

Sentential Negation

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Abstract

This paper is an attempt to analyze the syntax of sentential negation. In particular, it investigates the syntactic nature, representation and derivation of negation. The discussions are based on data from Amazigh, specifically in the Tashelhit variety spoken in the southwest of Morocco. Data from English is also discussed to have a comprehensive account of the issue. The theoretical framework adopted is that of Government and Binding. In the suggested analysis, I show that negation is projected independently of the verb. With respect to representation, I substantiate the claim that negation heads its own independent projection negation phrase above tense phrase. As for derivation, I demonstrate that the Empty Category Principle and the Head Movement Constraint provide the tools needed to account for the derivation of the functional category negation.

Keywords: GB theory, functional head Neg, Tashelhit, English, and Empty Category Principle.

1. Introduction

The main concern of this paper is the syntactic nature, representation and derivation of sentential negation within the Government and Binding (GB) framework. In particular, it investigates the properties of sentential negation in Amazigh, specifically in the Tashelhit variety spoken in the southwest of Morocco. I will show that negation (Neg) corresponds to a syntactic projection on a par with tense (T) and agreement (Agr). I will also demonstrate that the Empty Category Principle (ECP) and the head movement constraint (HMC) provide the tools needed to understand the core cases of the syntax of the functional head Neg in the language under study.

The paper is constructed as follows. In the first section, focus is put on the syntactic status and position of the negation element ‘ur’ in the inflection node in Amazigh. Section 2 is concerned primarily with the distributional properties of Neg. I have chosen two diverse languages for analysis in order to have a comprehensive account of the issue. I will first consider the syntactic aspect of the negation element ‘not’ in English. I will then discuss the syntax of negation in Amazigh, thereby providing more arguments in favour of the head status of Neg.

2. On the Syntactic Status and Position of Negation

Agr, T, and Neg are standardly assumed to occupy the inflection (I) node (Chomsky, 1989; Laka, 1990; Ouhalla, 1990; Pollock, 1997, among others). Putting aside Agr and T, let us focus on Neg.

One argument that Neg is base-generated under the inflectional node I receives support from its order in sentences like (1):

1. ur - rad - i - zr gma- s.
Neg - will - he- see brother-his.
‘He will not see his brother’.

Sentences like (1) contain, in addition to the verb, the future marker ‘rad’ which is an I-element. In linear order, then, ‘ur’ must occupy the same position as ‘rad’, namely I.

The argument receives further support from the fact that like ‘rad’, ‘ur’ hosts a clitic (Ouhalla, 1988):

2. (a) ur- t- i- zri.
Neg- him- he- saw
‘He did not see him.

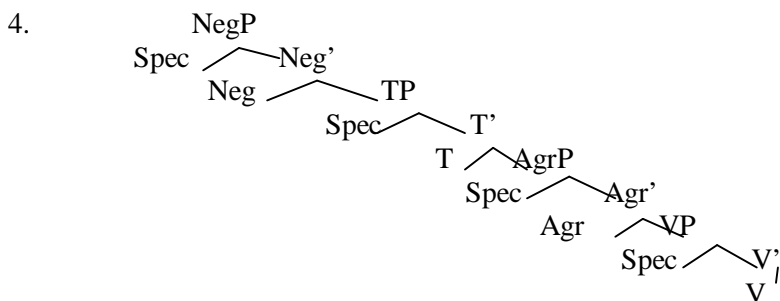
- (b) * ur- i - zri - t.
Neg he- saw- him.

Ouhalla (1988) argues that clitics in Amazigh can only attach to head elements and that their placement is regulated by the Clitic Placement Condition (CPC), which requires that clitics attach to the highest affixal element in a clause. What this condition entails is that if the Neg position is filled with 'ur', as in (2a), then the clitic must attach to it, not to any other lower head element in the clause. (2b) is ungrammatical because the clitic is attached to the verb while the Neg position is filled. Therefore, when 'ur' is present in a clause the clitic cannot attach to the verb implying that 'ur' is in a position that is higher in the structure than the position occupied by the verb (Ouhalla, 1988).

Underlying this condition is the assumption that the hierarchical position of an element is determined by its linear order in relation to other elements in a clause. If I assume that the I-elements are ordered hierarchically in relation to each other and to the verb (Ouhalla, 1988), then I can easily account for the ill-formedness of the following sentences:

3. (a) * rad- i - ur - zr gma- s.
will -he- Neg- see brother-his
(b) * ur- i - rad - zr gma- s.
Neg - he- will- see brother-his

Concerning the syntactic representation of Neg, I assume that Neg heads a separate maximal projection NegP (Ouhalla, 1991; Omari, 2001; Ouali, 2011). The proposed structure is illustrated in (4):



As such, inflection in Amazigh is not considered as one constituent with sets of features. Instead, each of these sets of features (i.e. Neg, T, Agr) is the syntactic head of a maximal projection AgrP, TP, and NegP (Ouhalla, 1988). Given the structure (4), CPC is satisfied in that the clitic has to attach to Neg because it is in a higher position than T and Agr. It should be pointed out that there is a parametric variation regarding the placement of Neg. Neg can be generated IP internally or IP externally in different languages (Laka, 1990). In other words, the functional heads may vary in their selectional properties across languages. Whereas in languages like English and French Neg is generated below IP (Pollock, 1989; Chomsky, 1989), there are languages like Amazigh and Arabic where Neg is generated above IP (Fassi Fehri, 1993; Omari, 2012).

In relation to structure (4), Neg, T, and Agr do not L-mark the maximal projections they govern because they are non-lexical categories. As is assumed in Chomsky (1986), functional heads can L-mark their complements only if a lexical element moves up to them. This assumption squares well with the movement of the verb. Given structure (4), the HMC/ ECP would prevent the verb from moving across Agr and T to Neg or across Agr to T, since the movement would involve the crossing of a non L-marked maximal projection; whereas a stepwise movement of the verb observes the HMC/ ECP since each step voids the barrierhood of the crossed maximal projection.

3. Distributional Properties of Negation

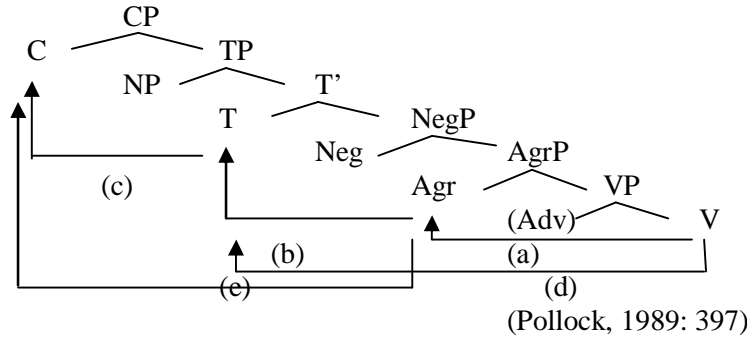
Work on structural properties of Neg (Pollock, 1989; Haegeman, 1995; Bemamamoun, 1997; Zanuttini, 1997; Shlonsky, 1997, among others) claims that Neg is a functional head with its own maximal projection. In this section, I discuss the distributional properties of the functional head Neg. I have chosen two diverse languages for analysis in order to have a comprehensive account of the issue. I will first consider the syntactic aspect of the negation element 'not' in English (Pollock, 1988). I will then discuss the syntax of negation in Amazigh, thereby providing more arguments in favour of the head status of Neg.

3.1 Negation in English

Let us consider some ideas on verbal inflection in English. I will sketch the position advanced by Pollock (1989) concerning the behavior of finite verbs and ‘not’ in indicative sentences in English. Pollock claims that the structure of a negative sentence in English, such as (5a), is as shown in the diagram (5b):

5. (a) Is John happy?

(b)



This structure embodies the idea that ‘not’ is the head of NegP. Naturally, the HMC requires verb movement to Agr, Agr to T, T to C (the (a), (b), (c) arrows of (5b), but prohibits direct movement of the verb to T or Agr to C (the (d) and (e) arrows), or of course direct movement of verb to C.

Consider the following examples:

- 6. (a) John left.
- (b)* John not left.
- (c) John has not left.

Given Pollock’s assumption that affix lowering is the basic option employed in English in sentences like (6a), an explanation is needed for the fact that this process cannot take place when ‘not’ is present as in (6b). The treatment proposed by Pollock to account for (6b) rests on the assumption that ‘not’ heads a projection of its own. To be able to describe how Pollock uses this assumption, I will need to talk about the proposals made by Pollock given in (7):

- 7. (a) Finite tense is an operator which must bind a variable.
- (b) The trace of a raised verb constitutes a variable of the appropriate kind.

As Pollock notes, the assumptions in (7) present a problem for the analysis of affirmative declarative sentences like the one in (6a). By the weakness of Agr in English, ‘leave’ cannot raise and adjoin to Agr. Thus, there will be no variable for the past tense in (6a), and the sentence will be incorrectly ruled out. To solve this problem, Pollock proposes that English has an empty verb which can be designated by the symbol “Ø”. This verb originates in D-structure within Agr and moves with Agr up to T, thus creating an empty category in Agr that counts as a variable for the past tense. Consequently, the quantification requirement in (7) is satisfied since [+Past] binds e_i, the variable that copies the theta grid of ‘leave’.

Similarly, (6a) satisfies the ECP since AgrP, being a defective category, is not an inherent barrier and need not be L-marked, which it cannot be in (6a), since { Ø } is non-lexical. Affix lowering would apply to (6a), removing Agr and T from the empty verb Ø, and attaching them to the right of the verb ‘leave’.

Before proceeding to the account of (6b), I will need to refer to Pollock’s assumptions that not only VP but also NegP and TP are inherent barriers. On the contrary, because of its morphologically ‘defective’ nature, AgrP can only be a barrier by inheritance. Pollock also assumes that heads which are intrinsically inert for government, such as Neg, do not count as potential head-governors for the Minimality Principle. This will ensure that ‘not’ does not block movement from Agr to T, at least, in non-imperative sentences.

It is in (6b) that the analysis of ‘not’ as the head of an independent maximal projection becomes important. The ECP correctly excludes (6b) which has the following structure:

- 8. [TP John_{Ti} [Agr_i [V_i Ø] Agr] T] [Neg not [Agr e_i [VP leave]]].

Since NegP is a maximal projection and, unlike AgrP, an inherent barrier, it must be L-marked to become transparent to antecedent government. Because Ø is nonlexical it fails to void the intrinsic barrierhood of NegP.

Consequently, the trace of Agr is not antecedent-governed, with the result that the derivation violates the ECP. This structure contrasts with the legitimate S-structure representation derived for (6c):

9. [TP John_{Ti} [_{vi} have] Agr] T] [_{NegP} not e_i [_{VP} e_i...]]].

VP being an inherent barrier, ‘have’ in (6c) moves to Agr, forming the amalgamated V + Agr that L-marks VP, thus voiding its barrierhood. V+ Agr moves to T next, forming the amalgamated constituent T_i. T_i L-marks NegP, thus avoiding the barrierhood of NegP, but does not L-mark AgrP. ‘Not’ is not an L-marker either. This causes no harm since AgrP, being defective, does not count as a blocking category and is only a barrier by inheritance. Therefore, the sentence in (6c) obeys the ECP.

So far, I have sketched the position advanced by Pollock concerning the behaviour of finite verbs in English. His main goal is to show that ‘not’ heads a projection of its own and consequently creates a barrier that results in an ECP violation. In what follows, I will provide more arguments in favour of the head status of Neg from Amazigh.

3.2. Negation in Amazigh

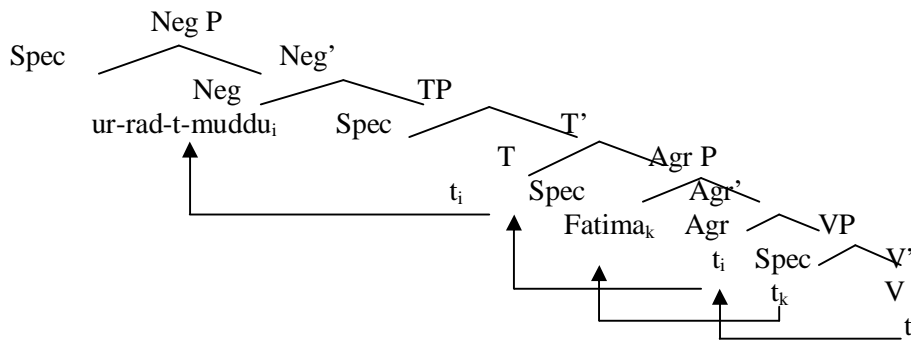
Consider the following sentences:

10. (a) ur - rad - t - muddu Fatima.
 Neg- will - she- travel Fatima
 ‘Fatima will not travel.’

(b)* ur - t - muddu - rad Fatima.
 Neg- she -travel- will Fatima

Basically, affix-movement motivates the movement of the verb and the HMC determines how this movement should apply. Given that the I-node is split open in the sense that each of the elements it contains (T, Agr, and Neg) heads its own maximal projection, verb movement applies in a straightforward manner in sentences like (10a). The structure in (11) represents the derivation of (10a):

11.

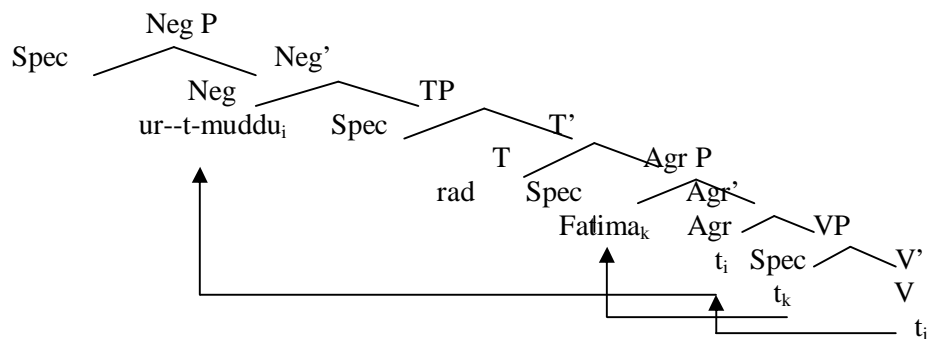


At this point, three remarks are worth noting. First, L-marking of the lexical projection in the structure (11) follows from the movement of the verb ‘muddu’. As pointed out earlier, only lexical categories are L-markers. However, it is always possible for functional heads to L- mark the maximal projections they govern; this is possible only when a lexical category, presumably the verb ‘muddu’, attaches to them.

Second, the rule of head to head movement of the verb is a local rule in the sense that it imposes a locality condition on verb movement. The verb cannot move up crossing a non L-marked XP. By way of illustration, VP being an inherent barrier, the verb in (10a) moves to Agr, thus forming the amalgamated V+ Agr that L- marks VP. V+ Agr next moves to T, forming the amalgamated constituent T_i which L-marks Agr P. From there, the amalgamated constituent V + Agr + T moves to Neg, L-marking TP. Therefore, the sentence in (10a) is syntactically well-formed.

Note that direct movement of the verb to Neg across Agr and T is disallowed. In this respect, the HMC is violated. Clearly, (10 b) is excluded because for the amalgamated V+ Agr to end up in Neg position, it will have to move across TP which it cannot do since it crosses a non-L-marked maximal projection. Consequently, the trace in Agr is not antecedent-governed, with the result that the derivation violates the ECP. Thus, the ungrammaticality of (10 b) is accounted for in a straightforward manner.

12.



Third, verb movement leaves traces which are coindexed with their antecedent. Traces are subject to the ECP. It is easy to check that the ECP correctly accounts of the sentence (10a), represented in structure (11). The traces in V, Agr, and T are all coindexed and c-commanded by their antecedent (i.e. the verb) in the landing site NegP. They are locally bound traces. The only barrier to antecedent government is a non L-marked maximal projection. But as I have already argued, the maximal projection VP, AgrP, and TP in the structure (11) are L-marked subsequent to verb movement. Thus, the verbal chain is well formed, satisfying the ECP.

4. Conclusion

The main goal of this paper is to show that 'not' is the head of NegP. I first showed that I-categories are ordered hierarchically in relation to each other and to the verb in Amazigh. I also presented an analysis of the syntax of Neg in Amazigh. In terms of X-bar theory, the structure required is one where Neg is a head. Given this structure, the HMC/ ECP would prevent the verb from crossing a non L- marked maximal projection. In the course of the discussion, I considered the syntax of Negation in English so as to have a comprehensive account of the head status of Neg. The major conclusion to be drawn from the analysis of sentential negation in Amazigh is that this grammatical phenomenon is adequately accounted for by GB theory. This lends further plausibility to the fact that the principles of the theory (ECP and HMC) have cross- linguistic validity (i.e. they are valid not only for English, but for other languages as well).

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