

Parametric Variation, Functional Projections and Polarity in Romance Languages

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1 Introduction

Affirmatives are elements that contradict a previous negative utterance, as in (1).

- (1) I did **too** go to the store.

Affirmatives often generally parallel negatives with regard to their distribution but have opposite polarity values. Sentential affirmation, then, takes the same scope over a sentence as sentential negation. It is reasonable to expect an analysis that unifies negatives and affirmatives as much as possible, capturing the striking similarities between the two elements. The purpose of this paper is to investigate the distribution of negatives and affirmatives in Spanish and Italian, the cross-linguistic variation of these two elements, and the parametric variation that yields that cross-linguistic variation.

2 The distribution of negatives and affirmatives in Spanish and Italian

The positions of negatives and affirmatives have been previously discussed by Belletti (1990, 1994) and Laka (1990). In Spanish, the negative and the affirmative show the same distribution. The negative *no* ‘not’ and the affirmative *sí* ‘indeed’ both occur in preverbal positions. This is shown by the Spanish sentences in examples (2) and (3), respectively.¹

¹ All Spanish example sentences in this paper, unless otherwise noted, were developed by the
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- (2) María **no** habla francés.
M. neg speak French
'Maria does not speak French.'
- (3) María **sí** habla francés.
M. aff speak French
'Maria does indeed speak French.'

Conversely, in Italian the two elements do not show the same distribution and thus do not occur in the same position. The negative *non* 'not' is preverbal, while the affirmative *ben* 'indeed' is postverbal. This is shown by the Italian sentences in (4) and (5), respectively.

- (4) Gianni **non** parla francese. (based on Belletti 1990, 1994)²
G. neg speak French
'Gianni does not speak French.'
- (5) Gianni parla **ben** francese. (based on Belletti 1990, 1994)
G. speak aff French
'Gianni does indeed speak French.'

The negative and affirmative elements occur in complementary distribution. This is demonstrated by the Spanish sentences in (6) and the Italian sentences in (7).

- (6) a. *María **sí no** habla francés.³
M. aff neg speak French
- b. *María **no sí** habla francés.
M. neg aff speak French
'Maria indeed doesn't/ doesn't indeed speak French.'
- (7) *Gianni **non** parla **ben** francese. (based on Belletti 1990)
G. neg speak aff French
'Gianni indeed doesn't/doesn't indeed speak French.'

author with the assistance of a native speaker of Spanish.

² The sentences in this paper that are based on Belletti's examples were modified slightly so that they conform to the form and meaning of the Spanish examples and are more clearly presented.

³ According to my informant (6a) is somewhat acceptable with a pause between the affirmative and the negative, but is nonetheless ungrammatical on the intended reading. The matter is left aside here.

3 Previous analyses

3.1 The three issues

There are three issues surrounding the current discussion of affirmatives. The first issue is the matter of complementary distribution of affirmatives and negatives. The second issue is accounting for cross-linguistic variation using the functional projection(s) available to negatives and affirmatives. The third issue is that of the parametric variation existing within the functional projection(s) available. These issues have previously been treated through a single category approach (Laka 1990), and a two category approach (Belletti 1990, 1994).

3.2 Single category approach

One way to account for the Spanish data seen in (2) and (3) above, along the lines of Laka (1990), is to place both elements in the head position of the same functional projection. The primary reason for such an analysis is the complementary distribution of negatives and affirmatives, shown in (6) and (7) above. In Laka's analysis both negatives and affirmatives occur in the head position of NegP. She therefore proposes Σ P, instead of NegP, as the name for this functional projection. Laka assumes the Head Movement Constraint (Travis 1984). The negative and affirmative elements are taken to be clitics. They left-adjoin to the verb when it moves into Σ , then raise with it up to T.⁴ In Laka's account, the position of the phrase itself, relative to other functional categories, is subject to parametric variation. For Spanish, Σ P is located below TP and above AgrP.⁵ This is demonstrated by the derivation of the Spanish sentence in (8).⁶

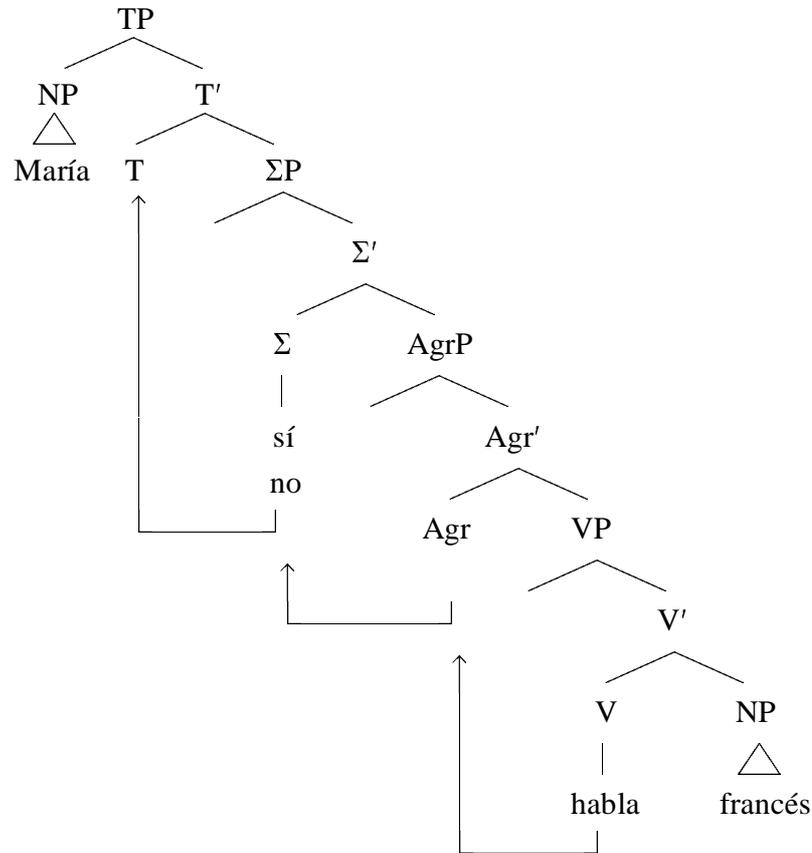
- (8) a. María **sí/no** habla francés.
 M. aff/neg speak French
 'Maria does/doesn't speak French.'

⁴ Brito (1999) reaches the same conclusion for Portuguese.

⁵ Laka proposes that Σ P is above TP in Basque. The interested reader is referred to Laka 1990 for details.

⁶ Throughout this paper I assume the Split-INFL Hypothesis (Pollock 1989).

(8) b.



The problem with this type of single category approach, allowing both the negative and affirmative elements to occupy the head position of ΣP , is that it cannot account for the Italian data. Regardless of where ΣP is located, either above or below TP, this model predicts that the Italian negative and affirmative pattern together. Both elements would be either preverbal or postverbal. As seen in (4) and (5) above, however, this is not the case. In order for the Italian affirmative *ben* to be postverbal and negative *non* to be preverbal in a system such as this, ΣP would have to occur below AgrP when an affirmative is present and above AgrP when a negative is present.⁷ This is clearly unsatisfactory and highly stipulative.

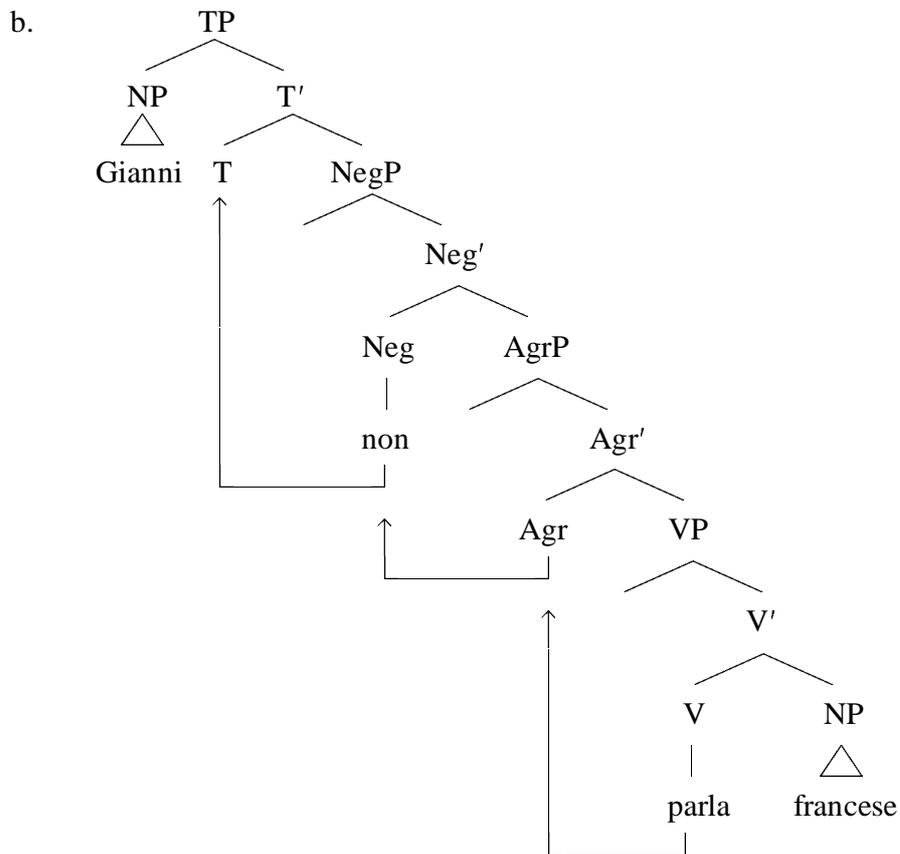
3.3 Two category approach

Belletti (1990, 1994) notes that the French negative *pas*, English *not* and the Italian affirmative *ben* have the same distribution. She therefore posits the

⁷ Most likely, ΣP would need to be placed below V when an affirmative is present for this to work.

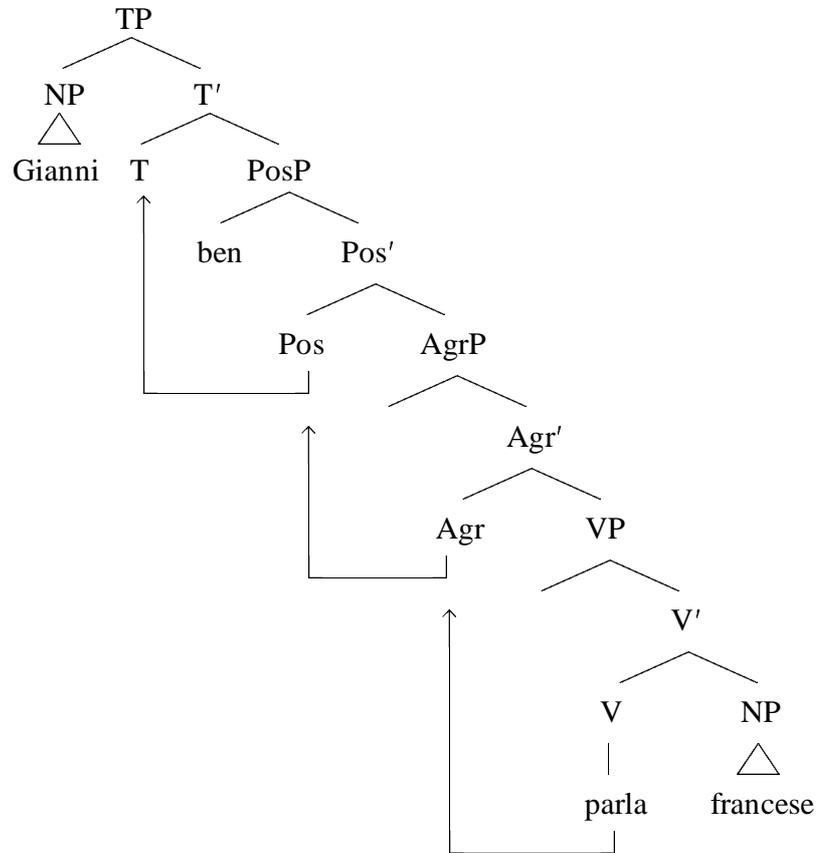
existence of two phrasal categories, Neg(ative)P and Pos(itive)P. These phrases are stipulated to be in complementary distribution. In Belletti's system, French *pas* and English *not* occur as specifier of NegP, with the French negative *ne* in head position. The Italian negative *non* is the head of NegP, while the Italian affirmative *ben* is the specifier of PosP. The negative *non* left adjoins to the verb when it passes through Neg and raises with it to T. Derivations illustrating this, yielding the Italian sentences from (4) and (5) above, are shown in (9) and (10).

- (9) a. Gianni **non** parla francese.
 G. neg speak French
 'Gianni does not speak French.'



- (10) a. Gianni parla **ben** francese
 G. speak aff French
 'Gianni does indeed speak French.'

(10) b.



While this two category approach does account for the data, it requires the stipulation that NegP and PosP be in complementary distribution. Also, the two categories can be collapsed into one, as will be shown below. Furthermore, this analysis does not capture the generalization that the negative and affirmative perform the same function, providing opposite polarity values for the sentences.

4 Modified single category approach

4.1 Complementary distribution and functional projections

It is argued here that negation and affirmation do indeed occur in the same projection, Pol(arity)P. Calling the projection PolP captures the notion that both negatives and affirmatives occur there, reflecting that the crucial distinction is a

matter of positive polarity versus negative polarity.⁸ My proposal differs from the single category approach discussed above in that elements are allowed to occupy either the head or specifier position of the projection. The position occupied within that projection is subject to a parameter setting provided to languages by Universal Grammar. The negative and the affirmative in the Spanish sentences in (2) and (3) above both occur in the head position of PolP. The Italian negative in (4) above occurs in the head position of PolP, while the Italian affirmative shown in (5) above occurs in the specifier position of PolP.⁹ In this way, the cross-linguistic word order differences are accounted for while the similarities between negation and affirmation are captured. There is no need to stipulate which projection occurs with which element in order to account for the complementary distribution of negative and affirmative elements.

4.2 Accounting for cross-linguistic variation with a single phrase

In this modified single category approach, PolP is located below TP and above AgrP in both Spanish and Italian.¹⁰ How PolP can be used to account for the Spanish sentences in (2) and (3) above is demonstrated by the derivation in (11), which shows both the affirmative and negative elements.

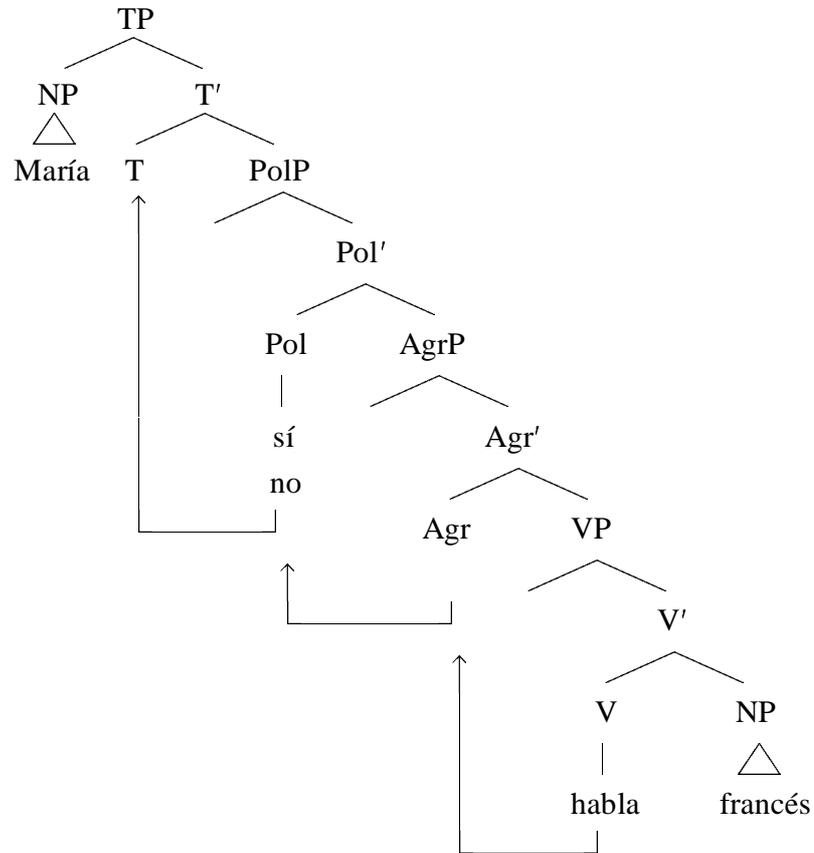
- (11) a. **María *sí/no* habla francés.**
 M. aff/neg speak French
 ‘Maria does/doesn’t speak French.’

⁸ Σ P would be an acceptable name for this phrase as well. The terminology itself is inconsequential.

⁹ Pollock (1989) took advantage of both of these positions, as well, to account for the distribution of the French negatives *ne* and *pas*.

¹⁰ I do not discount the possibility that PolP may be located in other positions, such as above TP as in Laka’s (1990) analysis, to account for other languages. This is beyond the scope of the present discussion.

(11) b.

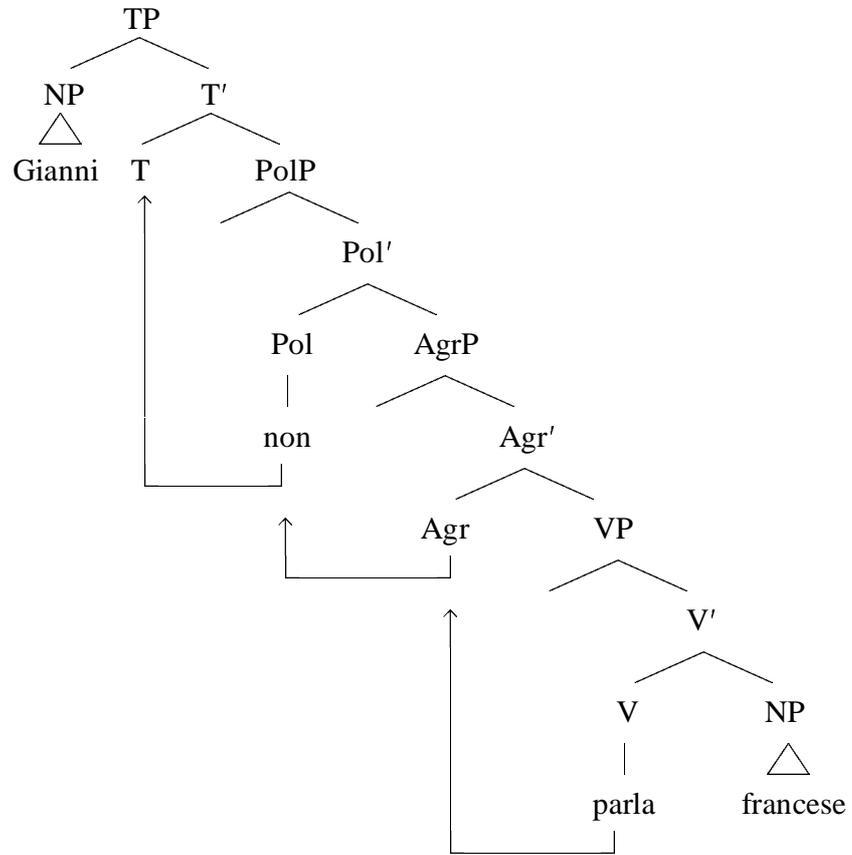


The availability of both head and specifier positions for the negative and affirmative elements combined with the Head Movement Constraint sufficiently accounts for the cross-linguistic variation between Spanish and Italian. When the verb passes through Pol, the element occupying that position left-adjoins to it and raises with it to T. This is demonstrated by the derivation of the Spanish sentence in (11) as well as the derivations of the Italian sentences from (4) and (5) above, shown in (12) and (13).

(12) a. Gianni **non** parla francese.
 G. neg speak French
 'Gianni does not speak French.'

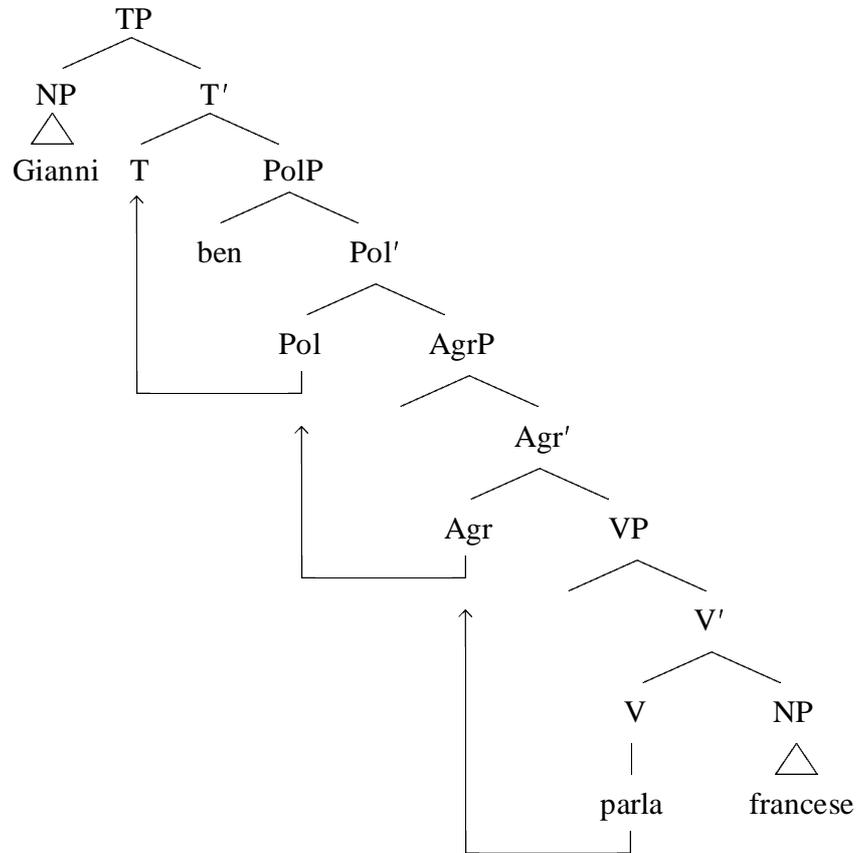
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(12) b.



(13) a. Gianni parla **ben** francese.
 G. speak aff French
 'Gianni does indeed speak French.'

(13) b.



The derivations in (12) and (13) show that the PolP proposal is sufficient to account for the different distributions seen for the Italian negative and affirmative elements. Placing the negative *non* in head position and the affirmative *ben* in specifier position makes the correct prediction. The verb must pass through Pol on its way to T per the Head Movement Constraint. When the verb passes through Pol, *non* left-adjoins to it and moves with it up to T. On the other hand, since *ben* is in the specifier position of PolP, it does not adjoin to the verb when the verb passes through Pol. The result of this is the postverbal location of the affirmative.¹¹

It could not be argued that the Spanish affirmative occurs in the specifier of PolP, mirroring Italian, with the verb always remaining in Agr. Placement of adverbs indicates that verb raising to T is optional in Spanish. This is shown by the IP adverb in the Spanish sentence in (14), without a negative or affirmative.

¹¹ Note that this requires that the verb move up to T. If the verb were able to remain in Agr, the affirmative would be preverbal.

- (14) María leyó **probablemente** ese libro. (Zagona 2002:160)
M. read probably that book
'Maria probably read that book.'

I assume, following Cinque (1999), that this adverb is in the Mod(al)_{epistemic} projection located above T. The surface word orders are, according to Cinque, derived by subject DP and V movement around the adverb.¹² This means that in (14) the verb has moved above T and, per the Head Movement Constraint, must have been previously in T. The Spanish sentences containing VP adverbs in (15), also without negatives or affirmatives, provide additional evidence of optional verb raising.

- (15) a. María **fácilmente** leyó ese libro.
M. easily read that book
b. María leyó **fácilmente** ese libro.
M. read easily that book
'Maria easily read that book.'

The sentences in (15) demonstrate that the verb may remain below a manner adverb, as in (15a), or raise above it, as in (15b). Compare this to the sentences in (16), which contain the same VP (manner) adverb combined with negatives and affirmatives.

- (16) a. *María **fácilmente** sí/no leyó ese libro.
M. easily aff/neg read that book
b. *María sí/no **fácilmente** leyó ese libro.
M. aff/neg easily read that book
c. María sí/no leyó **fácilmente** ese libro.
M. aff/neg read easily that book
'Maria did/didn't easily read that book.'

Sentences (16a) and (16b) are ungrammatical, but (16c) is grammatical. It is shown in (16a) and (16b) that when the negative or affirmative is present, the verb cannot remain below the adverb, regardless of where the negative or affirmative appears. It is therefore concluded that PolP is above the adverb and the

¹² The DP and V move higher up into the CP structure.

affirmative/negative cannot be separated from the verb by an adverb. It follows from this that the Spanish negative and affirmative are clitics that must adjoin to the verb. In (16c) the verb has raised at least to Pol to satisfy the requirement that the clitic adjoin to it.

Contrast this with the Italian data. The Italian affirmative is in the specifier of PolP, resulting in its postverbal position. It does not need to adjoin to the verb. This indicates that in Spanish and Italian the elements in the head of PolP are clitics, but the Italian affirmative in the specifier position is not.

Using a single functional projection in this way eliminates unnecessary structure in the grammar. Furthermore, using a single projection rather than two does not require the stipulation that two projections are in complementary distribution. The single functional projection account also captures the generalization that the negative and affirmative elements perform the same function, but with opposite polarity values.

4.3 Parametric variation

The location of negative and affirmative elements within PolP (in either specifier or head position) is a parameter setting available to languages. A language may place both negatives and affirmatives in the head position of PolP, as Spanish has been shown to do above. Another possibility is the Italian type of pattern, with negatives in the head position of PolP and affirmative elements in the specifier position.¹³ A potentially fruitful future direction for research would be to determine if such parametric variation can be extended to other functional projections as well.

5 Conclusion

In this paper it has been shown that there is justification for using a single functional projection, PolP, to account for the distribution of negatives and affirmatives in Spanish and Italian. This single projection is sufficient to account for the cross-linguistic variation seen between the distribution of negative and affirmative elements in Spanish and Italian. The choice of whether to put negative and affirmative elements in the head or specifier position of this projection is a

¹³ There are two other logical possibilities. The first is a language type that places both elements in specifier position. The second is a language type that places negatives in specifier position and affirmatives in head position. These language types are outside the scope of the current discussion. Yet another possibility is the French type, which has two negative elements, possibly one each in specifier position and head position. The French type is also outside the scope of this discussion, but the interested reader is referred to Pollock 1989 and Iatridou 1990. The reader seeking discussion of these other issues surrounding negation in general is referred to Zanuttini 1997.

parameter setting that languages may set either way for either element. A single category approach such as Laka's (1990) makes incorrect predictions regarding the distribution of negatives and affirmatives. A two category approach as in Belletti's (1990) posits additional unnecessary structure and requires the stipulation of complementary distribution. The modified single functional category account proposed in this paper eliminates unnecessary structure and stipulations on the grammar, while capturing the similarities between negatives and affirmatives.

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