

Triggers for verb-second: Germanic and Romance¹

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V-movement in German, as illustrated in (1) and (2), provides the paradigmatic example of a second position dependency:

- (1) *Marie habe ich gesehen.*
Mary have I seen
- (2) a. *Ich glaube daß du Marie gesehen hast.*
I believe that you Mary seen have
'I believe that you have seen Mary.'
- b. *Ich glaube Marie hast du gesehen.*
I believe Mary have you seen
'I believe that Mary you have seen.'

In (2a) the complementizer *daß* 'that' occupies the C position of the embedded sentence, as shown in (3a). In (1) and (2b), in the absence of a complementizer,

1. This article corresponds to part of my presentation at the 8th Workshop on Comparative Germanic Syntax in Tromsø. I am grateful to T. Taraldsen for providing stimulus for this work and to A.-M. Madeira for making her data and her research on Portuguese available to me. The article was also presented at the XIX Incontro di Grammatica Generativa in Trento. A preliminary version appears as Manzini (1993); several additions in the present version owe their existence to one of the anonymous reviewers.

The conclusions I reach here converge in part with recent work by Rouveret (1992) and Uriagereka (1992, 1993), though they also differ from it in fundamental respects. This work was circulated only after my presentation, and cannot be properly addressed here. The same goes for the revision that Kayne (1993) proposes of his own theory of proclisis. It is important to notice however that the latter leaves the present approach to enclisis untouched.

Apart from V-movement and cliticization, my original presentation discussed another second position phenomenon attested in Portuguese, in the form of meso-cliticization, namely Long Head Movement, in the sense of much work by Lema and Rivero (1990, 1991). I will leave the discussion of this phenomenon for further work, pointing only to its potential relevance in the present context.

the finite verb *has* 'has' moves to C; the Spec of CP position is filled by a topic/focus, as shown in (3b):

- (3) a. $[_{CP} C [_{IP} \dots]$
 b. $[_{CP} XP [_{C'} V [_{IP} \dots]]$

Following Den Besten (1983), a second position dependency, such as German V2, is then a dependency involving the highest functional head in the sentence, namely C.

In this article, in the intent of throwing light on second position dependencies in general, I consider patterns of enclisis and proclisis in (European) Portuguese. Following in essence Kayne (1989, 1991) and Madeira (1992, 1993), I consider Portuguese proclisis to involve movement of the clitic to V + I; I consider Portuguese enclisis to involve movement of the clitic to C, triggering V2 (section 1). I argue that the restrictions associated with Portuguese enclisis in main contexts reduce to the fact that an operator feature, which also triggers V2, and a clitic are mutually exclusive in C (section 2). I propose that cliticization, which I take to be D-movement, universally targets C; in a language like Italian, however, spell-out, in the sense of Chomsky (1992) or Brody (1992/1993), is in I. This defines the Portuguese/Italian parameter with respect to cliticization (section 3).

1. Enclisis and proclisis in Italian and in Portuguese

The fundamental distribution of enclisis and proclisis in Portuguese is exemplified in (4) and (5):

- (4) a. *O Pedro encontrou-a.*
 Peter met-her
 b. **O Pedro a encontrou.*
 Peter her met
- (5) a. **Dizem que o Pedro encontrou-a.*
 they say that Peter met-her
 b. *Dizem que o Pedro a encontrou.*
 they say that Peter her met

In embedded sentences, a clitic precedes the inflected V, as in (5b), and cannot follow it, as in (5a). In matrix sentences, however, the clitic follows the inflected V, as in (4a), and cannot precede it, as in (4b). By contrast, in Italian and similar languages, proclisis is associated with finite Vs, as in (6a) and enclisis with non-finite Vs, as in (6b):

- (6) a. *Gianni la incontrò.*
 John her met
 b. *Gianni tentò di incontrarla.*
 John tried to meet-her

For (6a), Kayne (1989, 1991) proposes that the clitic is left-adjoined to V in I, as schematized in (7):

- (7) $[_{CP} C [_{IP} Cl + V + I [_{VP} \dots]$

In the theory of Kayne (1989, 1991), adjunction to a head is always left-adjunction; indeed it is possible to argue that only left adjunction is compatible with the right-headedness of words in the sense of Williams (1981). This then eliminates an analysis of proclisis with the finite V right-adjoining to the clitic.

Notice that I take V to adjoin first to I, and then the clitic to adjoin to the V + I complex. The clitic cannot adjoin to V, whether V ends up in I or not, precisely because it targets I. Indeed in adjoining to V + I, the clitic adjoins to I, since I is the head of V + I. On the other hand, I take adjunction of the clitic directly to I to create a (V +) Cl + I complex impossible on morphological grounds, which excludes this alternative possibility as well.

Again according to Kayne (1989, 1991), (6b) results from the clitic moving to an empty I, and V moving past the clitic. The landing site of V is C according to Kayne (1989), while V is adjoined to I' according to Kayne (1991). These two possibilities are displayed in (8):

- (8) $[_{CP} I' V [_{I'} Cl [_{VP} \dots]$

As Kayne (1991) points out, this schema of explanation can be extended to enclisis in Portuguese, if movement of the clitic to an empty C is substituted for movement of the clitic to an empty I. Thus enclisis in Portuguese can be analyzed as involving movement of the clitic to C, and movement of V to a C'-adjoined position, as in (9):

- (9) $[_{C'} V [_{C'} Cl [_{IP} \dots]$

When movement of the clitic to C is impossible because C is already filled by a complementizer in embedded contexts, the clitic adjoins to V in I, whence proclisis. This analysis is in essence adopted by Benincà (1991), though according to Benincà (1991) the V moves to the Spec of CP, rather than to a C'-adjoined position.

Kayne (1991) also suggests a second possible extension of this schema of explanation to Portuguese. This involves an additional functional projection between I and C. This second possibility is explored by Cardinaletti and Roberts (1991) who propose to identify this intermediate projection with a recursion of AgrS; we can call the higher AgrS, AgrS₁, and the lower AgrS, AgrS₂. According to Cardinaletti and Roberts enclisis involves movement of the clitic to AgrS₁ and movement of V to C, as schematized in (10):

- (10) $[_{CP} V [_{AgrS1} Cl [_{AgrS2} \dots]$

Movement of V to C, and hence the enclisis pattern, is blocked by the presence of a complementizer in C in embedded contexts. Proclisis in I becomes then necessary.

In what follows, I will follow in essence the analysis of enclisis in Madeira (1992, 1993). Madeira argues that both (9) and (10) are unlikely candidates for an analysis of Portuguese enclisis; and the same criticisms can in fact be extended to the analysis of Italian enclisis in (8). Consider first (10). If V and Cl occur in two separate heads, one expects lexical material to be able to intervene between them. But it clearly cannot. This immediate problem can be circumvented by postulating movement of Cl to V in C starting from I. If so, however, the generalization in Kayne (1989, 1991) that adjunction to a head is always to the left must be abandoned, since adjunction must take place to the right. But in the absence of such a generalization it is difficult to see why enclisis and proclisis would not alternate freely. Thus the analysis in (10) appears to be seriously flawed.

Much the same considerations also exclude the analysis in (9), where V and Cl still occupy two different positions, albeit within the same phrasal projection. To the extent that (9) is exempt from the line of criticism that precedes, this is precisely because V is adjoined to C', as opposed to being in a head position. But this is in itself an important drawback of the analysis, since to my knowledge there are no independent arguments for movement of a head to a non-head position. As anticipated, of course, the kind of reasons just reviewed ultimately undermine (8) as much as (9) and (10).

Madeira (1992) maintains that in Portuguese matrix contexts of the type in (4), clitics move to C. However, while in other theories, V moves past a clitic in C, in Madeira's (1992) theory V adjoins to the clitic in C. Thus the structure of Portuguese (4) is as in (11); and similarly, the structure of Italian (6b) is as in (12):

(11) $[_{CP} V + Cl [_{IP} \dots$

(12) $[_{IP} V + Cl [_{VP} \dots$

As Madeira (1992) points out, (11) and (12) solves the problems for the theories of enclisis in (9) and (10), and ultimately (8), noted above. If V adjoins to the clitic, a configuration of incorporation is obtained, so that lexical material is predicted not to intervene between them. At the same time the generalization that adjunction is always to the left is maintained. Furthermore no appeal is made to movement of V to a position other than a head.

The argument in favor of (11) and (12) is strengthened by a second type of consideration. Quite simply, accepting that a clitic moves into an empty I or C, the problem remains what motivates the movement of V past it. Following in essence the Tobler-Mussafia Law, Cardinaletti and Roberts (1991) propose that V moves, as in (10), in order to insure that the clitic is not in first position in the sentence. There is however at least one serious drawback to this proposal. Consider again Portuguese (4). If the clitic adjoins to V in I and the subject occupies the Spec of IP, the clitic is not in sentence-initial position. Thus there is no reason for the V to move and (4b) should be possible, contrary to fact.

A reconstruction of the Tobler Mussafia Law is attempted on the other hand by Benincà (1991), according to whom V moves to the Spec of CP just in case the Spec of CP is empty. If V moves to the Spec of CP, however, the overall theory of grammar is considerably enriched, since a head is allowed, and in fact required, to move to a position otherwise occupied by maximal projections. Thus once more there is at least one serious drawback to this proposal.

If Madeira (1992) is correct, however, the reason why V moves, as in (11) and (12), is transparent. Quite simply, V-movement is driven by the necessity for V to incorporate the clitic, or, in Chomsky's (1992) general framework, effectively by feature checking. Under Madeira's (1992) analysis, then, what we may call Cl2 acts as a trigger for V2 in Portuguese.

In short, as a basis for my discussion I shall adopt the theory expounded in Madeira (1992, 1993), to the effect that enclisis is movement of the clitic to C in Portuguese (and to I in Italian), followed by movement of V. Following Kayne (1989, 1991) I shall assume that proclisis is movement of the clitic to V + I.

Notice that exactly like movement of V + I to Cl, movement of Cl to V + I can be driven by feature checking. Under the general framework of Chomsky (1992), however, movement of V + I to Cl takes place in order to check some feature of V + I against Cl; while movement of Cl to V + I is to check some feature of Cl against V + I. Possibly, the same feature is involved in both instances of movement, say Case; but as far as I can see nothing hinges on a precise implementation of my proposal in this respect.

2. Portuguese enclisis

Apart from embedded contexts, there are several matrix contexts where enclisis is blocked in Portuguese, and proclisis is the only option allowed. In particular, according to Madeira (1992, 1993), in non-embedded contexts enclisis is blocked either by a sentential negation, as in (13), or by a negative quantifier, as in (14):

- (13) a. **O Pedro nao encontrou-a.*

Peter not met-her

- b. *O Pedro nao a encontrou.*

Peter not her met

- (14) a. **Ninguem ajudou-me.*

nobody helped-me

- b. *Ninguem me ajudou.*

nobody me helped

What is more, enclisis is blocked by a universal quantifier, though not by an existential quantifier, as in (15) and (16):

- (15) a. **Todos los rapazes ajudaram-me.*
all the boys helped-me
b. *Todos los rapazes me ajudaram.*
all the boys me helped
- (16) a. *Alguns rapazes ajudaram-me.*
some boys helped-me
b. **Alguns rapazes me ajudaram.*
some boys me helped

In questions, enclisis is found in *yes-no* contexts, as in (17), while proclisis is found in *wh*-contexts, as in (18):

- (17) a. *O Pedro encontrou-a no cinema?*
Peter met-her in-the cinema
b. **O Pedro a encontrou no cinema?*
Peter her met in-the cinema
- (18) a. **Onde encontrou-a o Pedro.*
where met-her Peter
b. *Onde a encontrou o Pedro.*
where her met Peter

Focus behaves like *wh*-movement in being compatible only with proclisis; with topicalization, on the other hand, enclisis is again possible and necessary. The relevant examples are in (19) and (20) respectively:

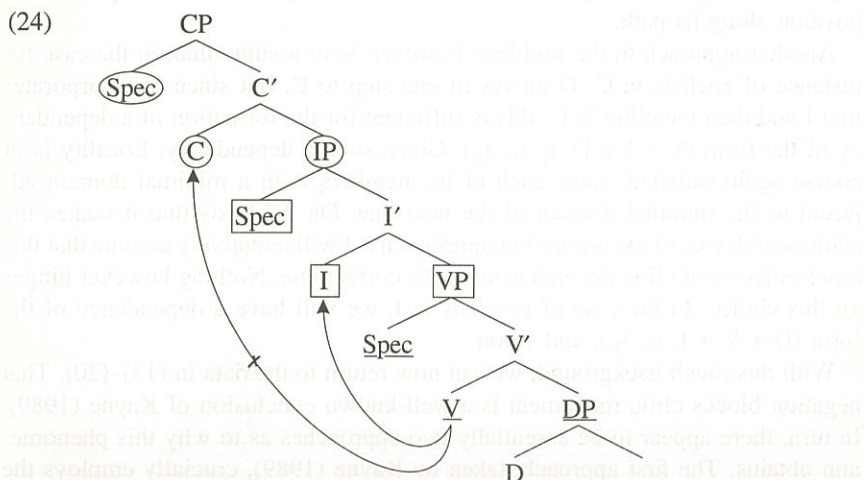
- (19) a. **ISSO disse-lhe eu.*
this told-him I
b. *ISSO lhe disse eu.*
this him told I
- (20) a. *Isso, disse-lhe eu.*
this told-him I
b. **Isso, lhe disse eu.*
this him told I

In Manzini (1992, 1994), I argue that all locality constraints on movement reduce to a version of Chomsky's (1992) Economy, to the effect that movement can only take place from any given minimal domain to an adjacent one. The notion of minimal domain of a head X, notated (X), is understood as in (21), a variant of Chomsky's (1992) notion; the notion of adjacency, or minimum distance, is defined as in (22). The Locality, or Economy, principle is then formulated as in (23):

- (21) The minimal domain of a head X, (X), consists of all and only the elements that are immediately contained by, and do not immediately contain, a projection of X.

- (22) (X) and (Y) are adjacent iff there is no (Z) such that some member of (Z) contains (X) and does not contain (Y), or *vice versa*.
- (23) Locality
Let A_i be in (X_i) . Given a dependency $(A_1, \dots, A_n)$, for all i , (X_i) and (X_{i+1}) are adjacent.

In practice, consider the basic sentential tree in (24). Under (21), the minimal domain of V consists of all and only the elements underlined, the minimal domain of I of all and only the elements boxed and the minimal domain of C of all and only the elements circled:



Under (22), (V) and (C) are not adjacent in that there is a member of a third domain, namely VP, that contains (V) and not (C); while (V) and (I) are adjacent because no member of a third domain intervenes between them.

If movement is constrained to apply to members of adjacent minimal domains, as under (23), movement from V to I is allowed in that (V) and (I) are adjacent; while movement from V to C is blocked in that (V) and (C) are not adjacent. This of course means that (21)–(23) yields the Head Movement Constraint of Travis (1984), as indicated.

I will assume that clitics are Ds; thus a clitic can correspond to D in (24). There is a clear *prima facie* argument in favor of this assumption in the Romance languages, namely that by and large the spell-outs of Ds and pronominal clitics co-incide. Treating clitics as Ds implies that pronouns in general are also Ds; this in turn appears to be an acceptable and indeed desirable conclusion.

Under the theory in (21)–(23), as under the Head Movement Constraint, clitic movement from D to C in (24) can only take place through the intermediate

heads, V and I. Indeed, (D) is adjacent to (V), but not to (I) or (C), forcing D to move no further than V. An obvious problem then arises. If the clitic moves to V, we expect D + V to move to I, and so on. Even if it was compatible with proclisis, this is certainly not compatible with enclisis.

One possible approach to this problem is to assume that exactly like phrases can adjoin to a maximal projection and then move from it to another position, so heads can incorporate and excorporate from other heads. This idea is developed notably in Roberts (1991). If correct, it means that clitic chains consist of the clitic followed by as many empty categories as are the positions it passes through. Locality is then satisfied if and only if the clitic skips no head position along its path.

Another approach to the problem, however, is to assume that, in the case for instance of enclisis in C, D moves in one step to C, but since V incorporates first I and then the clitic in C, this is sufficient for the formation of a dependency of the form (V + I + D, t_I , t_V , t_D). Given such a dependency, Locality is of course again satisfied, since each of its members is in a minimal domain adjacent to the minimal domain of the next one. On the basis that it makes the additional device of excorporation unnecessary, I will tentatively assume that this representation of clitic dependencies is the correct one. Nothing however hinges on this choice. In the case of proclisis in I, we will have a dependency of the form (D + V + I, t_V , t_D), and so on.

With this much background, we can now return to the data in (13)–(20). That negation blocks clitic movement is a well-known conclusion of Kayne (1989). In turn, there appear to be essentially two approaches as to why this phenomenon obtains. The first approach, taken by Kayne (1989), crucially employs the notions of L-marking and of barrier from Chomsky (1986). The second approach, taken by Roberts (1994), makes crucial use of Rizzi's (1990) Relativized Minimality.

According to Kayne (1989), Neg is a head which does not L-mark its sister maximal projection. This means that its sister maximal projection is a barrier, blocking head movement under the antecedent government clause of the Empty Category Principle. According to Roberts (1994), on the other hand, there are operator and non-operator heads, and clitic movement to C is movement to an operator head. If so, a suitably modified version of Relativized Minimality predicts that a clitic moving to C cannot cross any operator heads, though it can cross an arbitrary number of non-operator heads. Thus, if Neg is an operator head, the impossibility for the clitic to move to C across it is explained.

Now, the theory in (21)–(23) does not embed the notion of L-marking; nor is it sensitive to the operator or non-operator status of a head. Thus the approaches to the blocking effect of negation on clitic movement proposed in Kayne (1989, 1991) and in Roberts (1994) are both incompatible with the model in (21)–(23). The question then arises whether an alternative approach, compatible with (21)–(23) is feasible.

I shall begin with (18). Following Rizzi (1991), *wh*-questions are analyzed as cases of V2, even in languages like English or Italian that do not display V2 otherwise. If they are analogously analyzed in Portuguese, then in (18) the complex Cl + V + I is in C. Indeed the position of the subject, which is immediately post-verbal, as demonstrated by the contrast in (25), can be taken to confirm this analysis:

- (25) a. **Onde o Pedro encontrou a Maria.*
 where Peter met Mary
 b. *Onde encontrou o Pedro a Maria.*
 where met Peter Mary

Given the analysis of enclisis in Madeira (1992), the fundamental question concerning (18) is why the clitic can only adjoin to V + I, as opposed to moving to C first, and inducing subsequent movement of V + I to C. In other words, given that in the matrix context in (4), Cl₂ appears to be the trigger for V2, the question is why in (18), V2 appears to be independently triggered and indeed to render Cl₂ impossible.

An obvious answer to this question can be found along the lines of Rizzi's (1991) Wh-Criterion, which can easily be reconstructed in Chomsky's (1992) minimalist terms. Suppose *wh*-questions are characterized by the presence of a [+wh] feature. It is possible to assume that V + I must move to C to check this feature. If so, V2 is triggered simply by what we may call O(perator)₂. The presence of a [+wh] feature, on the other hand, can be construed as blocking movement of the clitic into C, in that the clitic cannot check it. Thus the clitic can only adjoin to V + I yielding the structure in (26), for the wellformed (18b):

- (26) [CP Cl + V + I + C] [IP ...]

The case of focus movement in (19) is entirely parallel to that of *wh*-movement in (18). Indeed it has been argued by Brody (1990) that focus movement has properties that entirely parallel those of *wh*-movement, and that notably a Focus Criterion holds. Furthermore, the incompatibility between *wh*-movement and focus movement in matrix sentences, as in (27), strongly points to the conclusion that they both target CP:

- (27) a. **ISSO a quem disse o Pedro.*
 this to whom said Peter
 b. **A quem ISSO disse o Pedro.*
 to whom this said Peter

This is confirmed also by the fact that focus movement, exactly like *wh*-movement, produces obligatory inversion of the subject, as demonstrated by the contrast in (28), suggesting that if the focussed phrase is in the Spec of CP, V + I is in C:

- (28) a. **ISSO o Pedro disse à Maria.*
 this Peter said to Mary
 b. *ISSO disse o Pedro à Maria.*
 this said Peter to Mary

If so, exactly the same reasons that block enclisis and force proclisis in the case of [+wh], do so in the case of [+f]. In particular, if [+f] is in C, a clitic cannot move to the C position, since it cannot check [+f], thus excluding enclisis. On the other hand, V + I not only can but must move to check the [+f] feature, forcing the clitic to adjoin to V + I; whence proclisis.

This leads us back to (13). To begin with, while most current accounts of head movement, including Chomsky's (1991), concur with Kayne (1989) in treating Neg as a head, there are at least some current accounts where Neg is effectively treated not as a head, but as a feature of a head. This is what the Sigma head of Laka (1990) amounts to, since [+neg] and [+f] are just two possible values of this head. This line of argument does not in itself disqualify the account of negative islands in Kayne (1989) or Roberts (1994), since whatever the relevant property of the Neg head is taken to be, the same property can be associated with a [+neg] head. *Vice versa*, exactly the same considerations go to show that even internally to the theories of Kayne (1989) and Roberts (1994), negative islands do not necessarily argue for the existence of a Neg category.

Suppose then that [+neg] is a feature of a head. Suppose in particular the parallel with [+f] holds, so that [+neg] is a feature in C. If it is indeed a feature in C, then V + I must move to C, if only abstractly, as one more instance of V2 triggered by O2. At the same time, the presence of the operator feature in C will block movement of the clitic to it, since the clitic cannot check [+neg]. Thus enclisis will be blocked and proclisis, namely adjunction of the clitic to V + I, will be forced.

Notice now that though it is not necessary, it is possible for a [+neg] head and a negative quantifier/polarity item to be in a Spec-head configuration; (14) precisely represents such a case. Of course proclisis will be forced and enclisis blocked in (14) by the presence of [+neg], exactly as in the simpler case in (13).

The case of universal quantifiers, as in (15), is comparable to that of negative quantifiers/polarity items. It appears that universal quantifiers can move to an operator position. If so, exactly the same reasoning as before blocks enclisis and forces proclisis in (15), assuming that C is involved. As for existential quantifiers, there is an entirely natural way to capture the way they contrast with universal quantifiers. This is simply to follow Heim (1982) in saying that existential quantifiers are in fact free variables, bound by generalized quantifiers; thus they are not real quantifiers at all.

Finally, *yes-no* questions, as in (17), remain to be taken into consideration. Since they display exactly the same behavior with respect to clitics as ordinary

declarative sentences, we are led to the conclusion that they simply do not involve any operator, at least in Portuguese. As for topicalization, as in (20), it is clear that it does not involve any operator either. This is argued in detail, for instance, by Cinque (1991) for Italian.

In short, the data of Portuguese can be accommodated by assuming that an operator feature in C, including [+wh], [+f] and [+neg], triggers V2 in its own right, as well as preempting CI2. The question now arises whether the independent motivation for the treatment of the interaction of [+neg] and head movement in Kayne (1989, 1991), in terms of L-marking and barriers, or in Roberts (1994), in terms of Relativized Minimality, stands; or whether these approaches can entirely reduce to the present one. This question however goes beyond the scope of the present paper and I will leave it aside for the time being.

One last remark is in order, concerning embedded contexts. As in a number of other languages, in Portuguese the [+wh] feature can be selected in C; on the other hand, focus and negation do not appear to be selected in C. Thus the latter can be embedded under the complementizer *que* 'that', as in (29) and (30):

- (29) *Creio que o Pedro nao encontrou a Maria.*
I believe that Peter didn't meet Mary
(30) *Creio que ISSO disse ele.*
I believe that this said he

Furthermore, focus is only incompatible with *wh*-movement in matrix contexts; in embedded contexts focus can be embedded in *wh*-questions, as in (31):

- (31) *Nao sei porque ISSO disse ele.*
I wonder why this said he

The behaviors in (29)–(31) suggest of course that my construal of C as the position of [+wh], [+f] and [+neg] is inadequate in embedded contexts. This however is an unproblematic result. It has been proposed before, for a number of other languages, that embedded contexts include an additional functional layer. Thus, properties such as [+wh] and [+f] that belong together in matrix sentences are distributed over two functional projections in embedded contexts. One formalization of this proposal is that embedded contexts have a recursion of CP. Another formalization, proposed notably in Tsimplici (1992), is that what we have referred to as CP in matrix sentences is best conceived of as an FP, in the sense of Brody (1990). In addition to this, embedded contexts then have a CP proper, where features belonging to FP in matrix sentences can be selected. Either formalization is adequate for present purposes, though one or the other of them is quite possibly to be preferred on independent grounds.

3. The Portuguese/Italian parameter

Let me sum up so far. On the basis of Portuguese enclisis, I have argued that operator features, such as [+wh], [+f], [+neg] are associated with C. In that case, V + I moves to C to check them. Second, I have argued that when C is otherwise empty, Cl, that is D, can move to C; again V must move to check its features against it. Thus Portuguese is a V2 language, where the trigger for V2 is O2 or D2. The overall picture of V2 in Portuguese appears then to be reasonably clear. On the other hand, it is evident that the problem of V2 has now been pushed back to O2 and D2. The question is what triggers these in the first place.

Consider first O2. The explanation for it appears to be simply that the C head is essentially the O(perator) head. Consider then D2. It appears obvious to suggest that D moves to C, that is the O head, because D is logically construed as an operator binding a variable, ultimately saturating a position in the argument structure of N. The asymmetry between definites and indefinites with respect to cliticization is suggestive of the relevance of quantificational force to X2 phenomena. Thus though Italian has both an indefinite pronoun and an indefinite article *uno* 'one'/'a', and though the indefinite article has a phonologically clitic form *un*, the indefinite pronoun has only a non-clitic form. One could in fact suppose that the indefinite article occupies a position different from D.

Notice that, in accordance with the general framework of Chomsky (1992), it is some operator feature of the clitic that drives movement to C; C must however be associated with a feature against which this can be checked. Nothing here hinges on the exact characterization of the feature, which can simply be thought of as [+O]. We can then assume that this feature is optionally generated on the relevant head, very much as must be assumed for other features of the same kind such as [+wh] or [+f] (perhaps just specifications of the general feature [+O]).

Movement of Cl to C succeeds in checking the operator feature of Cl against C. Suppose on the other hand V + I moves to C to check [+wh] or [+f]. The internal consistency of the present account requires that movement of Cl to V + I in C is sufficient to check the operator feature of Cl. However we must also assume that if Cl moves to C to check its operator feature, movement of V + I to Cl in C is not sufficient to check the [+wh] or [+f] features.

This of course brings to mind the fact that features such as [+wh] and [+f] must also be checked against some phrase in the Spec of CP. We can assume that this is the reason why they must be in the head of C. On the other hand, there is no parallel reason for the operator feature of Cl to be in the head of C. Notice that what I am proposing is that Cl always moves to V + I in C in Portuguese main sentences. Adjunction to V + I in I is not available precisely in that Cl always targets C.

As for embedded sentences, we can assume with Law (1991) that the complementizer *que* 'that' is an expletive element. If so, abstractly speaking, in embedded sentences Cl is in C even if it adjoins to V + I in I, since V + I forms

an expletive chain with C. The absence of such an expletive element and expletive chain in main sentences completes the explanation of the simple root/embedded asymmetry.

Consider next the case in which an embedded [+wh]/[+f] feature is present. If V + I overtly moves to C as in matrix sentences, we can assume that exactly as in matrix sentences the clitic is licensed in the C position via adjunction to V + I in C. If V + I does not move to C overtly, we can assume that exactly as in other embedded contexts an abstract dependency is created between V + I in I and C, whereby the clitic again satisfies its feature checking requirements.

Finally, notice that throughout this discussion I have systematically referred to the categories I and C, though at least in the case of C, I have explicitly indicated that a recursive C, or an additional category F, is needed in embedded contexts. In the same way, it is generally accepted that I must be decomposed into several component parts. However my discussion in terms of I and C should be reconcilable with these latter proposals by simply taking I to stand for the entire field of V-related categories, and C for the entire field of V'-related ones.

If what precedes is on the right track, a theory of X2 is emerging at least in speculative form. The first head in the sentence is an operator head, to which movement of operator heads takes place, including D. The crucial question that still remains open is the question of parametrization. In other words, why is the X2 behavior not universal? In fact, there is at least one subcomponent of the X2 behavior, namely O2, which is generally deemed to be universal. In particular, if Rizzi (1991) is correct, there is no exception to the triggering of V2 by O2 in either Romance or Germanic languages. In other languages and/or families, it appears that the data are best accounted for by postulating similar properties of C, though no V2 overtly takes place. Indeed it is perfectly possible to assume that the latter takes place abstractly, thus making the X2 behavior universal. In other words, if there is a parameter, it is a spell-out one, as suggested in recent frameworks making use of essentially one level of representation, including Chomsky (1992) and Brody (1992/93).

Consider next D2. Here one basic parameter concerns the presence versus absence of clitics in the language. What is more interesting, however, is the case of two languages which both have clitics, but which are parametrized with respect to D2. A case in point is of course the contrast between Portuguese and Italian, where D moves to C in Portuguese, but to I in Italian. If D2 is impelled by the operator-like nature of D, then we expect such a property not to be parametrized. Nevertheless, what can be parametrized is again whether movement takes place overtly, given the appropriate properties of D, or abstractly.

Consider Italian. First, according to Rizzi (1991) Italian has V2 triggered by O2, with the pattern of subject inversion resulting from it. Second, enclisis, that is movement of the clitic to an empty head, is also possible in Italian. However, enclisis in C is never possible. The difference between clitics in Portuguese and

Italian appears then to be that in the latter clitics overtly behave like agreement elements. Thus they are compatible with all and only agreement positions, in practice I.

In other words, the parameter between Portuguese and Italian is a typical spell-out parameter. In both languages the clitic will have to move at least to I and in both languages movement will abstractly target C. However, if only the operator features associated with Portuguese clitics are strong, in the sense of Chomsky (1992), only they will surface in C; Italian clitics will not. The historical shift from Old Italian, which shows patterns of enclisis and proclisis of the Portuguese type to its Modern counterpart can be explained in terms of the same parameter.

In summary, what I have tried to provide is on the one hand a schema of explanation for X2 phenomena universally. In particular C is to be identified universally with an O head, targeted also by D-movement. On the other hand I have tried to provide a schema of explanation for cliticization parameters. Morphological differences between languages, in the spirit of such frameworks as Chomsky (1992) and Brody (1992/93), determine to which extent abstract D-movement to C will overtly surface. Portuguese, and perhaps Old Romance in general, represent a case where O2 and D2 can both be overtly seen, as opposed to Italian, where D2 is always abstract. V2 is a byproduct of logical X2 if I am correct.

This brings us back to the issue of V2 in Germanic languages, which I sought to clarify by looking at Portuguese V2. My findings appear to be compatible with two main theories of the phenomenon in (1) and (2), while excluding a certain number of others. The first theory, whose proponents include notably Travis (1984) and recently Zwart (this volume), holds it to be true that V2 in German as in English or in Romance languages is limited to cases of O2. Thus (3b) is indeed the correct structure for topicalized or focused structures of the type in (2b), while in ordinary SVO sentences V has only moved to I. This theory is of course compatible with the characterization of V2 proposed here precisely in the same way as English or the Romance languages are.

On the other hand, the present characterization of V2 is also compatible with an analysis of German under which (3b) is the structure for all main sentences, including non-topicalized/non-focussed SVO patterns, and V2 is triggered by T2, that is, movement of T to C, as originally suggested by Den Besten (1983). Indeed T2 can be conceived as being analogous to D2, since T in C, like D in C, can be construed essentially as an operator that binds a variable, ultimately saturating a (temporal) argument position of V. The parallel between T and D is explicit in a semantic framework of the type of Higginbotham's (1985), as is the nominal-like nature of T in the framework for temporal interpretation of Eng (1987). Of course, the parameter associated with T2 will have to be conceived of as a spell-out parameter of the same type as the parameter associated with D2.

In short, if I am correct, just two theories of German(ic) V2 remain possible,

as indicated. The choice between the two, on the other hand, depends on issues which are obviously beyond the scope of the present article, such as what can be taken to be the basic word order of German and similar languages. My discussion will then have to be left provisionally open at this point.

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References

- Benincà, Paola (1991). Complement clitics in Medieval Romance: The Tobler-Mussafia Law. In *Eurotyp Working Papers: Clitics and Their Hosts*, Henk van Riemsdijk and Luigi Rizzi (eds.), 1–22. Tilburg University.
- Besten, Hans den (1983). On the interaction of root transformations and lexical deletive rules. In *On the Formal Syntax of the Westgermania*, Werner Abraham (ed.), 47–131. Amsterdam: John Benjamins.
- Brody, Michael (1990). Some remarks on the focus field in Hungarian. In *UCL Working Papers in Linguistics*. Vol 2., John Harris (ed.), 201–225. University College London.
- (1992/1993). Lexico-Logical Form. Unpublished manuscript, University College London. [To appear as *Lexico-Logical Form*. Cambridge, MA: MIT Press.]
- Cardinaletti, Anna and Ian Roberts (1991). Levels of representation of agreement. Unpublished manuscript, University of Geneva. [To appear in *Levels of Representation*, Wynn Chao and Geoffrey Horrocks (eds.). Berlin: Mouton de Gruyter.
- (1986). *Barriers*. Cambridge, MA: MIT Press.
- (1991). Some notes on economy of derivation and of representation. In *Principles and Parameters in Universal Grammar*, Robert Freidin (ed.), 417–454. Cambridge, MA: MIT Press.
- (1992). A minimalist program for linguistic theory. *MIT Occasional Papers in Linguistics* 1. Massachusetts Institute of Technology, Cambridge.
- Cinque, Guglielmo (1991). *Types of A'-Dependencies*. Cambridge, MA: MIT Press.
- Enç, Murvet (1987). Anchoring conditions for Tense. *Linguistic Inquiry* 18: 633–657.
- Heim, Irene (1982). The semantics of definite and indefinite noun phrases. Unpublished Ph.D. dissertation, University of Massachusetts at Amherst.
- Higginbotham, James (1985). On semantics. *Linguistic Inquiry* 16: 547–594.
- Kayne, Richard (1989). Null subjects and clitic climbing. In *The Null Subject Parameter*, Osvaldo Jaeggli and Kenneth Safir (eds.), 239–261. Dordrecht: Kluwer.
- (1991). Romance clitics, verb movement and PRO. *Linguistic Inquiry* 22: 647–686.
- (1993). The antisymmetry of syntax. Unpublished manuscript, City University of New York.
- Laka, Itziar (1990). Negation in syntax. Unpublished Ph.D. dissertation, Massachusetts Institute of Technology, Cambridge.
- Law, Paul (1991). Effects of head-movement on theories of subadjacency and proper government. Unpublished Ph.D. dissertation, Massachusetts Institute of Technology, Cambridge.

- Lema, José and Maria-Luís Rivero (1990). Long Head Movement: ECP vs. HMC. In *Proceedings of NELS 20*, Juli Carter, Rose-Marie Déchaine, Bill Philip and Tim Sherer (eds.), 333–347. Amherst, MA: Graduate Linguistic Student Association, Department of Linguistics, University of Massachusetts at Amherst.
- (1991). Inverted conjugations and V-second effects in Romance. In *Theoretical Advances in Romance Linguistics*, C. Laeufer and T. Morgan (eds.), 311–328. Amsterdam: John Benjamins.
- Madeira, Anna Maria (1992). On clitic placement in European Portuguese. In *UCL Working Papers in Linguistics*. Vol. 4, Hans van de Koot (ed.), 97–122. University College London.
- (1993). Clitic second in European Portuguese. *Probus* 5: 155–173.
- Manzini, Maria Rita (1992). *Locality*. Cambridge, MA: MIT Press.
- (1993). Triggers for V2: Germanic and Romance. In *Quaderni del Dipartimento di Linguistica dell'Università di Firenze* 4: 1–17.
- (1994). Locality, minimalism and parasitic gaps. *Linguistic Inquiry* 25: 481–508.
- Rizzi, Luigi (1990). *Relativized Minimality*. Cambridge, MA: MIT Press.
- (1991). Residual verb second and the wh criterion. *Technical Reports in Formal and Computational Linguistics* 2. University of Geneva.
- Roberts, Ian (1991). Excorporation and minimality. *Linguistic Inquiry* 22: 209–218.
- (1994). Two types of head movement in Romance. In *Verb Movement*, Norbert Hornstein and David Lightfoot (eds.), 207–242. Cambridge: Cambridge University Press.
- Rouveret, Alain (1992). Clitic placement, focus and the Wackernagel position in European Portuguese. Unpublished manuscript, Université de Paris VIII.
- Travis, Lisa (1984). Parameters and effects of word order variation. Unpublished Ph.D. dissertation, Massachusetts Institute of Technology, Cambridge.
- Tsimpli, Ianti (1992). Focussing in Modern Greek. Unpublished manuscript, University College London.
- Uriagereka, Juan (1992). A focus position in Western Romance. Unpublished manuscript, University of Maryland.
- (1993). Cliticization in Western Romance. Unpublished manuscript, University of Maryland.
- Williams, Edwin (1981). On the notions 'Lexically Related' and 'Head of a Word'. *Linguistic Inquiry* 12: 245–274.
- Zwart, Jan-Wouter (this volume). Dutch is head-initial.