basic and relies mostly on syntactic criteria to identify topical XPs.[19]

[18] For different analyses of sentence topics, see Kuno (1972), Chafe (1976), E. Prince (1981, 1984), Reinhart (1982), Vallduví (1992), Lambrecht (1994), Büring (1999) and Choi (1999),

[19] I am greatly indebted to Donka Farkas for helpful discussion of the relevant issues in the paragraphs that follow.

By topicalization I mean the operation whereby a referential expression signaled as the sentence topic is displaced to a left-peripheral position. This is shown for a direct object in (19a) and for a temporal adverbial in (19b).[20]

(19) a. El periódico lo compró Juan. O V S
the newspaper ACC-CL *bought Juan*
'The newspaper, John bought it.'

b. Ayer compró Juan el periódico. Adv V S O
yesterday bought Juan the newspaper
'Yesterday Juan bought the newspaper.'

I assume that topicalization can fulfill either of two functions. In the first one, topicalization establishes a pragmatic relation of aboutness which holds between a referent and a proposition with respect to a particular context, such that a sentence topic is (broadly) the syntactic constituent which the proposition is about (Kuno 1972, Gundel 1974, Dik 1978, Reinhart 1982; see also Lambrecht 1994). The second function that sentence topics can have is to "limit the applicability of the main predication to a certain restricted domain... the topic sets a spatial, temporal or individual framework within which the main predication holds" (Chafe 1976:50).

In (19a) the left-peripheral XP 'the newspaper' is in an aboutness relation with the rest of the sentence, whereas in (19b) 'yesterday' anchors the rest of the sentence in a

[20] In what follows I do not consider hanging topics, which are topical expressions that are introduced by a locution such as '*with respect to...*', '*as for...*', etc., as in the English example in (i), and which behave differently from sentence topics in Spanish and other languages (see Zubizarreta 1999 for discussion and diagnostics)

(i) With respect to John, he has agreed to take responsibility over the project.

specific time frame. Despite their differences in function, these two kinds of topic are equally required to appear in a left-peripheral position. Furthermore, fronted topics of both kinds create islands for extraction (see Rochemont 1989; for Spanish, see Goodall 2001). This is shown in the examples below. The topic in (20a) coresponds to the direct object of the lower verb. In (20b) and (20c) it corresponds to a temporal and a locative expression, respectively. I adopt this syntactic test as the primary diagnostic for identifying sentence topics.[21]

(20) a. *A quién crees [que el premio se lo dieron]?
to whom you-think that the prize DAT-CL ACC-CL *they-gave*
('Who do you think that the prize they gave to?') (Goodall 2001)

b. ??Qué dices [que ayer compró Juan]?
what you-say that yesterday bought Juan
('What are you saying that yesterday Juan bought?')

c. *Cuántas personas decidieron [que en Mérida van
how-many persons you-PL-*decided that in Mérida you*-PL-*go*
a entrevistar]?
to interview
('How many people did you decide that in Mérida you are going to interview?)'

It is also important to note that even though the topic in (19a) is doubled by a clitic whereas the one in (19b) is not, this does not necessarily indicate that the

[21] This diagnostic is not as reliable when the topic corresponds to the subject, as in complement clauses with preverbal unaccusative subjects. In such cases extraction is still degraded but clearly better than in the examples in (20). At present I have no explanation for this fact.

fronted XPs in (19) are formally different *qua* topics.[22] Rather, this difference seems to be the result of the fact that Spanish has a fairly impoverished clitic inventory, as far as Romance languages go (in contrast, in other Romance languages locative, temporal and genitive/partitive XPs can be doubled by a clitic; see Vallduví (1992) for Catalan and Zubizarreta (1999) for Italian and French).

Following Büring (1999), I also assume that sentence topics are crucially distinct from *discourse* topics. Discourse topics can be thought of as referential expressions that are both discourse-old and *active* in the sense of Chafe (1976, 1987) and Lambrecht (1994), where Chafe (1987:22ff) defines an active referent as one "that is currently lit up, a concept in a person's focus of consciousness at a particular

[22] This is in contrast with English which does have two formally different ways of expressing sentence topics, as is well-known: topicalization and left-dislocation. Each is illustrated in the examples in (i), from E. Prince (1984).

(i) a. Math courses I was never good at.
b. This one book, I read it when I was a kid.

As is also well known, these two kinds of constructions have a number of different syntactic, intonational and pragmatic properties (see E. Prince 1981, 1984; Lasnik & Saito 1992, *inter alia*). For instance, left-dislocation involves a resumptive pronoun coreferential with the topic, but topicalization does not. Also, in topicalization the sentence topic necessarily shows some degree of intonational prominence (although it does not bear the most prominent accent in the clause. i.e., the nuclear accent), but this is a condition left-dislocated topics are not subject to. English further has preposed focus constructions, which are syntactically identical to topicalization. but which are different from topicalization differ in their intonational and pragmatic properties (E. Prince 1981). I refer the reader to Prince's work for details on these issues.

In this respect, there is no Spanish construction like (i.a) lacking a resumptive clitic that would be equivalent to English topicalization: clitic left-dislocation is the only possibility in such cases. The absence of the clitic in (19a), and in all other constructions involving fronted topical definite direct objects and indirect objects, would result in ungrammaticality, as is well known (see for example Suñer 1988, Zubizarreta 1999).

The reader should also be aware that by using the term *topicalization* I am not claiming that this phenomenon in Spanish is equivalent in its pragmatic properties to English topicalization (vs. English left-dislocation). At this point, I do not know if Spanish topicalization can fulfill the different pragmatic functions of both English topicalization and left-dislocation, or rather if it corresponds to just one of them. See Casielles-Suárez (1995) for discussion of this issue in Catalan

moment". As noted in Lambrecht (1994), active referential expressions are typically realized as unstressed pronouns or as zero or null forms, and so I take this formal encoding as the *prima facie* diagnostic for discourse topics.[23]

A further difference between sentence topics and discourse topics is relevant here. It has often been pointed out that discourse-topicality is a property that can extend across a (potentially very large) number of sentences. In contrast, sentence topicality is a relational property that topic constituents have by virtue of being in a particular relation (aboutness, anchoring) with other elements of the sentence, a relation that is usually signaled by word order (see especially Reinhart 1982, Vallduví 1992 and Lambrecht 1994).[24] In this respect, I assume that a fundamental difference between sentence and discourse topics is that a sentence topic cannot be realized by an unstressed or null form, and instead it must be realized as a full lexical XP (or as a stressed pronoun) in a left-peripheral position, in which I essentially follow the analysis of sentence topics in Vallduví (1992).[25]

After these considerations, the characterization of sentence topics that we arrive at is that a sentence topic is a full lexical XP that is part of the common ground and which is displaced to a left-peripheral position from the position it would occupy in

[23] In my view, discourse topics are the kind of topic that is targeted by the DROPTOPIC constraint of Grimshaw & Samek-Lodovici (1998), which requires expressions signaled as topics in the input to be left unrealized in the output. Since my analysis of topicalization concentrates on sentence topics and not on discourse topics, I do not discuss the DROPTOPIC constraint in what follows.

[24] There are languages like English (Jackendoff 1972, E. Prince 1981, 1984) and German (Büring 1999) where sentence topics can also be signaled by purely intonational means, without displacement to a left-peripheral position. It seems to me that this option is not available in Mexican Spanish, but clearly extensive research is needed to clarify this issue.

[25] Sentence topics are termed *Links* in Vallduví (1992).

the unmarked case. The diagnostic that I resort to for identifying sentence topics relies on the fact that topics create islands for extraction. With this characterization of sentence topics in mind, we can turn to the interaction of topicalization with the EPP and with the markedness constraints in the Pole hierarchy.

4.3.1 Topicalization and the Pole

Consider the examples first introduced in §4.1 as (1), and reproduced here as (21). Recall that I take all these cases to involve topicalization of the XP that appears in the preverbal position, with one or more focal elements following the topic.

(21) a. Ayer compró Juan el periódico. Adv V S O
yesterday bought Juan the newspaper
'Yesterday Juan bought the newspaper.'

b. El periódico lo compró Juan. O V S
the newspaper ACC-CL *bought Juan*
'The newspaper, John bought it .'

c. Los chocolates le gustan a Juan. S V IO
the chocolates DAT-CL *like.*3p *to Juan*
' Chocolate, Juan likes.'

d. Tu hermano llegó. S V
your brother arrived
'Your brother arrived.'

Fant (1984) made the striking observation that in Spanish (all else being equal), all that is required for a *theme* argument to qualify as a topic and be fronted to the preverbal position is to have an instantiation in the previous discourse. Furthermore,

under certain discourse conditions (whose precise characterization awaits future research) topicalization is obligatory in Spanish. Thus there is a robust contrast in felicity between (22a), where the unaccusative subject is fronted, and (22b), which corresponds to the unmarked word order.[26]

(22) A: Estábamos esperando a que [llegara *tu hermano*] para ir a la fiesta pero no vamos a poder ir.
'We were waiting for [*your brother* to arrive] so that we could go to the party, but we're not going to be able to go.'

B: Por qué?
'Why?'

A:

a) Porque [tu hermano llegó], pero no trajo el coche. **S V**
because your brother arrived but not brought the car
'Because your brother arrived, but he didn't bring the car with him.

b) #Porque [llegó tu hermano], pero no trajo el coche. **V S**
because arrived your brother but not brought the car

Based on this observation, I assume in what follows that being discourse-old is a sufficient condition for an argument or adjunct to appear as a sentence topic.[27] My proposed analysis for the examples in (21) is that in all cases the fronted topic corresponds to the Pole of the clause ([Spec, I] in this case). This raises two separate

[26] Example (22) is my own. See Fant (1984) for similar contrasts in transitive constructions and psych predicates.

[27] Having an instantiation in the previous discourse is a sufficient but not a necessary condition for topicalization. As discussed in the previous section, what characterizes the referent of a topic is that it is part of the common ground, and temporal expressions usually can be part of the common ground and function as topics even when they are not discourse-old. This is presumably because the speaker and the hearer share the assumption that an event necessarily involves a time at which it occurs.

issues with respect to my analysis of unmarked word order in §3. The first one is that in my analysis *agents* constitute the least marked instance of a Pole, but in (21a-b) it is a different argument or adjunct that occupies the Pole position. The second issue is that I suggested that *themes* are prevented from occupying the Pole in the unmarked case because of the ranking *Pole/Theme >> EPP, but clearly this state of affairs does not hold of (21b-d). In what follows I argue that both of these issues can be understood as the result of the interaction between the requirement that sentence topics appear in a left peripheral position, the EPP, and Economy of Structure considerations.

In deriving the left-peripheral position of the topics in (21), I closely follow Costa's (1998, 2001) proposal that topic fronting is required by the constraint TOPICFIRST, defined in (23).[28]

(23) TOPICFIRST (Costa 2001:176)
Topics are sentence initial; nontopics cannot be topicalized.
Failed by topics that are not sentence initial, and by topicalized nontopics.

[28] A different approach to topicalization in OT can be found in Legendre et.al. (1995) and Legendre et. al. (1998). In these analyses topics are taken to be operators whose scope is specified in the input. Fronting of a topic is then derived by a faithfulness constraint that requires that the scope of the topic in the input be mapped into the surface representation. As noted in Costa (1998), however, numerous works have argued that topics do not behave like true operators (Cinque 1990, Lasnik & Stowell 1991, Müller & Sternefeld 1993), and so deriving their behavior through scope considerations does not seem entirely adequate. Ultimately though, the contrast between long and embedded topicalization indicates that TOPICFIRST is not the only constraint at play in topic fronting. This is an issue that certainly deserves more attention, but for the purpose of analyzing the relation between topicalization, structural markedness, and the EPP, we can rely on TOPICFIRST for the time being.

I propose two modifications of Costa's constraint, however. First, it seems to me that the clause of this constraint that states that non-topics cannot be topicalized can be independently captured by Economy of Structure and Economy of Movement considerations. In terms of my analysis, for example, unnecessary fronting of a non-topic will result in a higher degree of structural markedness than the one of a candidate that does not display gratuitous topicalization (this is an issue that will become clearer in the discussion that follows). Accordingly, I will leave this second clause of the constraint out. Second, I propose defining TOPICFIRST as a gradient constraint. The purpose of this is to allow a topic to move as far to the left as possible, even when for some reason it cannot end up being the clause initial constituent. My proposed modification of TOPICFIRST is as follows.

(24) TOPICFIRST
A topic is the initial constituent of a [+verbal] Extended Projection.
If *XP* is a topic, then *XP* c-commands every head *Y* and every maximal projection *ZP* in the Extended Projection, where *Y* is a head not contained by *XP*, and *ZP* is a maximal projection that neither contains nor is contained by *XP*.
-Violated once by every head Y or every ZP that c-commands a topic.

The crucial aspect of my analysis of topicalization in Spanish is that in the examples in (21), the fronted topics automatically satisfy the EPP constraint by virtue of moving into the Pole position to satisfy TOPICFIRST. This is supported by the evidence from ellipsis discussed in §2, which indicates that topics and subjects

occupy the same position in Spanish (Ordóñez & Treviño 1999). The relevant paradigm is repeated in (25).

(25) a. Luis reprobó a Ernesto, pero [Juan no___].
Luis failed ACC *Ernesto but Juan not*
'Luis failed Ernesto, but Juan didn't.'

b. Invitó a Luis, pero [a Juan no___].
he-invited ACC *Luis but* ACC *Juan not*
'He$_i$ invited Luis, but Juan, he$_i$ didn't (invite).'

c. En ese café cobran carísimo, pero [en el otro no___].
in that coffee.shop they.charge very.expensive but in the other not
'In that coffee shop they charge a lot, but in the other one they don't.'

I first exemplify my analysis of topicalization with the case that corresponds to the topicalized subject of an unaccusative predicate, since it corresponds to the simplest instance of topicalization. We have seen that in this case a subject *theme* appears in the preverbal position, contrary to what is observed in the unmarked case. Since topicalization overrides the unmarked word order, TOPICFIRST must outrank *Pole/Theme in Spanish. The analysis of example (21d) is presented in tableau (26):

(26) (=21d) INPUT: <arrive (x), x=your brother (Th), x=[topic] >

	TOPIC FIRST	*Pole/ Theme	EPP
☞ a. [$_{IP}$ tu hermano llegó [$_{VP}$]] **SV**		*	
b. [$_{IP}$ llegó [$_{VP}$ tu hermano]] **VS**	*!		*

Candidate (26b), which corresponds to the unmarked word order, loses because of its violation of TOPICFIRST, since the verb c-commands the topic. Candidate (26a) wins despite its violation of *Pole/Theme, which would be fatal if the subject were not a topic. Notice that the winning candidate further satisfies the EPP by virtue of placing the subject in [Spec, I] in order to satisfy TOPICFIRST. This is irrelevant for the evaluation of this particular example (since TOPICFIRST is the constraint that decides the outcome of the competition) but the fact that fronted topics get to satisfy EPP as a side effect of complying with TOPICFIRST will be crucial when we consider more complex cases later in this chapter and in the following one.

In Spanish constituents with any semantic role can appear as fronted topics in the preverbal position. Example (21a) and (21b) show a temporal expression and *theme* direct object functioning as a topic, respectively. Examples with locative XPs, and manner and reason adverbs are presented below.

(27) a. En este bar escribió Max su primera novela.
in this bar wrote Max his first novel
'In this bar, Max wrote his first novel.' (Zubizarreta 1998:101)[29]

b. De esta manera concluyeron las negociaciones entre los dos partidos.
in this way finished the negotiations between the two parties
'In this way, the negotiations between the two parties came to an end.'

c. Por eso no ha terminado Luis la carrera.
for that not hasfinished Luis the college.degree
'Because of that, Luis hasn't finished his college degree.'

[29] Gloss and free translation are my own.

Under the assumption that all of these topics occupy the same position, the data in (27) indicates that TOPICFIRST outranks the whole of the Pole Hierarchy. This is because, all else being equal, an XP is not excluded from the Pole position when it corresponds to a topic, irrespective of its semantic role. The ranking of the relevant constraints so far is thus the one in (28).

(28) TOPICFIRST >> *Pole/Reason >> ... >> *Pole/Theme >> EPP >>*Pole/Experiencer >> *Pole/Agent.

4.3.2 Vacuous Structure

The analysis in (26) assumes that if a topic gets fronted, it lands in the Pole specifier, and we have seen evidence from ellipsis that this is correct. However, it is clear that GEN can generate other structures where a topic is fronted to satisfy TOPICFIRST without making it the Pole of the clause. The relevant candidates are presented in (29).

(29) a. $[_{IP}$ tu hermano$_i$ $[_{IP}$ ___ llegó$_j$ $[_{VP}$ t_i t_j]]].
your brother arrived

b. $[_{XP}$ tu hermano$_i$ $[_{X}$ Ø] $[_{IP}$ ___ llegó$_j$ $[_{VP}$ t_i t_j]]].
your brother arrived

c. $[_{XP}$ tu hermano$_i$ $[_{X}$ llegó$_j$] $[_{IP}$ ___ t_j $[_{VP}$ t_i t_j]]].
your brother arrived

A candidate like (29a) adjoins the topic to IP, so TOPICFIRST is satisfied, but it leaves the specifier of IP empty, so there is no violation of *Pole/Theme.[30] A candidate like (29b) also satisfies TOPICFIRST and avoids a violation of *Pole/Theme by projecting an extra XP with a null head above IP to host the topic in its specifier.[31] Candidate (29c) is just like (29b), the only difference is that in this case the verb in I^0 further moves to the head position of XP. Since these candidates only violate EPP, which is ranked below *Pole/Theme, one of them would emerge as the winner under our current set of constraints.

As surface strings the candidates in (29) are no different from the winning candidate (26a), but it is still necessary to distinguish them. As I will show later in this chapter and in the following one, candidates where topics are adjoined to IP, as in (29a), or where an extra XP is projected above IP, as in (29b) (but not as in 29c) can in fact emerge as winners in more complex clauses. However, this is not the typical situation, as the evidence from ellipsis indicates. This makes it necessary to rule out the candidates in (29), where the topic does not occupy the same position that a preverbal transitive subject would occupy in the unmarked case. For this purpose I propose the constraints against vacuous structure below (see also Grimshaw 1993; 1997 and Legendre et.al. 1995), which I suggest belong to the family of constraints that regulate Economy of Structure.

[30] Contreras (1991) proposes that topicalization involves precisely this structure in Spanish.
[31] Recall from the definition in §2.2.2 that the specifier of such a phrase (whether a recursion of IP or a fully vacuous XP) does not correspond to the Pole.

(30) NO VACUOUS STRUCTURE
Structure is only projected to satisfy the lexical and/or feature requirements of a head.

b. *VACUOUS-XP
No vacuous projection; violated by projections of a head with no inherent lexical or featural content.

a. *ADJUNCTION
No adjunction; violated by XP or head adjunction structures.

The definition of *ADJUNCTION is straightforward. The reason for proposing the *VACUOUS-XP constraint requires some discussion. Recall that in §2.1.2 I introduced the concept of *vacuous XP*. There I suggested that this is an XP that has no inherent features of its own, whether because the features of its head are exactly those of the phrase that is immediately subjacent to XP (i.e., IP recursion) or because its head lacks features altogether (other than the {F} value that it has simply for being part of the Extended Projection). *VACUOUS-XP is precisely the constraint that penalizes such a structure, and as such it is closely related to the MINIMAL PROJECTION constraint of Grimshaw (1993), which requires that "a functional projection make a contribution to the functional representation of the extended projection that it is part of, thus ruling out empty projections" (Grimshaw 1997: 374, fn.1).[32]

[32] Grimshaw (1997) abandons the MINIMAL PROJECTION constraint, claiming that its effects with respect to Economy of Structure can be captured independently by the STAY and Ob-HD constraints. Although this is true in a great many cases, independent violations of the STAY and Ob-HD constraints are not enough to rule out a candidate that does not abide by Economy of Structure when such a candidate satisfies a markedness constraint that outranks both STAY and Ob-HD. This is arguably the case in Spanish, where the relevant markedness constraint can be taken to be *Pole/Theme. We know that *Pole/Theme outranks STAY because *Pole/Theme outranks EPP and EPP in turn outranks STAY (§3.3.1). Evidence from *wh*-interrogatives, to be presented in the following chapter (§5.4., fn 36; see also Appendix A) further indicates that Ob-HD is fairly low-ranked in this language, possibly even outranked by STAY. As a result, a candidate that projects a vacuous XP to prevent a *theme* from landing in the Pole position indeed violates either Ob-HD (example 29b) or incurs an extra violation of STAY because of verb movement from I^0 to X^0 (example 29c), yet it will still win, because in either

My conception of *VACUOUS-XP differs from Grimshaw's MINIMAL PROJECTION in one important respect, though. Ultimately, *VACUOUS-XP is best conceived as a constraint that penalizes a DEPENDENCY violation (McCarthy & Prince 1995), and not just an Economy of Structure violation. This is because candidates that project an XP with a "dummy" head (either null or overt) are including a head in the output that does not have any corresponding element in the input. In other words, projecting *any* phrase (whether vacuous or contentful) will result in a number of violations of the constraints that regulate Economy of Structure (see Grimshaw 1997, 2001). But projecting a vacuous XP further carries with it a DEPENDENCY violation. It is this kind of violation that *VACUOUS-XP specifically targets. Given that projecting a vacuous XP brings with it a DEPENDENCY violation, but adjunctions does not, I further assume as a working hypothesis that universally *VACUOUS-XP outranks *ADJUNCTION.

I also assume that *VACUOUS-XP is violated irrespective of whether the head of the vacuous XP remains null, as in (29b), or whether it is filled by movement of a contentful head, as in (29c). Candidates like (29b) and (29c) are different in that the former violates the OBLIGATORYHEAD (Ob-HD) constraint of Grimshaw (1997), whereas the latter does not. Yet they both violate *VACUOUS-XP because they

case it avoids a violation of the higher ranked *Pole/Theme. In other words, this is a case where the projection of extra structure is not entirely gratuitous, and so it cannot be ruled out independently by STAY and Ob-HD. This is where a constraint like MINIMAL PROJECTION or *VACUOUS-XP becomes necessary.

introduce a head X^0 which has no correspondent in the input.[33] In other words, movement into the head position of a vacuous XP does not prevent a violation of *VACUOUS-XP.

Now, by ranking both *VACUOUS-XP and *ADJUNCTION over *Pole/Theme, we arrive at the right result, as shown in (31). Candidate (31b), which corresponds to (29a), loses to candidate (31a) because of its violation of *ADJUNCTION. Candidates (31c) and (31d), where a vacuous XP is projected to host the topic in its specifier in order to avoid a violation of *Pole/Theme, are ruled out because of their violation of *VACUOUS-XP, independently of whether or not the verb moves to the head position of XP.

(31) INPUT: <arrive (x), x=your brother (Th), x=[topic] >

	TOPIC FIRST	*VAC XP	*ADJ	*Pole/ Theme	EPP
☞ a. $[_{IP}$ [tu hermano]$_{Top}$ llegó $[_{VP}$]]				*	
b. $[_{IP}$ [tu hermano]$_{Top}$ $[_{IP}$ __ llegó $[_{VP}$]]]			*!		*
c. $[_{XP}$ [tu hermano]$_{Top}$ ø $[_{IP}$ __ llegó $[_{VP}$]]]		*!			*
d. $[_{XP}$ [tu hermano]$_{Top}$ llegó $[_{IP}$ __ *t* $[_{VP}$]]]		*!			*

For the time being we have no evidence for the relative ranking of TOPICFIRST with respect to either *ADJUNCTION or *VACUOUS XP; any ranking of these three constraint will give the right result since the winning candidate satisfies them all.

[33] The fact that (29b) violates Ob-HD but (29c) does not have any effect in the analysis that follows, since Ob-HD is a fairly low-ranked constraint in Spanish (see preceding footnote).

Later in this chapter I will argue for the relative ranking of TOPICFIRST and *ADJUNCTION.

4.3.3 Topic and Focus

At this point, we can return to the OVS examples introduced in the section on focus. Recall that in Mexican Spanish OVS corresponds to the order observed in clauses where the subject is in focus, and where both the subject and the object are realized as lexical XPs.

(32) Quién compró los discos?
Who bought the records?'

a. #[Una muchacha]$_{FOC}$ compró los discos. **S V O**
a girl *bought* *the records*

b. Los discos los compró [una muchacha]$_{FOC}$. **O V S**
the records ACC-CL *bought* *a* *girl*
'A GIRL bought the records.'

I suggest that (32b) involves both focalization of the subject *and* topicalization of the direct object. Notice that the fronted object in (32b) has an instantiation in the previous discourse (i.e., in the *wh*-question) and so it meets the sufficient condition required for it to appear as a sentence topic.

In terms of my analysis, the object DP is fronted to the Pole position to satisfy TOPICFIRST. The subject DP in focus, on the other hand, remains in its VP-internal position, [Spec, V]. After V-to-I movement the subject corresponds to the sentence

final constituent, so it receives the nuclear accent and FOCUSPROMINENCE is satisfied. This analysis is presented in (33). At present I have no clear evidence for the relative ranking of FOCUSPROMINENCE with respect to TOPICFIRST and *Pole/Theme but this bears no consequences for the data under consideration, since the winning candidate does not violate either.[34]

(33) OVS clauses; subject focus, object topic.
INPUT: <buy (x, y), x=a girl (Ag), x=[focus], y=the records (Th), y=[topic]>

	FOCUS PROM	TOPIC FIRST	*Pole/ Theme	EPP
a. [$_{IP}$ [una muchacha]$_{Foc}$ compró [$_{VP}$ [LOS DISCOS]$_{Top}$]] **SVO**	*!	*!		
☞ b. [$_{IP}$ [los discos]$_{Top}$] los compró [$_{VP}$ [UNA MUCHACHA]$_{Foc}$] **OVS**			*	

I noted in §4.2.3 that OVS clauses are not felicitous instances of sentence focus in Spanish, for reasons of structural markedness. At this point, we can add a further observation to that analysis. A topical DP with a *theme* semantic role (whether a DO or an unaccusative subject) can occupy the Pole in order to satisfy TOPICFIRST. But in cases of sentence focus every element of the clause is a focus and so TOPICFIRST has no say in the matter. As discussed in §4.2.3, the competition between the SVO and OVS candidates is then decided on structural markedness considerations. The SVO candidate, which has an *agent* as the Pole, emerges as the winner by virtue of having a degree of structural markedness lower than that of the OVS candidate, which

[34] Recall that the evidence from subject inversion when the direct object is dropped only allows us to conclude that FOCUS PROMINENCE outranks EPP in Spanish.

has a *theme* as the Pole.

We have seen how the requirements of TOPICFIRST can make an unaccusative subject or a direct object surface in the Pole, contrary to what is observed in the unmarked case. In this analysis, the EPP is satisfied as an indirect consequence of topicalization. One further observation is important at this point. In unaccusative sentences the *theme* subject is the only argument of the verb, and in OVS sentences with subject focus there is an independent condition that prevents the subject from surfacing as the Pole, namely, the requirement that it appear in the sentence-final position in order to satisfy FOCUSPROMINENCE. However, the analysis also accounts for cases where an *agent* subject could in principle surface as the Pole, but where in fact it does not, because another topical XP has already satisfied the EPP, making movement of the *agent* subject to [Spec, I] unnecessary. This can be seen in Adv-VSO sentences like (21a), repeated here as (34).

(34) Ayer compró Juan el periódico. Adv V S O
yesterday bought Juan the newspaper
'Yesterday Juan bought the newspaper.'

The analysis I propose for this sentence is one where the fronted adverbial corresponds to the topic, and the rest of the sentence corresponds to the focus. This is in accordance with the characterization in Zubizarreta (1998) of XP-VSO sentences in Spanish as *topic-comment* structures. The crucial question that we need to address is what prevents the subject from surfacing in its canonical preverbal position in

topic-comment sentences like (34). Satisfaction of FOCUS PROMINENCE is not an issue here. Given that the focus domain is formed by the subject, the verb, and the object, any order of these three constituents will still result in two violations of FOCUS PROMINENCE, since only one of them (the one in sentence final position) can be signaled with the sentential accent (see §4.2.3).

This is what makes (34) crucially different from the case of subject focus in (33). In (34) the *agent* subject could in principle surface in the preverbal position, providing the sentence with the least marked instance of a Pole. But in my analysis, such a structure is ruled out by Economy of Structure considerations. In order to have both the subject in [Spec, I] and to satisfy the TOPICFIRST requirement on the topical temporal adverb, an extra layer of structure would have to be projected to host the topic. The resulting structure loses to the one where the only fronted element is the topic, which satisfies the EPP in [Spec, I] as a consequence of complying with TOPICFIRST. The desired result is achieved by ranking both *VACUOUS-XP and *ADJUNCTION above all the constraints in the Pole Hierarchy. The ranking of the relevant constraints so far is presented in (35).

(35) TOPICFIRST, *VACUOUS XP >> *ADJUNCTION >> *Pole/Reason >> ... >> *Pole/Theme >> EPP >>*Pole/Experiencer >> *Pole/Agent.

The analysis of (34) under this ranking is shown in tableau (36). Candidate (36b) projects a vacuous XP to host the topical temporal adverb in its specifier; TOPICFIRST is satisfied, and a violation of *Pole/Temporal is avoided by having the topic outside

the Pole. Instead the EPP is satisfied by the subject *agent*, which, as mentioned, constitutes the least marked instance of a Pole. But the resulting violation of *VACUOUS XP proves fatal in my proposed constraint ranking of Spanish. The situation with candidate (36c) is in essence the same, with the exception that instead of projecting a vacuous XP, this candidate adjoins the topic to IP, and so it is ruled out because of its violation of *ADJUNCTION. In this way, candidate (36a) emerges as the optimal realization of the *topic-comment* input.[35]

(36) 'Yesterday Juan bought the newspaper'; Topic= *ayer* 'yesterday'
INPUT: <buy (x, y; z), buy=[focus], x=Juan (Ag), x=[focus],
y=the newspaper (Th), y=[focus]; z=yesterday (Temp), z=[topic] >

	TOPIC FIRST	*VAC XP	*ADJ	*Pole/ Temp	EPP
☞ a. $[_{IP}$ [ayer]$_{Top}$ compró $[_{VP}$ Juan el periódico]]. **Adv-VSO**				*	
b. $[_{XP}$ [ayer]$_{Top}$ Ø $[_{IP}$ Juan compró $[_{VP}$ el periódico]]]. **Adv-SVO**		*!			
c. $[_{IP}$ [ayer]$_{Top}$ $[_{IP}$ Juan compró $[_{VP}$ el periódico]]]. **Adv-SVO**			*!		

We are now in a position where we can address one of the central empirical observations of this dissertation, the fact that VSO clauses with an empty preverbal position are not tolerated in Mexican Spanish. A relevant paradigm reflecting this state of affairs is presented in (37) below. Following the discussion of adverbial expressions and word order in §2.1.1, I assume that *ayer* 'yesterday' in (37a) and

[35] Spanish does allow for Adv-SVO sentences like the losing candidates (36b,c), of course, but my claim is that in these cases the subject is also a topic. In contrast to what is observed in Adv-VSO sentences, if both the subject and the adverb are topics, they both have to be fronted to the left periphery to satisfy TOPICFIRST. This issue is discussed in detail in §4.3.5.

(37c) can be base-generated at the left edge of VP and V-to-I movement derives the order in which the verb precedes the adverb (Pollock 1989). For (37b) I assume that the adverb moves from its base position to [Spec, I].

(37) MEXICAN SPANISH
a. Juan compró ayer el periódico. S V Adv O
Juan bought yesterday the newspaper
'John bought the newspaper yesterday.'

b. Ayer compró Juan el periódico. Adv VSO
yesterday bought Juan the newspaper
'Yesterday John bought the newspaper.'

c. *Compró ayer Juan el periódico. V Adv SO
bought yesterday Juan the newspaper

In the current analysis the unacceptability of (37c) is explained by the fact that it is never an optimal candidate under the ranking of constraints of Mexican Spanish. Consider first the SV-Adv-O example (37a). When there is no XP specified as a topic, the SV-Adv-O candidate, which has the least marked instance of a Pole, emerges as the winner as a result of the ranking *Pole/Temporal >>EPP >> *Pole/Agent. This analysis is presented in (38). In this tableau, candidate (38b), where the adverbial XP moves to the Pole position, loses because of its violation of *Pole/Temporal. Candidate (38c), which corresponds to (37c), does not violate any of the constraints in the Pole Hierarchy by leaving the Pole position empty, but loses to (38a) because of its violation of EPP.

(38) No topic (i.e. sentence focus); 'Juan bought the newspaper yesterday.'
INPUT: <buy (x, y; z), x=Juan (Ag), y=the newspaper (Th);
z=yesterday (Temp)>

	*Pole/ Temp	EPP	*Pole/ Agent
☞ a. [$_{IP}$ Juan compró [$_{VP}$ ayer el periódico]]. **SV-Adv-O**			*
b. [$_{IP}$ ayer compró [$_{VP}$ Juan el periódico]]. **Adv-VSO**	*!		
c. [$_{IP}$ compró [$_{VP}$ ayer Juan el periódico]]. **V-Adv-SO**		*!	

Consider now an input where the adverb is the topic of the sentence, as in the analysis of (37b) in (36). As shown in tableau (39), the optimal candidate in this case is the one where the temporal adverb surfaces as the Pole in order to satisfy TOPICFIRST. The other two candidates, where the adverb is not the clause-initial element, lose because of their violations of TOPICFIRST.

(39) Topic = *ayer* 'yesterday': 'Yesterday Juan bought the newspaper.'
INPUT: <buy (x, y; z), x=Juan (Ag), y=the newspaper (Th);
z=yesterday (Temp), z=[topic] >

	TOPIC FIRST	*Pole/ Temp	EPP	*Pole/ Agent
a. [$_{IP}$ Juan compró [$_{VP}$ [ayer]$_{Top}$ el periódico]]. **SV-Adv-O**	**!			*
☞ b. [$_{IP}$ [ayer]$_{Top}$ compró [$_{VP}$ Juan el periódico]]. **Adv-VSO**		*		
c. [$_{IP}$ compró [$_{VP}$ [ayer]$_{Top}$ Juan el periódico]]. **V-Adv-SO**	*!		*	

Crucially, the V-Adv-SO candidate that leaves the Pole position empty does not emerge as a winner in either (38) or (39), and in this way (37c) is accounted for. In other words, given the ranking of constraints in Mexican Spanish there is no input

that will have _VSO as its optimal output. This, I claim, is what makes transitive clauses with an empty preverbal position sentences ungrammatical (see the discussion of my characterization of ungrammaticality in OT syntax in §1.2).[36]

It is worth highlighting the importance of this result by comparing a contrast in grammaticality like the one above with a contrast in felicity. Such a contrast is observed in the examples in (32), repeated here as (40).

(40) Quién compró los discos?
Who bought the records?'

a. #[Una muchacha]$_{FOC}$ compró los discos. **S V O**
a girl *bought* *the records*

b. Los discos los compró [una muchacha]$_{FOC}$. **O V S**
the records ACC-CL *bought* *a* *girl*
'A GIRL bought the records.'

The SVO sentence in (40a) is obviously not an ungrammatical sentence, in contrast with (37c). It is in fact the felicitous word order in cases of sentence focus, as discussed in §4.2.3. In terms of my analysis, the difference between infelicity and ungrammaticality is that an infelicitous sentence *does* emerge as an optimal output for *some* input under the constraint ranking of the language. In a context where a sentence is judged as infelicitous, this is because it does not correspond to the

[36] A further argument in favor of this characterization of ungrammaticality in OT, in this case related to the interaction between topicalization and negation, can be found in Gutiérrez-Bravo (2000b).

candidate that the constraint ranking selects as the winner for the input defined by this context.

This analysis achieves two things. First, it dispels the potential criticism that comparing infelicitous and ungrammatical sentences as part of the same candidate set involves comparing two completely different sets of phenomena governed by different grammatical principles. Second, it is no longer necessary to claim (for theory-internal reasons) that all losing candidates correspond to ungrammatical sentences, which involves claiming that, for instance, the SVO sentence in (40a) *is* ungrammatical in a subject focus context (cf. Grimshaw & Samek-Lodovici 1998).

4.3.4 Presentational sentences

The discussion so far raises the question of what the analysis should be of VSO sentences in those varieties of Spanish that do allow for them. Here I cannot provide a detailed analysis of these varieties, but some tentative observations can be made at this point. Niño (1993a, 1993b) suggests that VSO sentences in Spanish are presentational in nature.[37] An example is presented below (presumably from Venezuelan Spanish).

(41) Cazaron los hombres un ciervo. **VSO**
*hunt-*3PL-PAST *the men a deer*
'The men hunted a deer'. Niño (1993b: 2)

[37] This is consistent with the proposal in Alexiadou & Anagnostopoulou (1998) that VSO sentences in Spanish and Greek are closely related to Transitive Expletive Constructions in some Germanic languages.

Niño notes that (41) has a reading where the proposition is described as an activity, very much in character with a presentational function.[38] Niño (1993a) further observes that many instances where VSO sentences are slightly deviant are improved when a topical temporal adverb appears in the preverbal position, a pattern reminiscent of Mexican Spanish.[39] Following Diesing (1990), Niño takes this position to be the position also occupied by fronted subjects, namely [Spec, I]. The basis of Niño's (1993a) analysis is to claim that there are discourse conditions that allow a VSO sentence to "stand on its own" without the need to project [Spec, I]. Niño (1993b) proposes that these are the discourse conditions that require a presentational sentence. But those clauses that are not signaled as presentational require an element in [Spec, I], the subject in the unmarked case, or a temporal adverb functioning as a topic.

I suggest that the OT proposal I have developed is compatible with Niño's analysis under the following assumptions. Assume that the presentational nature of a proposition is expressed in the input by a feature [thetic], and that the correspondence between this feature in the input and the output representation is governed by the constraint in (42).

[38] It has also been noted in the literature that in VSO sentences the subject can sometimes be in focus. Niño (1993b), however, argues convincingly that focussing of the subject is not the primary function of this kind of sentence, a conclusion also arrived at in Zubizarreta (1998). Putting the analyses of these two authors together, it seems to me that these cases are instances of presentational sentences where the subject is a contrastive focus accented *in-situ* in its VP-internal position (see §4.2.1).

[39] Niño (1993a) notes that in the variety of Spanish she considers only fronted temporal adverbs can fulfill this function, which is not what is observed in Mexican Spanish, though.

(42) THETIC CONDITION (THET-CON)
A [+verbal] extended projection is thetic iff its highest inflectional element c-commands all of the arguments of the lexical head of the extended projection.

As such, this is a purely descriptive constraint, and it should presumably be derived by more subtle semantic considerations. However, it will suffice for illustrating the point at hand. The variety of Spanish described in Niño (1993a, b) can now be characterized by having the ranking THET-CON >> EPP. In other words, when the input bears the feature [thetic], the optimal output corresponds to a VSO sentence, which violates the EPP because it lacks a Pole altogether, but satisfies THET-CON because the verb in I^0 (asymmetrically) c-commands all of its arguments. However, when the input does not bear this feature, then the effects of THET-CON are neutralized, and the EPP once again plays a crucial role. The Pole must now be filled, either by the subject or by a fronted topic, and in this case the variety of Spanish in Niño (1993a, b) behaves similarly to Mexican Spanish.

On the other hand, Mexican Spanish would be characterized by the opposite ranking, EPP >> THET-CON. Given this ranking, the optimal candidate will be one that has a fronted XP as a Pole, even if this means that the condition on presentational sentences is violated. This is illustrated for the simple transitive sentence (41) in the tableau in (43). In the input [TH] stands for the abbreviation of the feature [thetic]. Notice that candidate (43a) violates THET-CON because the subject in [Spec, I] c-commands the verb in I^0.

(43) MEXICAN SPANISH: Thetic input of a transitive predicate.
INPUT: <[TH] hunt (x, y), x=the men (Ag), y=a deer (Th)>

	EPP	THET CON	*Pole/ Agent
☞ a. [$_{IP}$ los hombres cazaron [$_{VP}$ un ciervo]] **SVO**		*	*
b. [$_{IP}$ cazaron [$_{VP}$ los hombres un ciervo]] **VSO**	*!		

In other words, by prioritizing the satisfaction of the EPP, transitive clauses in Mexican Spanish can in a sense be unfaithful to the semantic specification of an input as [thetic]. Ultimately, my sense is that this phenomenon is best conceived as an instance of neutralization, as understood in phonology (see also Legendre et. al. 1998, and McCarthy 2002). In the same way that a feature distinction present in underlying segments can be neutralized in the surface representation, the ranking of constraints in Mexican Spanish is such that it neutralizes two different inputs, <V(x, y)> and <[TH] V(x, y)>, into the same surface representation, SVO.[40]

Notice that this result can be achieved because the EPP in an OT analysis is always an active requirement of the grammar, even if it can be overruled in some cases because of its ranking relative to other constraints. Once again, if we were to claim that Mexican Spanish has an active EPP requirement absent in VSO varieties of Spanish we would be at a loss in explaining why they behave similarly when a

[40] The current analysis thus avoids the problem of ineffability, in a way similar to the one proposed in Legendre et. al. (1998). It is not the case that a presentational input with a transitive predicate in Mexican Spanish has no output. Rather, given the ranking of constraints of Mexican Spanish, the output of such an input is not distinct from the output of a simple transitive input.

transitive sentence does not have a presentational reading (i.e., in the SVO unmarked order and XP-VSO *topic-comment* sentences).

4.3.5 VOS sentences

At this point we can provide an analysis of the VOS sentences first introduced in §4.2.1. As already noted, VOS sentences can only have an interpretation where the subject is the only constituent in focus. Furthermore, such sentences are not tolerated in Mexican Spanish. In providing an account of these sentences, I follow the analysis in Ordóñez (1998), where their surface word order is derived by scrambling of the direct object, as in the example in (44), originally from Torrego (1984). I also follow the analysis in Zubizarreta (1998), where this scrambling operation is driven by the need to make the subject in focus the clause-final constituent, in order for it to be signaled by the nuclear accent.

(44) $[_{IP}$ Contestó $[_{VP}$ la pregunta$_i$ $[_{VP}$ Juan t_i]]] **V O S**
answered *the question* *Juan*
'JUAN answered the question.'

My suggestion is that VOS sentences in Peninsular and other varieties of Spanish are presentational sentences (as defined in the previous section) where the subject is in focus. The direct object scrambles to allow the subject to appear in the clause-final position, but it remains in a position where it can be c-commanded by the verb in I^0, in compliance with THET-CON.

Now, the current analysis accounts for the absence of VOS sentences in Mexican Spanish without the need of any extra machinery. We have seen in the previous section that THET-CON is a fairly low-ranked constraint in Mexican Spanish, and concretely, it is outranked by the EPP. Further notice that scrambling of the direct object in (44) results in adjunction, and that *ADJUNCTION outranks both the EPP and all of the constraints in the Pole Hierarchy. The relevant ranking is repeated in (45).

(45) TOPICFIRST, *VACUOUS XP >> *ADJUNCTION >> *Pole/Reason >> ... >> *Pole/Theme >> EPP >>*Pole/Experiencer >> *Pole/Agent.

Under this ranking, VOS does not emerge as the winning candidate for a thetic input with the subject in focus, as shown in tableau (46). Since the subject is in focus, the direct object has to move to move from its base position to allow the subject to be clause-final. The VOS candidate (46a) achieves this by scrambling the direct object, while the OVS candidate (46b) moves the direct object into the Pole instead. However, the violation of *ADJUNCTION that the VOS candidate incurs proves fatal when compared with the violation of *Pole/Theme of the OVS candidate. Consequently, even though the VOS candidate satisfies THET-CON and thus it is faithful to the [thetic] specification in the input, it loses to the OVS candidate, which violates THET-CON but avoids the projection of any vacuous structure and further

satisfies the EPP.[41] The structure and gloss of the winning candidate is presented in (47).

(46) MEXICAN SPANISH: Thetic input of a transitive predicate with subject in focus.
INPUT: <[TH] answer (x, y), x=Juan (Ag), x= [focus], y=the question (Th)>

	*ADJ	*Pole/ Theme	EPP	THET CON
a. [$_{IP}$ contestó [$_{VP}$ la pregunta [$_{VP}$ Juan]]] **VOS**	*!		*	
☞ b. [$_{IP}$ la pregunta la contestó [$_{VP}$ Juan]] **OVS**		*		*

(47) [$_{IP}$ La pregunta$_i$ la contestó [$_{VP}$ Juan t_i]] **O V S**
the question ACC-CL *answered* *Juan*
'JUAN answered the question.'

Notice that this is a case where the direct object occupies the Pole position even though it is not specified as a topic in the input.[42] The result of this is that the analysis in (46) again corresponds to an instance of neutralization. Given the constraint ranking of Mexican Spanish, the thetic input <[TH] V(x, y), x=[focus]> and the non-thetic input <V(x, y), x=[focus], y=[topic]> (see §4.3.3). both have OVS as their output representation. In this way, the absence of VOS sentences in Mexican Spanish is accounted for.

[41] Notice that this indicates that THET-CON outranks *ADJUNCTION in Peninsular Spanish. Otherwise the VOS candidate in this variety would lose in the same way that it does in Mexican Spanish.
[42] This indicates that topicalization is not the only factor that makes a constituent surface as the Pole that would not do so in the unmarked work order. This is an issue that should be addressed in future research.

4.3.6 Default Topics

I now consider an alternative to the analysis of unmarked word order developed in §3, which emerges from the discussion of topicalization. I have argued that different kinds of XPs can appear in the Pole and satisfy the EPP by virtue of being topics. Yet this raises the question of whether this could be the factor that derives unmarked word order in the first place. That is, we need to consider if subjects in the unmarked SVO order might surface in the preverbal position because they are "default" topics instead.

In fact, the analysis of subjects as default topics in Spanish has been fairly widespread in the literature, starting with Meyer (1972). This idea has gained even more appeal in recent years, as there is increasing evidence that preverbal subjects in Spanish behave like left-dislocated XPs in an A-Bar position (see Ordóñez & Treviño 1999). Yet, there are a number of empirical and conceptual reasons that make the *default topic* analysis problematic.

Empirically, we have seen in §3.4 and §4.3 that fronted topics create islands for extraction, but Goodall (2001), who also argues that preverbal subjects in Spanish move to satisfy the EPP, notes that fronted subjects do not lead to island effects. The relevant contrast is repeated in (48a-b). As mentioned in §4.3 (fn. 19), subjects clearly functioning as topics (such as fronted unaccusative subjects) do not lead to such strong island effects, but there is still a contrast between (48b) and (48c).[43]

[43] The glosses of (48a-b) are partially my own. Here I will not attempt to provide an analysis of the contrast in (48), since such an analysis would require a detailed OT characterization of island effects. It

(48) a. *A quién crees [que el premio se lo dieron]?
to whom you-think that the prize DAT-CL ACC-CL *they-gave*
(Lit. 'Who do you think that the prize they gave to?')

b. A quién crees [que Juan le dio el premio]?
to whom you-think that Juan DAT-CL *gave the prize*
'Who do you think that Juan gave the prize to?' (Goodall 2001)

c. ?Cuándo$_i$ dices [que tu hermano llegó t_i]?
when you-say that your brother arrived.
'When did you say that your brother ARRIVED?'

Providing a formal characterization of the notion of default topic is equally (if not more) problematic. Claiming that a subject corresponds to the default topic amounts to assigning a specific pragmatic property to a specific grammatical relation. In both Minimalist and OT analyses this ultimately amounts to saying that the subject bears the feature [topic] by virtue of its grammatical relation. But if this is so, then we need some mechanism to remove this feature when the subject is clearly not functioning as a topic, as in the subject inversion cases we have discussed throughout this chapter. Furthermore, such a mechanism would face serious problems in accounting for cases of sentence focus. The standard assumption in these cases is that every element in the clause is focal, including the subject, so this would also be a case where the subject's default [topic] feature would have to be removed. But, crucially, the subject still appears in the preverbal position in cases of sentence focus (see §4.2.3), which

needs to be pointed out that in Goodall (2001) the contrast between (48a) and (48b) is presented as evidence that subjects and topics occupy different structural positions in Spanish. However, independently of what the analysis of topic islands ultimately is, Goodall's claim is difficult to reconcile with the data from ellipsis and the distribution of non-subject negative XPs discussed in §2.

disconfirms the hypothesis that its movement to the preverbal position is dependent on having a feature [topic] in the default case.

Even assuming that such a feature removal mechanism could be developed and defined in some coherent way, the resulting analysis would still make the wrong predictions with respect to word order. Concretely, if subjects bear a default [topic] feature and if they appear in the preverbal position in transitive clauses as a result of bearing this feature, then it goes unexplained why in psych predicates it is the dative *experiencer* and not the subject that appears in the preverbal position in the unmarked case. Notice that even if we assign the default [topic] feature not to the subject, but to the argument of the verb that ranks highest in the thematic hierarchy, we still get the wrong result. This is because the *theme* argument of unaccusative sentences and impersonal passives would still be assigned this default feature (since there are no *agent* or *experiencer* arguments in this case) and would be predicted to undergo fronting as the default topic in the unmarked case, contrary to fact.

In my analysis, where the unmarked word order is derived in a way that is entirely independent of topicalization, all these complications are avoided. Furthermore, just like the *default topic* analysis, my analysis is compatible with the evidence that the position occupied by preverbal subjects is an A-Bar position in Spanish. This is because, as discussed in §3, movement of *agent* subjects and dative *experiencers* to this position is not movement to satisfy any of the A-properties of these moved XPs, but rather it is driven by the need to satisfy the EPP.

4.3.7 Multiple Topics

To conclude this chapter, I show how the analysis of topicalization accounts for cases where there is more than one sentence topic. Spanish readily allows for clauses with multiple topics, as is well known.[44] Some examples are presented below.

(49) a. Esta carta el criado la trajo para mí.
this letter the servant ACC-CL *brought for me*
'This letter the servant brought for me.' (Contreras 1976)

b. En este bar, Max escribió su primera novela.
in this bar Max wrote his first novel
'In this bar, Max wrote his first novel.' (Zubizarreta 1998:102)

c. Ayer a María la vieron con su novio.
yesterday ACC *María* ACC-CL *they-sawwith her boyfriend*
'Yesterday they saw Mary with her boyfriend.'
(Hernanz & Brucart 1987:82)

In sentences like (49a) and (49b) one of the fronted topics corresponds to the subject, but this is not a necessary requirement, as shown in (49c), where the fronted topics correspond to an temporal adverb and the direct object. Notice that in (49) we observe a situation different from the one in *topic-comment* sentences that have a single topic, namely, this is a case where extra structure *is* projected to accommodate the multiple topics. This means that Spanish prioritizes the requirement to have topics in a leftmost position over complying with Economy of Structure. In terms of my analysis, this means that TOPICFIRST must outrank at least one of the NO VACUOUS STRUCTURE constraints in (30). Consequently, in principle there are two possible

[44] See also Vallduví (1992) for Catalan and Rizzi (1997) for Italian.

analyses of the examples in (49). In one analysis, one of the topics surfaces in the Pole and the leftmost topic is adjoined to IP (which violates *ADJUNCTION). In the other, one of the topics also surfaces in the Pole, but the leftmost topic is in the specifier of a vacuous XP projected to host the topic (which violates *VACUOUS-XP). These two alternatives are presented for (49c) in (50).[45]

(50) a. [$_{IP}$ Ayer [$_{IP}$ a María la vieron [$_{VP}$ con su novio]]].
yesterday ACC *María* ACC-CL *they-saw with her boyfriend*
'Yesterday they saw Mary with her boyfriend.'

b. [$_{XP}$ Ayer Ø [$_{IP}$ a María la vieron [$_{VP}$ con su novio]]].
yesterday ACC *María* ACC-CL *they-saw with her boyfriend*
'Yesterday they saw Mary with her boyfriend.'

However, given our working hypothesis that *VACUOUS-XP outranks *ADJUNCTION (§4.3.1), the adjunction structure in (50a) will surface as the winner irrespective of whether TOPICFIRST outranks both *VACUOUS-XP and *ADJUNCTION or just *ADJUNCTION. This is shown in tableau (51), where it can be seen that the reverse ranking of *VACUOUS-XP and TOPICFIRST gives the same result.

[45] Recall that I assume that Spanish does not allow for multiple specifiers (§1.2.2). Consequently, I do not consider such an option for the cases at hand.

(51) INPUT: <see(w, x; y, z), w=*pro* [3rd.Pl.], x=María, x=[topic];
y=yesterday, y=[topic], z=with her boyfriend >

	*VAC XP	TOPIC FIRST	*ADJ
☞ a. $[_{IP}$ [ayer]$_{Top}$ $[_{IP}$ [a María]$_{Top}$ la vieron $[_{VP}$ con su novio]]]		*	*
b. $[_{XP}$ [ayer]$_{Top}$ ø $[_{IP}$ [a María]$_{Top}$ la vieron $[_{VP}$ con su novio]]]	*!	*	
c. $[_{IP}$ [ayer]$_{Top}$ vieron $[_{VP}$ [a María]$_{Top}$ con su novio]]		**!	
d. $[_{IP}$ [a María]$_{Top}$ la vieron $[_{VP}$ [ayer]$_{Top}$ con su novio]]		**!	

Let us go through the candidates in (51) one by one. Notice that violations of TOPICFIRST are unavoidable when more than one topic is involved: even if both topics appear in a left-peripheral position, as in (51a) and (51b), the topic in the Pole is c-commanded by the leftmost topic, which results in one violation of TOPICFIRST (recall that TOPICFIRST is violated once for every XP or X^0 that c-commands a topic). However, my gradient definition of TOPICFIRST still makes each topic move as much as possible to the left periphery to avoid even more violations of this constraint. This is most clearly observed in candidates (51c) and (51d). These candidates have one topic in the Pole, but leave the other one in its VP-internal position. The result is that neither of these candidates violates *VACUOUS XP nor *ADJUNCTION.[46] But by doing so they incur in an extra violation of TOPICFIRST. This is because in these two candidates (as opposed to 51a and 51b) both the topic in [Spec, I] *and* the verb in I^0 c-command the topic. The extra violation of TOPICFIRST proves fatal and so

[46] More generally, they comply better with Economy of Structure than the attested output.

candidates (51c) and (51d) are ruled out of the competition. Candidates (51a) and (51b) satisfy TOPICFIRST as much as possible by fronting both topics to a left peripheral position, which results in the projection of extra structure to host the second topic.[47] When comparing this pair, candidate (51b)'s violation of *VACUOUS XP proves more costly than candidate (51a)'s violation of *ADJUNCTION, and so (51b) loses to (51a). Incidentally, notice that in my analysis the gradient definition of TOPICFIRST captures the same effect that is achieved in Rizzi (1997) with multiple Topic Phrases, with the added advantage that it simplifies the structure of the left periphery considerably.[48]

Since the data under consideration does not allow us to determine what the strict ranking between *VACUOUS-XP and TOPICFIRST is, I will leave these constraints unranked with respect to one another. The full ranking of the constraints relevant to topicalization thus corresponds to (52).

(52) *VACUOUS XP, TOPICFIRST >> *ADJUNCTION >>*Pole/Reason >>
*Pole/Manner-Temporal >> *Pole/Locative >> *Pole/Theme >> EPP >>
*Pole/Experiencer >> *Pole/Agent.

[47] As opposed to what we see in the *topic-comment* sentences with a single topic discussed in §4.3.3, the projection of extra structure is not gratuitous when multiple topics are involved. Rather, it is necessary in order to violate TOPICFIRST as little as possible.

[48] Ultimately, this issue is not just a question of simplicity of the resulting structure. Analyses that postulate the existence of Topic Phrases usually run into problems when it needs to be determined what the status of such phrases is with respect to locality, adjacency, etc., in those cases where there are no sentence topics in the first place. See for example Rizzi (1997), where it is necessary to stipulate that Topic Phrases are only projected when there is a topic present in order to account for the "anti-adjacency effects" in the analysis of topicalization in English.

As such, (51) provides the basic analysis of multiple topicalization. There is, however, one more important property of multiple topic constructions that has not been observed in the literature (to the best of my knowledge), namely, that the relative order of the multiple topics is not entirely free. By and large, examples of multiple topicalization in the literature follow a pattern where the innermost topic (i.e., the one immediately to the left of the verb) is the one that ranks higher in the Thematic Hierarchy (§3.2.1). The examples in (49) all show this pattern. In (49a) and (49b) the two topics are a *theme* and *agent*, and a *locative* and an *agent*, respectively. In both cases the *agent* is the innermost topic. Notice again that this pattern is not dependent on the presence of a subject or an *agent*. In (49c) the two topics are a *temporal* adverbial and a *theme* direct object, and, again following the Thematic Hierarchy, the *theme* is the innermost topic.

In fact, when asked to judge sentences with multiple topics without any preceding context, speakers systematically prefer this pattern. Some examples are presented below. The semantic role and relative order of each of the topics is presented to the right of each example sentence.

(53) MULTIPLE TOPICS: NO PRECEDING CONTEXT

a. Por eso Pedro visita a sus padres todos los años.
for that Pedro visits ACC *his parents all the years*
'Because of that, Pedro visits his parents every year.' ***Reason > Agent***

b. #Pedro por eso visita a sus padres todos los años.
Pedro for that visits ACC *his parents all the years* ***Agent > Reason***

(54) a. El periódico Pedro lo compró ayer.
the newspaper Pedro ACC-CL *bought yesterday*
'The newspaper, Pedro bought it yesterday.' ***Theme > Agent***

b. ??Pedro el periódico lo compró ayer.
Pedro the newspaper ACC-CL *bought yesterday* ***Agent > Theme***

(55) a. En Tijuana a Pedro le molesta el ruido del tráfico.[49]
in Tijuana to Pedro DAT-CL *bothers the noise of-the traffic*
'In Tijuana, the noise from traffic bothers Pedro.' ***Locative > Exper***

b. #A Pedro en Tijuana le molesta el ruido del tráfico.
to Pedro in Tijuana DAT-CL *bothers the noise of-the traffic*
Exper > Locative

(56) a. De esta manera ayer se redactó el texto final.
of this way yesterday CL *wrote the text final*
'In this way, the final text was written yesterday.' ***Manner > Temporal***

b. #Ayer de esta manera se redactó el texto final.[50]
yesterday of this way CL *wrote the text final* ***Temporal > Manner***

It should be pointed out that most of the (b) examples in (53-56) are simply infelicitous, rather than ungrammatical. Although at this point I cannot characterize the pragmatic and discourse properties that license them, they can be readily found in spoken and written texts. As such, it appears that the pattern where the innermost

[49] Some speakers show an irregular pattern with respect to *experiencers* of Psych verbs (but not with other semantic roles). For these speakers, there are a number of cases where the only felicitous order is the one where the *experiencer* is the leftmost topic. It seems to me that animacy may help understand this pattern, since the *experiencer* of a psych verb is necessarily animate, but the *theme* subjects of such are verbs are typically not, and animacy is well-known to induce linear order effects in some languages (see Müller 1999). All of the speakers consulted have the same judgments for (58) below, however, where the *experiencer* is the innermost topic. More research is needed to clarify this issue, which I will leave open for the time being.

[50] Example (56) shows that there is in fact a distinction between *manner* and *temporal* adverbials, contrary to the Thematic Hierarchy adopted in §3.2.1. Henceforth I break up the constraint *Pole/Manner-Temporal into *Pole/Manner and *Pole/Temporal, with the former outranking the latter.

topic ranks higher in the thematic hierarchy simply corresponds to the unmarked (or least marked) pattern of multiple topicalization. Impressionistically, it seems to me that the opposite pattern (where the innermost topic ranks lower in the thematic hierarchy) necessarily gives the innermost topic a contrastive reading (see Lambrecht 1994 and Büring 1999 for the notion of *contrastive topic*). In contrast, in the unmarked pattern the innermost topic can but need not have a contrastive reading. Settling this issue goes beyond the scope of this dissertation. What we need at this point is to define some diagnostic for the unmarked multiple topicalization pattern observed in the (a) examples in (53-56) that neutralizes the pragmatic conditions under which the opposite pattern is licensed. I suggest that contrastive verb or adverb focus provides such a diagnostic.

We have seen in (§4.2) that contrastive foci mostly appear in the sentence final position in Mexican Spanish, in which their behavior is akin to that of presentational foci. Consider now a case of contrastive verb or adverb focus, where the clause under consideration has two XPs that function as either arguments or adjuncts of the verb. FOCUS PROMINENCE requires that the verb or adverb in focus appear in the sentence final position. If the two XP arguments or adjuncts have an instantiation in the previous discourse, they meet the sufficient requirement to function as sentence topics (see §4.3.1) and FOCUS PROMINENCE can be satisfied by fronting these XPs to the left periphery, after which the verb or adverb corresponds to the sentence-final constituent. Crucially, it seems reasonable to assume that in this case neither of the two XPs moves to the left periphery as the result of its specification as a contrastive

topic. Rather, given that they both meet the sufficient condition to function as sentence topics, they simply move out of the way to allow the verb or adverb to receive the nuclear accent in the sentence final position. In this context, we expect the (unmarked) pattern in (53-56) to emerge and this is indeed what is observed. Some examples are presented below.

(57) CONTRASTIVE VERB/ADVERB FOCUS
A. Pedro escribió la carta.
Pedro wrote the letter
'Pedro wrote the letter.'

a. B. No, la carta Pedro la **MANDÓ**. ***Theme > Agent***
no the letter Pedro ACC-CL *sent*
'No, Pedro SENT the letter.'

b. B. ??No, Pedro la carta la **MANDÓ**. ***Agent > Theme***
no, Pedro the letter ACC-CL *sent*

(58) A. Al comité le molesta su actitud.
to-the board-of-directors DAT-CL *bothers his attitude*
'His attitude irritates the board of directors.'

a. B. Al contrario, su actitud al comité
to-the contrary his attitude to-the board-of-directors
le **ENCANTA**. ***Theme > Exper***
DAT-CL *charms*
'On the contrary, the board of directors LOVES his attitude.'

b. B. #Al contrario, al comité su actitud
to-the contrary to-the board-of-directors his attitude
le **ENCANTA.**
DAT-CL *charms* ***Exper > Theme***

(59) A. Llueve mucho en Tijuana por eso.
it-rains much in Tijuana for that
'That is why it rains a lot in Tijuana.'

a. B. Al contrario, por eso en Tijuana llueve **POCO**. ***Reason > Loc***
to-the contrary for that in Tijuana it-rains few
'On the contrary, that's why in Tijuana it rains so LITTLE.'

b. B. #Al contrario, en Tijuana por eso llueve **POCO**. ***Loc > Reason***
to-the contrary in Tijuana for that it-rains few

Now the crucial observation is that the unmarked multiple topicalization pattern is exactly what my proposal predicts it should be. In my analysis, topics are fronted to the Pole specifier and this is a specifier position that is sensitive to the semantic role of the constituent that occupies it. As such, XPs whose semantic role ranks low in the Thematic Hierarchy are more marked Poles than XPs whose semantic role ranks high in this hierarchy. When there is a single topic, the issue of relative markedness does not arise. But when there are two topics, the constraint ranking I have proposed so far predicts that the topic that ranks higher in the Thematic Hierarchy will be the one that surfaces as the Pole (i.e., the innermost topic), all else being equal. This is because the resulting construction shows a lower degree of structural markedness than the alternative where the topic that ranks lower in the Thematic Hierarchy surfaces as the Pole. In terms of the OT analysis developed so far, this alternative is ruled out because it violates a constraint that is ranked higher in the Pole Hierarchy than the one violated by the attested output. This analysis is presented for (59) in the tableau below.

(60) INPUT: <rain (w; x, y, z), w=*pro* [3rd.SG], x=little, x=*focus*, y=in Tijuana, y=[topic], z=for that reason, z=[topic]>

	*ADJ	*Pole/ Reason	*Pole/ Locative
☞ a. [$_{IP}$ por eso [$_{IP}$ en Tijuana llueve [$_{VP}$ poco]]]	*		*
b. [$_{IP}$ en Tijuana [$_{IP}$ por eso llueve [$_{VP}$ poco]]]	*	*!	

Recall that both the *reason* and the *locative* adjuncts have to move to the left periphery in order to allow the focussed adverb *poco* 'few, little' to appear in the sentence final position. As in any multiple topic construction, a violation of *ADJUNCTION is unavoidable if both XPs are to be hosted in the left periphery. The final decision then rests on the markedness constraints of the Pole Hierarchy, and so candidate (57b), which places the *reason* adverbial in [Spec, I] loses because of its violation of *Pole/Reason. The winning candidate instead adjoins the *reason* adverbial to IP and makes the *locative* PP the Pole, which is the best outcome given this state of affairs. The ranking in (52) equally accounts directly for all the contrasts in (53-59), as I leave for the reader to verify.

The multiple topicalization data not only provide further support to my analysis where the Pole is a position that can host fronted topics. These same facts also disconfirm alternative analyses where all fronted topics land in a position other than the Pole (i.e. the analysis in Goodall 2001; analyses where every topic is adjoined to IP as in Contreras 1991; or analyses where they land in the specifiers of a multiple Topic Phrases, as in Rizzi 1997), since in these analyses it would go unexplained why the relative order of multiple topics is subject to thematic considerations.

Finally, the multiple topicalization facts also provide evidence against an alternative analysis of the unmarked word order in Mexican Spanish based on Alignment Constraints (McCarthy & Prince 1993).[51] In such an alternative analysis, instead of having the markedness constraints in the Pole Hierarchy, it would be possible to derive a hierarchy of alignment constraints sensitive to semantic roles, as in (61).[52] Once we have these constraints, the unmarked word order of transitive, psych and unaccusative clauses in Mexican Spanish discussed in the previous chapter can be accounted by the ranking in (62), where STAY immediately outranks ALIGN (THEME-L).

(61) ALIGN (AGENT-Left) >> ALIGN (EXPERIENCER-Left) >>
ALIGN (THEME-Left) >> ...

(62) **MEXICAN SPANISH**
ALIGN (AGENT-Left) >> ALIGN (EXPERIENCER-Left) >> STAY >>
ALIGN (THEME-Left) >> ...

The logic behind this kind of analysis is that every constituent with the specified semantic role has to be aligned with the left-edge of the clause, but STAY, the constraint that penalizes syntactic displacement, can signal the cut-off point at which it is better to leave a constituent in its base position than to move it to the left edge to

[51] The relevance of Alignment constraints in syntax has been proposed in Samek-Lodovici (1996), Costa (1998), Grimshaw & Samek-Lodovici (1998), Choi (1999), Sells (2000, 2001), among others.
[52] Formally, the constraints in (61) require that the left edge of the constituent bearing the specified semantic role be aligned with the left edge of the clause (or more precisely, the Extended Projection in terms of the analysis developed here). See McCarthy & Prince (1993) and especially Sells (2000, 2001) for details.

satisfy the corresponding alignment constraint. As can be seen in tableau (63), in the unmarked case VSO and OVS transitive sentences are ruled out because the *agent* subject is not Left-aligned with IP.[53]

(63) TRANSITIVE CLAUSES: UNMARKED WORD ORDER.
'A girl bought the records' = (16) in §4.2.3.
INPUT: <buy (x, y), x=a girl (Ag), y=the records (Th)>

		ALIGN AGT-L	STAY	ALIGN THE-L
☞ a. [$_{IP}$ una muchacha$_i$ compró [$_{VP}$ t$_i$ los discos]]	**SVO**		*	*
b. [$_{IP}$ compró [$_{VP}$ una muchacha los discos]]	**VSO**	*!		*
c. [$_{IP}$ los discos$_i$ los compró [$_{VP}$ una muchacha t$_i$]]	**OVS**	*!	*	

In the case of unaccusative sentences, the violation of STAY that results from aligning the *theme* subject with the left edge of the IP proves fatal, and the winning candidate is the one where the subject stays in its VP-internal position, as I leave for the reader to verify.

My proposal and the alternative Alignment proposal I have sketched out are not equivalent, though. The Alignment analysis makes a clear prediction: all else being equal, the *agent* will appear at the leftmost position in the clause. My proposal makes a different prediction: all else being equal, the *agent* will appear in the Pole specifier, which will sometimes, but not always, correspond to the leftmost position in the

[53] Alignment constraints are gradient constraints, so they can be violated more than once depending on the number of elements that intervene between the category to be aligned and the edge of the specified domain. For simplicity, in the tableaux that follow I do not represent the gradient violations of these constraints, since they will not be relevant for our discussion. Also, for simplicity violations of STAY resulting from V-to-I movement are left out of the tableaux.

clause. The prediction made by the Alignment analysis is not borne out by the multiple topicalization data, where the leftmost topic is the one whose semantic role ranks lower in the thematic hierarchy. In contrast, by appealing to the notion of the Pole as a position sensitive to thematic information, but which is not defined with respect to the left edge of the clause, my analysis derives the correct result.

4.4 Conclusions

In this chapter I have shown how the proposal developed in §2 and §3 can be extended to account for perturbations of the unmarked word order that result from information structure considerations. We have seen that focus-driven subject inversion in Spanish can be accounted for with the ranking FOCUSPROMINENCE >> EPP, and that the resulting analysis still predicts correctly that SVO will be attested output in cases of sentence focus, which is consistent with previous OT analyses of focalization and word order. With respect to topicalization, the central claim has been that the relevant facts can be explained by an analysis where sentence topics are fronted to the Pole specifier in order to satisfy TOPICFIRST. Alternatives where topics are fronted to a position other than the Pole are ruled out because of Economy of Structure considerations, all else being equal. In this analysis, fronted topics simultaneously satisfy the EPP by virtue of moving to the Pole specifier, and this explains why it is not necessary for the subject to move to [Spec, I] when some other argument or adjunct functions as a topic, as in XP-VSO *topic-comment* sentences. The proposed ranking of constraints for Mexican Spanish further explains why VSO

and VOS sentences are ungrammatical in this variety of Spanish. Lastly, we have seen that data from multiple topicalization provide further support for this analysis, since this data cannot be accounted for straightforwardly in analyses where topics land in a position other than the Pole, or in analyses where the unmarked word order is derived by alignment constraints.