

A LINEAR APPROACH TO NEGATIVE PROMINENCE

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Languages often require negation to be realized in a prominent position. This was noted by Jespersen, who observed that there is a ‘natural tendency, ... for the sake of clearness, to place the negative first, or at any rate as soon as possible’ (1917: 5).¹ The tendency is seen in Italian, where, as the following show, a pre-verbal n-word appears without any other marking of negation but a post-verbal n-word requires the negative particle *non* before the verb.

- (1) a. Nessuno telefona a Gianni.
no one telephones to Gianni
‘No one calls Gianni.’
b. Gianni *(non) telefona a nessuno.
Gianni NEG telephones to no one
‘Gianni does not call anyone.’

Such data suggest that Italian requires some pre-verbal marking of negation. Other languages have rather similar requirements. It is common within generative syntax to propose that phenomena that appear to involve linear order really involve something else. However, as Culicover and Jackendoff (2005) point out, there is a reason for favouring approaches involving linear order. They remark that:

‘Given the epistemological priority of linear order – it is immediately available to the learner in a way that structure is not – it seems to us that the natural approach would be to see how much explanatory mileage one could get out of linear order.’ (2005: 52)

In this paper, I will argue that this phenomenon should indeed be analyzed in terms of linear order and will show how this can be done within the linearized-based version of Head-driven Phrase Structure Grammar (HPSG) developed by Kathol (2000).

A simple linear approach to the Italian data is proposed in De Swart (to appear). Working within Optimality Theory, De Swart proposes that the facts are the result of what she calls the Negfirst principle, which simply requires negation to be pre-verbal. This approach is quite plausible for Italian. However, it cannot accommodate certain other languages, which require negation to be in a prominent position but do not require it to be pre-verbal.

¹ Not all languages require a negative element early in the sentence. In particular it is common for **SOV** languages to mark negation on the verb, which, of course, is in final position. The following Turkish example illustrates:

- (i) (ben) bugün her şey-i yap-ma-yacağ-ım.
I today every thing-ACC do-NEG-FUT-1SG
‘I shall not do everything today.’

One language that is relevant here is Swedish, discussed by Sells (2000), where, while (2a-c) are fine, (2d) is ungrammatical.

- (2) a. Jag har inte gett boken till henne.
I have not given the book to her
'I have not given the book to her.'
- b. Ingen såg mig.
no one saw me
'No one saw me.'
- c. Jag såg ingen.
I saw no one
'I saw no one.'
- d. *Jag har sett ingen.
I have seen noone
'I haven't seen anybody.'

Here it is clearly not a pre-verbal negative element that is required. Working within Lexical Functional Grammar (LFG), Sells proposes that Swedish sentences may contain a VP but that the verb is outside VP in a main clause. He also proposes that negative objects and pronominal objects are outside VP when the associated verb is outside VP. Given these assumptions, the examples in (2) have the following structures:

- (3) a. [_{IP} Jag har inte [_{VP} gett boken till henne]]
b. [_{IP} Ingen såg mig]
c. [_{IP} Jag såg ingen]
d. [_{IP} Jag har [_{VP} sett ingen]]

Sells proposes that the facts are the consequence of a constraint requiring a negative element which is not inside VP. He also suggests that the same constraint is operative in Italian.

An approach like Sells's requires an analogue of verb-movement, allowing a verb to appear outside the associated VP. This is something that has not generally been assumed within HPSG. Hence, it is natural to look for an alternative approach. A relevant fact is that quite similar data are found in another language, where a VP-based account is not plausible. This is Welsh, which has data like the following:

- (4) a. Dw i ddim wedi rhoi'r llyfr iddi hi.
am I NEG PERF give the book to.3SGF she
'I have not given the book to her.'
- b. Welodd neb fi.
saw.3SG no one I
'No one saw me.'
- c. Welish i neb.
saw.1SG I no one
'I saw no one.'
- d. *Dw i wedi gweld neb.
am I PERF see nobody
'I haven't seen anybody.'

Welsh is a VSO language and has a perfect construction which is rather different from that of Swedish. Otherwise, however, these examples are quite like those in (2). Almost all transformational work has assumed that Welsh VSO sentences contain a VP, from which the verb is extracted by verb movement. However, Borsley (2006) shows that the arguments for such an analysis are quite weak. Moreover, even if a VP is assumed, there is no reason to think that an object is ever outside VP.

In Swedish a pronominal object precedes the negative particle *inte*, as in (5), and a negative object precedes a non-finite verb, as in (6).

- (5) Jag kysste henne inte.
I kissed her not
'I didn't kiss her.'
- (6) Hon hade inga biljetter köpt.
he had no tickets bought
'He hadn't bought any tickets.'

This makes the idea that these objects are outside a VP constituent quite plausible. In Welsh, the object of a finite verb cannot co-occur with the negative particle *ddim*. A simple transitive sentence is negated by what Borsley and Jones (2005: chapter 5.3.2) call a pseudo-quantifier, giving (7) instead of (8).

- (7) Welish i mo 'r bachgen.
saw.1SG I NEG the boy
'I didn't see the boy.'
- (8) *Welish i ddim y bachgen.
saw.1SG I NEG the boy
'I didn't see the boy.'

It follows that we cannot ask whether the object of a finite verb precedes or follows *ddim*.—However, the object of a finite verb may co-occur with the negative adverbs *byth* and *erioed*, which mean 'never' and appear to occupy the same position as *ddim* when they are the sole marker of negation. In this situation, the object comes second. This includes a pronominal object, as the following show.

- (9) a. Wela' i byth fo eto.
will-see.1SG I never he again
'I will never see him again.'
- b. *Wela' i fo byth eto.
will-see.1SG I he never again
- (10) a. Welish i erioed fo eto.
saw.1SG I never he again
'I never saw the men again.'
- b. *Welish i fo erioed eto.
saw.1SG I he never again

Similarly, in Welsh sentences with an auxiliary and a non-finite verb, the object follows the verb. This includes a negative object. Instead of (4d), Welsh has (11a), with post-subject *ddim*, and not (11b), with the object before the verb.

- (11) a. Wnaeth Emrys ddim gweld neb.
 did.3SG Emrys NEG see no one
 ‘Emrys didn’t see anyone.’
 b. *Wnaeth Emrys neb weld.
 did.3SG Emrys no one see

Thus, while it is quite plausible to suppose that certain objects appear outside VP in Swedish, there seems to be no evidence that any objects are outside VP in Welsh. Some Welsh speakers also accept negative sentences with a negative prepositional object, as in (12).

- (12) %Soniodd Sioned am neb.
 mentioned Sioned about no one
 ‘Sioned talked about no one.’

There is no evidence that PP complements are outside VP. It seems, then, that there is no possibility of a VP-based account of Welsh negation.

Borsley & Jones (2005: chapters 3 and 9) develop what might be called a selectional approach to the Welsh data. They propose that Welsh has a class of weak negative verbs, which normally look like affirmative verbs but sometimes have a distinctive form, and that such verbs are subject to what they call the Negative Dependent Constraint, which requires them to have a negative complement. They assume that both post-verbal subjects and post-subject adverbs are complements. This approach accounts for the Welsh data. However, it is obviously not possible to apply such an approach to the Italian data, and nor can it be applied to Swedish. Swedish has a double-object construction, and as the following show, a negative second object only gives a well-formed negative sentence if the first object is pronominal.

- (13) a. Jag lånade dig inga pengar.
 I lent you no money
 ‘I didn’t lend you any money.’
 b. *Jag lånade Sven inga pengar.
 I lent Sven no money
 ‘I didn’t lend Sven any money.’

For Sells, this is because a non-pronominal non-negative object is always inside VP. Evidence for this comes from the fact that whereas a pronominal object precedes [?] *inte*, as in (5), a non-pronominal object follows, as in (14).

- (14) Jag såg inte Sven.
 I saw not Sven
 ‘I did not see Sven.’

Obviously, examples like (13b) show that not all negative complements give a well-formed negative sentence in Swedish.

It seems, then, that none of the three approaches considered above can accommodate the negative realization facts in all three languages. I will show that a more sophisticated linear approach can be developed within the linearization-based version of HPSG developed in Kathol (2000), which provides a unified account of the data.

For linearization-based HPSG, constituents have an order domain, to which ordering constraints apply. The domain elements of a constituent may be ‘compacted’ to form a single element in the order domain of the mother or they may just become elements in the mother’s order domain, in which case the mother has more domain elements than daughters. Most importantly in the present context, order domains and especially clausal order domains are divided into topological fields. Kathol (2000: chapter 9) discusses Swedish and proposes the following system of topological fields:

<i>first</i>	Initial constituents
<i>second</i>	Finite verbs in main clauses
<i>third</i>	Constituents which follow the finite verb in a main clause but precede non-finite verbs and finite verbs in subordinate clauses
<i>fourth</i>	Non-finite verbs and finite verbs in subordinate clauses
<i>fifth</i>	Constituents which follow the finite verb in a subordinate clause

Table 1: Swedish topological fields

Assuming these fields, (2a), (2c), (13a) and (14) have a negative element in *third* and (2b) has one in *first*, while (2d) and (13b) have a negative element in *fifth*. Hence, the facts can be accounted for by a constraint requiring a negative clause to have a negative element in the first or second field, as follows:

(15)

$$\text{negative-clause} \rightarrow \left[\text{DOM} < \dots \left[\begin{array}{l} \textit{first} \vee \textit{third} \\ \text{NEG} + \end{array} \right] \dots > \right]$$

For Welsh the following simpler system of topological fields (essentially the system proposed for the related language Breton in Borsley & Kathol 2000) can be proposed:

<i>first</i>	Pre-verbal constituents
<i>second</i>	Verbs
<i>third</i>	Subjects, post-subjects adverbs, complements
<i>fourth</i>	Adverbial constituents

Table 2: Welsh topological fields

The examples in (4), (7), (9), (10) and (12) all have a negative element in *third*.² However, Borsley & Jones (2005: chapter 3) show that Welsh also has certain strong negative verbs, which produce a well-formed negative sentence on their own. These include a special negative verb used in imperatives, illustrated in (16), and certain negative present tense forms of the copula, which occur in Southern dialects, illustrated in (17).

² In the case of (12) it is necessary to assume that some speakers but not others treat a PP with a negative object as a negative constituent.

- (16) Paid/ Peidiwch â mynd i Aberystwyth.
 NEG.SG NEG.PL with go to Aberystwyth
 ‘Don’t go to Aberystwyth’
- (17) Sa i ’n gweithio.
 NEG.is I PROG work
 ‘I’m not working.’

Thus, it is possible to have a negative element in *second*. It is not possible, however, to have a negative element in *first*, as (18) shows.

- (18) *Neb welish i.
 no one saw-1SG I
 ‘It was no one that I saw.’

It seems, then, that a Welsh negative clause requires a negative element in the second or third field, and hence that the following constraint is necessary:

- (19)
- $$\text{negative-clause} \rightarrow \left[\text{DOM} < \dots \left[\begin{array}{c} \textit{second} \vee \textit{third} \\ \text{NEG} + \end{array} \right] \dots > \right]$$

Finally, for Italian, it seems reasonable to assume the following very simple set of topological fields:

<i>first</i>	Pre-verbal constituents
<i>second</i>	Verbs
<i>third</i>	Post-verbal constituents

Table 3: Italian topological fields

Kim (2000: chapter 4.3) argues that Italian *non* is a clitic-auxiliary, hence a type of verb. If this is right, Italian requires a negative element in the second or third fields, and hence the following constraint:³

- (20)
- $$\text{negative-clause} \rightarrow \left[\text{DOM} < \dots \left[\begin{array}{c} \textit{first} \vee \textit{second} \\ \text{NEG} + \end{array} \right] \dots > \right]$$

It seems, then, that while a number of approaches cannot accommodate the negative realization facts in all three languages, there is no problem for a linear approach assuming topological fields.

³ A different but related topological fields-based approach to Italian negation is outlined in Przepiórkowski (1999).

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