Information Structural Recursion at the Phase Level

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1 Introduction

1.1 Theoretical Questions and Motivation

The aims of this paper are threefold: firstly, I address the structural question of what actually consitutes the edge of the phase (Chomsky, 1995, 1999, 2000, 2001a,b, 2005). I follow Chomsky (2005) in assuming a necessary bifurcation of this domain, but put forward two independent projections – LinkP and AgrP – which I claim are specifically phase edge projections, recurring at the top of each phase, and fulfilling clearly defined feature checking roles within this edge domain. To this end, I introduce the feature [+Link]. Whilst this feature is shown to acquire a particular semantic interpretation at each different phase level, its overarching nature, namely of marking an element as having been selected from a poset (set of possible alternatives), remains constant, thus providing us with a unified definition of the phase.

The second aim of this paper, accordingly, will be to discuss what actually are the phases within a syntactic derivation, and, moreover, how the derivation should proceed. I argue that the phases should be taken to be TP, *v*P, and DP (although I will not exclude the possibility of there being further phases such as AuxP or ModP, following Butler (2004) and Cottell and Henry (2005)), and I provide arguments to support this claim, both from pre-existing literature (Dimitrova-Vulchanova and Giusti, 1998; Jayaseelan, 2001; Belletti, 2004; Haegeman, 2004; Svenonius, 2004), as well as from empirical phenomena I have studied myself (including both VP and NP ellipsis (Gengel and McNay, 2006a,b), discontinuous DPs (McNay, 2005b, 2006b), and 'topicalisation', or movement to the Vorfeld, in German (McNay, 2004)). I then consider the derivational process itself, with particular reference to V2 in German (1), whereby the verb must occur in second position, and thus cannot be preceded by both focus and topic simultaneously, as is possible in Italian (2):

(1) a. Hans hat das Buch gelesen
Hans has the book read
b. Das Buch hat Hans gelesen
c. *Hans das Buch hat gelesen
d. *Das Buch Hans hat gelesen

(2) A Gianni, QUESTO, domani, gli dovrete dire
To Gianni, THIS, tomorrow, him you-should tell
(Rizzi, 1997, 291, e.g.23)

This poses a problem for Rizzi's (1997) left peripheral split CP structure, where topic and focus each project their own (possibly recursive) sentence-initial positions. By reducing this periphery to a minimum, as we do here, I argue that this problem can be overcome. Employing the proposed structure, then, I show firstly that a Remnant Movement analysis (Nilsen, 2002, 2003; Müller, 2004) is unsuitable, before arguing for an approach with multiple specifiers (Richards,

2001) and showing that this is not only compatible with V2, but also accounts for cases of apparent V3 in German.

Finally, with regard to the (somewhat controversial) TP phase level, I show that by adopting the particular edge domain structure proposed here, we are not faced with the problems discussed by Chomsky (2000, 2001a,b, 2005) and Richards (2006), whereby the derivation would crash if TP were taken to be the phase, because here it will crucially only constitute the domain, with its own LinkP and AgrP edge. That is, LinkP and AgrP, the edge domain projections, make up what we used to think of as the CP phase layer (or split CP), and, at the sentential level, this is actually sandwiched between C and T, with TP therefore representing the actual phase, and CP sitting above this phase as and when needed to host the complementiser.

Whilst the idea of a reiterated information structural layer at the lower phase levels is by no means new (cf. also Starke (1993) and Butler (2004)), this will be a first attempt to unify these projections across all three domains, and to explain what exactly it is which may move to or through the heads and specifiers thereof. As a result, this paper puts forward a clear definition of what a phase is, how its edge is composed, and what the semantic import of this is.

1.2 Outline of Paper

Firstly, in §2, we deal with the question of what constitutes the edge domain of a phase. §2.1 looks at some basic information structural notions, and, turning to the left periphery or traditional CP layer, and considering German data, points out what it is that unifies the topic and focus elements which may occur there, thus motivating the [+Link] feature and the LinkP projection in which either element may occur. §2.2 then looks at the arguments put forward in Chomsky (2005) as to why we need to allow for a second projection within the phase edge and uses this to motivate AgrP. We then turn to the second question at hand, and look at the motivation for and evidence of a recursive edge domain above the lower phase levels as well (§3). §3.1 discusses the vP phase, and §3.2 moves on to the DP phase. §4 turns to the problem of enforcing V2, and considers, firstly, a Remnant Movement approach (§4.1), before adopting and motivating the alternative of multiple specifiers (§4.2), which, in §4.3, is argued to also be able to account for exceptional cases of V3 in German. §4.4 shows some sample derivations, before §4.5 suggests some possible parameters to account for the freer ordering in non V2 languages, including Italian. Finally, §5 returns to the top of the clause and argues for its being the TP which is the phase, not the CP. §6 is a conclusion.

2 Projections in the Left Periphery

2.1 Motivating LinkP

To begin with, let's take a look at the first projection I wish to propose at the phase edge, namely LinkP. The aim of this position, and the feature checked here – [+Link] – is to capture the unifying features between topics and foci which may occur in sentence-initial position, and, as such, it is essentially an information structural projection.

One of the most important works on information structure has to be Vallduví's (1993) survey. He takes as a starting point the fact that even though there is some degree of overlap between topic/comment and ground/focus, none of the traditional bipartite divisions of the sentence – e.g. into *theme* and *rheme*, *old/given* and *new*, *topic* and *comment*, and *ground* and *focus* – is capable of capturing the entire range of possibilities which exist for structuring

a sentence with regard to the referential status of its parts. As a result, he chooses to use his own system in which he proposes a trinomial hierarchical articulation, where he takes the usual binary distinctions and conflates them into a single schema. For discussion, he takes the example shown in (3), where his schema is given in (3g):

(3) Vallduví's Terminology
  a. What about John? What does he drink?
  b. [$_{Topic}$ John][$_{Comment}$ drinks BEER]
  c. [$_{Ground}$ John drinks][$_{Focus}$ BEER]
  d. What about John? What does he do?
  e. [$_{Topic}$ John][$_{Comment}$ drinks BEER]
  f. [$_{Ground}$ John][$_{Focus}$ drinks BEER]
  g. sentence = { focus, ground }
     ground = { link, tail }
  h. [$_{Ground}$ [$_{Link}$ John][$_{Tail}$ drinks]][$_{Focus}$ BEER]

Vallduví takes the human knowledge-store to be a Heimian collection of entity-denoting file cards (Heim, 1982), and communication to be a process of updating these cards, with focus completing or altering a record in some way. Thus, in his schema, focus encodes the *actual information* of the sentence, link indicates *where* the information should be entered within the hearer's knowledge-store (this corresponds to *topic*), and tail indicates *how* it fits there.

Choi (1996) further distinguishes between different subtypes of foci on the basis of her observations of violations of the anti-focality constraint which is said to prohibit any focus element from scrambling (Lenerz, 1977; Webelhuth, 1992). She notes that some focus elements, namely those which appear to occur in contrastive situations, can indeed scramble. She argues that the property which distinguishes these two types of focus is *prominence*, a property also shared by the link or topic:

> '"Topicalisation" in English not only encodes the topichood of the fronted element but also expresses the contrastive focality. If we assume that topic and contrastive focus share the same discourse property of being "prominent", English topicalisation can be regarded as a uniform phenomenon, namely, an operation of encoding "prominence".'

She adds that the topic ought also be conceived of as contrastive since it is being picked out from the set of other potentially topical elements in the discourse, including the tail, as well as sentence-external elements. This notion of a set of possible alternatives is captured by Ward and Birner (2001, 121) who call it the *poset*.

Following from these observations, in McNay (2004, 2005a) I introduce the feature [±Link] to capture the presence or absence of a poset, and assume it is, therefore, valued as positive, at the sentential level, for any kind of topic, as well as for contrastive focus. Based on an analysis of the possible word orders for felicitous question-answer pairs in German, I showed in McNay (2004) that whilst [+Link] elements preferentially occur sentence-initially in the Vorfeld, [−Link] elements *cannot* move up this high. Example (4) shows, for example, that either the topic or the contrastive focus may occur in the Vorfeld Link position in German:

(4) a. Was hat Hans gegessen?
  What has Hans eaten?

b. Hans hat den APFEL gegessen
Hans has the APPLE-acc eaten
→ Topic precedes focus

c. Den APFEL hat Hans gegessen (, nicht den PFIRSICH)
The APPLE-acc has Hans eaten (, not the PEACH)
→ Focus precedes topic, but, in this case, must be either implicitly or explicitly [+Link] – i.e. contrastive

Furthermore, expletives may occur sentence-initially in thetic (presentational) sentences, where it is the event as a whole which is being described, and no specific subject is having something predicated of it (for further discussion of the thetic/categorical distinction, cf. Kuroda (1972); Sasse (1987); Ladusaw (1994)):

(5) Es kommt ein Mann aus dem Haus
It comes a man out the house
'There's a man coming out of the house'

The [+Link] feature captures the commonalities between these different elements – namely, they all constitute what might broadly be termed as *aboutness topics* (cf. Endriss and Hinterwimmer (2006) for a more precise definition). I therefore take the [+Link] feature at this level to be analogous to Rizzi's (2004) [+aboutness] feature. What becomes clear from examples (4) and (5) is that there is a sentence-initial position to which these [+Link] elements must move in order to check this feature, and this is what I refer to as SpecLinkP. Furthermore, since both topic and contrastive focus may move here, but, crucially, not at the same time, it would seem undesirable and computationally inefficient to maintain the separate projections of TopP and FocP, à la Rizzi (1997).

Consider now the example in (6) where there are two contrastively focused elements:

(6) a. Wer hat was gegessen?
Who-nom has the what-acc eaten?

b. Both answers are possible:

i. HANS hat den APFEL gegessen
HANS has the APPLE-acc eaten

ii. Den APFEL hat HANS gegessen
The APPLE-acc has HANS eaten

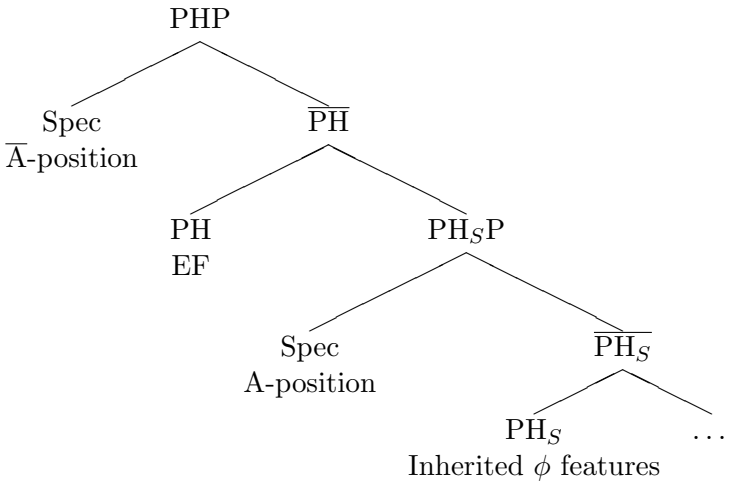
Owing to German being a V2 language, it is not typically possible for both of these [+Link] elements – *HANS* and *den APFEL* – to move to SpecLinkP in the preverbal Vorfeld; one necessarily has to remain lower down, arguably in a vP focus position (Jayaseelan (2001); Belletti (2004); cf. §3.1 for further detail). Accordingly, I propose that the [+Link] feature must also be able to be checked at lower levels, and, as such, that the LinkP projection must be recursive. Furthermore, whilst both *HANS* and *den APFEL* are d-linked (i.e. in this case, contrastively focused), only the element in the Vorfeld gets further interpreted as being the aboutness topic. Thus, whilst I have compared [+Link$_T$] (the [+Link] feature checked in the sentence-initial position) to Rizzi's (2004) [+aboutness] feature, I additionally argue that [+Link$_v$] must be related to his [+d-linking] feature, or, in the broader sense, mark [+contrast] (cf. discussion of ellipsis phenomena in §3.1). Finally, in §3.2, I will argue that [+Link$_D$] gets the interpretation of [+partitive] (McNay, 2005b, 2006b).

2.2 Motivating AgrP

Having argued for the need to have a LinkP projection at the top of each phase, we must now consider whether this alone suffices, or whether, akin to the Rizzian tradition, something more complex is required. Whilst it might seem optimal to avoid a split layer – because of the added ease of explaining V2 phenomena – it nevertheless proves to be necessary, once we extend this proposal to recur above the lower phases as well as at the left periphery of the sentence as a whole, to allow for a second projection within the edge domain to which [−Link] elements might move in order to escape from the phase. For example, as we shall see in §3.2, we need non-partitive nominals to be able to move out of the DP phase without transiting through the [+Link]-marked specifier. We also, of course, need to consider the nature of the vP-peripheral, [−Link], completive focus position (assuming that the traditional distinction between such focus types exists. cf. Brunetti (2003) for arguments that it does not). Nevertheless, it remains the case that it would not be efficient to have to compute numerous and iterated empty positions for topic and focus in every sentence, especially since, as already discussed, these elements share more important semantic features in terms of the presence/absence of a poset, and also cannot both occur preverbally in V2 languages.

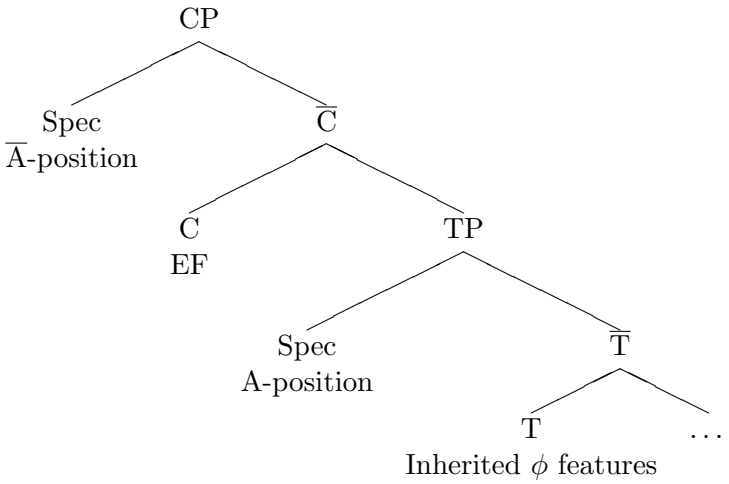
Chomsky (2005) proposes that each phase head phrase (PHP) selects for what he refers to as a *selected phase head phrase* (PH_SP):

(7) The Phase Edge (Chomsky, 2005):



The specifier of the phase head itself corresponds to a traditional $\overline{\text{A}}$-position, whilst the specifier of the selected phase head corresponds to an A-position. Furthermore, whilst the phase head itself bears the edge features which trigger movement of phrases which want to escape the phase, it is the selected phase head which bears (or, rather, inherits) ϕ features, triggering movement for the purpose of agreement. An example to make this clearer might be given by substituting CP for the phase head phrase, and TP for the selected phase head phrase as in (8). Whilst Chomsky maintains that it is C which is the phase, and which carries the edge features, it appears to be T which ultimately carries the ϕ and tense features, and these features are accordingly checked in SpecTP, not SpecCP:

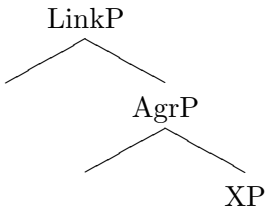
(8) The CP Phase (Chomsky, 2005):



Following from this, I propose a second projection just below LinkP, which I label AgrP, adopted from Richards (2001).[1] It should be noted that Shlonsky (1992) has also suggested the decomposition of CP into CP and AgrP, and Haegeman (1995, 184) also draws such a tree. I shall assume, then, that AgrP checks features such as case, tense, and ϕ features, whilst LinkP is operator-like and checks the edge feature [+Link]. All arguments must move through AgrP, but only those carrying the [+Link] feature continue through LinkP. Both projections, however, act as escape hatches from the phase, i.e. they together constitute the minimal edge domain.

2.3 The Structure of the Phase Edge

Pictorially, the structure of the phase edge domain proposed here is as shown:



3 A Recursive Periphery

Before we address the question of how movement through and to these edge positions proceeds, let me give a short overview of some of the further motivation for assuming the 'split CP' information structural phase edge layer to recur lower down in the sentence, namely above vP and DP.

[1] Richards (2001) actually calls this Agr$\forall$P, since all arguments must move through it to check case. However, to avoid confusion with quantificational elements, I simplify the term to AgrP.

3.1 Motivating the *v*P Phase Edge

With regard to the *v*P level, Belletti (2004) looks at Italian data, including the question/answer pairs in (9), and notes that whilst a postverbal subject may receive readings as either new completive focus, or as topic (with suitable pragmatic conditions and intonation), a preverbal subject can never be interpreted as completive focus:

(9) a. Chi è partito / Chi ha parlato / Che cosa è successo?
Who is left / Who has spoken / What thing is happened?
Who has left / Who has spoken / What has happened?

b. E' partito / ha parlato Gianni
Is left / has spoken Gianni

c. # Gianni è partito / ha parlato
Gianni is left / has spoken
Gianni has left / has spoken

(10) a. Che cosa ha poi fatto Gianni?
What thing has finally done Gianni?
What has Gianni finally done?

b. Ha (poi) parlato, Gianni
Has (finally) spoken, Gianni

(Belletti, 2004, e.g. 9–11)

She argues, therefore, that since the subject position in her examples occupies a low structural position (it follows low adverbs), we are led to postulate clause internal topic/focus positions, parallel to those in the left periphery:

> '. . . [T]he area immediately above VP displays significant resemblance to the left-periphery of the clause . . . a clause-internal Focus position, surrounded by Topic positions, is identified in the low part of the clause.'

Jayaseelan (2001) looks at similar data from Malayalam and various Germanic languages, and draws essentially the same conclusion as Belletti. Although Malayalam is generally assumed, like German, to be a canonically SOV language, Jayaseelan assumes Kayne's (1994) notion of the universal SVO base order, with the surface order derived via movement of the subject and object into higher functional projections: the subject to SpecTP, and the object to some position above *v*P but below TP. His observations about Malayalam include the fact that, in *wh*-questions, there is a seemingly strict requirement for the *wh*-word to be immediately to the left of the verb ((11) – (15)), and that this thus overrides the SOV requirement, with the *wh*-subject intervening between O and V. Where a clause contains multiple *wh*-words as in (16), however, we find them stacked up together, preverbally:

(11) a. ninn-e aare aTiccu?
you-acc who beat-past
Who beat you?

b. ∗aare ninn-e aTiccu?

(12) a. iwiTe aare uNTe?
here who is
Who is here?

b. ∗aare iwiTe uNTe?

(13) a. awan ewiTe pooyi?
he where went
Where did he go?

b. ∗ewiTe awan pooyi?

(14) a. nii aa pustakam aar-kke koDuttu?
you that book who-dat gave
To whom did you give that book?

b. ∗nii aar-kke aa pustakam koDuttu?

(15) a. nii ente aaNe tinn-ate?
you what is ate-nominalizer
What is it that you ate?

b. ∗ ente nii aaNe tinn-ate?

(Jayaseelan, 2001, 40)

(16) ii kaaryam aare aar-ooDe eppooL paRaññu enne eni-k'k'e aRiy-illa
this matter who whom-to when said COMP I-DAT know-neg
I don't know who told this matter to whom, when

This, Jayaseelan concludes, is parallel to the multiple *wh*-movement found in languages such as Polish and Hungarian, except that the landing site is not the left periphery of the sentence, but rather some internal periphery, to the left of the verbal complex – a CP heading the vP phase.

Finally, Gengel and McNay (2006a,b) discuss the phenomena of VP Ellipsis (17), Pseudogapping (18), and Gapping (19), and argue that these can be given a unified analysis, if one adopts the phase edge LinkP and AgrP projections above vP, along with a phase based deletion approach (as proposed in Gengel (2006), whereby ellipsis is analysed as involving deletion of the entire phase domain and not just the phrase at hand):

(17) a. The students will attend the play, but the faculty won't [e]

b. The students should attend the play, but they won't [e]

(18) a. The students should attend the play, and the faculty should [e] the concert

b. The students should attend the play, but (instead) they will [e] the concert

(19) The students should attend the play, and the faculty [e] the concert

In Gapping (19), both the remnant subject and object are necessarily contrastive. We assume, therefore, that they are both marked as [+Link$_v$] (i.e. [+ contrastive d-linking]) and move to specifiers of Link$_v$P. This is then followed by deletion of the entire vP domain. The subject is then moved on higher to SpecLink$_T$P to be interpreted as aboutness topic. In cases of Pseudogapping, however, whilst the object must, again, necessarily be contrastive, the subject need not be. When it is, as in (18a), we assume the derivation is basically the same as for Gapping, with movement of both subject and object to specifiers of Link$_v$P, deletion of the entire vP domain, further movement of the subject to SpecLink$_T$P, and additional insertion of an auxiliary into this final phase. When the subject is not contrastive, however, as in (18b), we assume it only moves as high as SpecAgrP in the vP phase periphery, whilst the object still moves further to SpecLink$_v$P. However, since the subject is also marked as [+Link$_T$] (in the sense of being the aboutness topic), it then moves on up from SpecAgr$_v$P to SpecLink$_T$P.

Finally, in cases of VP Ellipsis (17), the subject moves up through either just SpecAgr$_v$P (if it is not contrastive, (17b)) or SpecLink$_v$P (if it is contrastive, (17a)), to SpecLink$_T$P. The object is not contrastive, and therefore needn't move to check any operator-like features at the vP phase edge. It therefore gets deleted along with the rest of the vP.[2] *Do*-support is added in the same position as the auxiliary in Pseudogapping. I shall return to these examples and show pictorial derivations for (18a) and (18b) in §4.4. For now, let it suffice to say that there are, indeed, significant arguments in favour of there being a vP level information structural phasal left periphery, and that its breakdown into LinkP and AgrP, as proposed already for the sentential left periphery, helps provide a unified analysis for a number of cross-linguistic phenomena.

3.2 Motivating the DP Phase Edge

Let's turn now to the DP phase edge. As for the vP, there has been much work already suggesting that there may be some kind of information structural layer to its left. Haegeman (2004) has looked at data concerning possessors, Dimitrova-Vulchanova and Giusti (1998) have considered topic and focus projections based on evidence from the Balkan languages, and Sauerland (2004) argues for there being an Agr projection above the DP. For reasons of space, however, I shall restrict myself here to a brief summary of Svenonius' (2004) data from Tsez (a Nakh-Daghestanian language), followed by an overview of my own arguments based on discontinuous DPs and NP Ellipsis in German, Dutch and English.

Firstly, then, we turn to Svenonius (2004), which presents data from Tsez, on the basis of which it is argued convincingly that there must be some DP-internal movement to allow, for example, for cross-clausal agreement as in (20a) where the main verb agrees with the class III noun 'bread', and (20b) where it agrees with the class I noun 'boy':

(20) a. enir [uza magalu bac'ruli] biyxo
mother-DAT [boy-ERG bread-III-ABS III-eat] III-know
'The mother knows the boy ate the bread'

b. enir [uzi ayruli] iyxo
mother-DAT [boy-I-ABS I-arrive] I-know
'The mother knows the boy arrived'

Whilst the DP controlling the agreement need not be overtly at the edge of the embedded clause, Polinsky and Potsdam (2001), from whom the data originates, argue that the controller of agreement does covertly move to a topic position at the periphery of the embedded clause. They also show that when there is cross-clausal agreement, the embedded absolutive is necessarily interpreted as a topic. Svenonius adopts and analyses this data as showing that it is necessary to move some subpart out of a quantificational DP (or QP) and up to what he calls SpecOpP, but which presumably might correspond to my SpecLinkP, from where it might remain visible even after the QP spells out. Again, Tsez presents some overt evidence for such movement, in that it has some structures where a topic (Op) head overtly follows the rest of the noun phrase, as in (21):

(21) bikori-n uz-a bexursi
snake-ABS-TOP boy-ERG killed
'As for the snake, the boy killed it'

[2] cf. Gengel and McNay (2006a,b) for further detail, and discussion of how deletion is motivated.

In McNay (2005b, 2006a,b), I assume similar movement to the edge of the DP phase to take place in the derivation of discontinuous DPs and NP Ellipsis constructions in German, English, and Dutch. The observation that the adjectives (or quantifiers) licensing both of these phenomena share similar properties goes back to Fanselow (1988) and has recurred in more recent literature (van Hoof, 2002; Ntelitheos, 2003, 2004), where it is claimed to hold for quite a number of languages. For our purposes here, the type of discontinuous DPs which occur in German and some southern dialects of Dutch (principally Northern Brabantish) most usually come about in cases of split topicalisation, where the noun is fronted, but the quantifier remains lower down in the derivation (SNPT – Split NP Topicalisation – in van Hoof's (1997; 2002; 2005) terminology). For example, (23a) and (23b) show the fully topicalised and split topicalised versions respectively of the normal German SVO utterance in (22):

(22) Er hat viele Bücher gekauft
He has many books bought

(23) a. Viele Bücher hat er gekauft
b. Bücher hat er viele gekauft

Split topicalisation in German is a fairly productive phenomenon. In Dutch, it is much less so, and, even in the dialect (Northern Brabantish) where it is permitted, there is a clear need for the involvement of the notion of contrast (van Hoof, 2002). Furthermore, if we try to split a DP in Standard Dutch, a number of overt partitive markers (prepositions and R-pronouns) become necessary (Sjef Barbiers, p.c.):

(24) a. Dafna zoekt geen griffioenen
Dafna seeks no griffins

b. *Van* griffioenen, *daar* zoekt Dafna *er* geen een *van*
Of griffins, *daar* seeks Dafna *er* no one of

In McNay (2005b, 2006a,b), I argue that we can turn to the semantic notion of partitivity to explain both the motivation for, and the interpretation of these constructions. We have already seen that, at the most abstract level, the [+Link] feature is used to mark an element selected from a poset. More specifically then, at the DP level, it can be used to mark partitivity, i.e. the selection of a nominal element from a specific wider reference set. McNay (2006b) extends this idea and introduces the notion of pseudo-partitivity. Here, unlike for partitivity, the reference set does not consist of specific tokens, but rather of kinds (cf. Carlson and Pelletier (1995, 64)). Not only do particular tokens not need to be contextually available, they may, in fact, not even exist. I thus argue that, in the case of splitting, it is pseudo-partitivity, rather than partitivity, which plays a role. This explains why it is possible to use a split construction (but not as easily the fully topicalised counterpart) with both the negative determiner (25a) and a fictional entity (25c), as can be seen from the following German examples:

(25) a. Bücher hat sie keine gekauft
Books has she none bought
'As for books, she bought none'

b. ?# Keine Bücher hat sie gekauft
?# No books has she bought
≈ 'As for no books, that is what she bought' → pragmatically odd

c. Einhörner sucht sie keine
Unicorns seeks she none

d. ?# Keine Einhörner sucht sie
?# No unicorns seeks she

Now compare the contrast in meaning between the cases of split topicalisation, full topicalisation, and no topicalisation, repeated in (26a), (26b), and (26c) respectively:

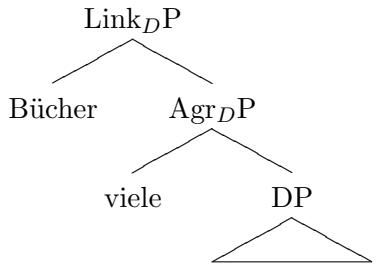
(26) a. Split Topicalisation:
Bücher hat er viele gekauft
books has he many bought
'As for books, he bought many (*of them*)'
→ pseudo-partitive implicature

b. Full Topicalisation:
Viele Bücher hat er gekauft
many books has he bought
'As for *many books*, this is what he bought'
→ no pseudo-partitive implicature

c. No Topicalisation (normal word order):
Er hat viele Bücher gekauft
He has many books bought
'He bought many books'

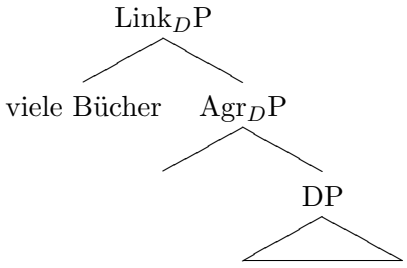
Clearly, in both cases (26a) and (26b), *Bücher* is a topic (in the sense of an aboutness topic, i.e. [+Link$_T$]), since it would otherwise have no reason to move to the Vorfeld. The difference between (26a) and (26b), then, is that the former, through having the N split apart from its quantifier *viele*, acquires a pseudo-partitive reading. The poset from which *books* in (26a) is selected is, therefore, a poset of different kinds, rather than one of different entities or tokens. As generally assumed for pseudo-partitives, we are taking a non-count kind and forcing a measure onto it: *'As for books, he bought many* of them*'*. If the entire DP is selected from a *poset*, as is the case in (26b), however, we do not obtain this pseudo-partitive reading. The interpretation is instead one where we have been talking about a quantity of books already, namely: *'As for many books, this is what he bought'*. My claim, then, is that the splitting in discontinuous German DPs is caused when the NP, but not the full DP, is marked as [+Link$_D$], and therefore has to move to SpecLink$_D$P to check this feature, as shown if you compare the trees for (26a) and (26b) in (27) and (28).[3]:

(27) Pseudo-Partitive Split DP:



[3]I abstract away from the mechanisms of movement at this stage, since this remains to be discussed in §4.

(28) Non-Pseudo-Partitive Non-Split DP:



I return to this example and propose a derivation for the entire sentence in §4.4.

It has also been proposed in the literature (Lobeck, 1995; Sleeman, 1996) that NP Ellipsis might likewise be licensed by the concept of partitivity, thereby explaining the restrictions on which adjectives allow for it without *one*-insertion in English (namely certain quantifiers (29), cardinals (30), deictic determiners (31), possessives (32), comparatives (33a) and superlatives (33b)), and even at all in, for example, French (Sleeman, 1996):

(29) John called out the children's names, and many/few/all/each/some/*every [e] answered
(Lobeck, 1995, 45)

(30) The students attended the play but two [e] went home disappointed
(Kester, 1996, 195)

(31) Although she might order these [e], Mary won't buy those books on art history
(Kester, 1996, 195)

(32) Although John's friends were late to the rally, Mary's [e] came on time
(Kester, 1996, 194)

(33) a. Of the two books available, I will take the larger [e]
b. i. Of the many books available, I will take the largest [e]
ii. Although Helen is the oldest girl in the class, Julie is the tallest
(Quirk et al., 1982)

In these cases, where the interpretation is indeed partitive, I assume that whilst the NP is marked for deletion, and thus remains in situ where it is then ellided along with the entire DP domain (thus in a manner parallel to that assumed for VP Ellipsis and its subtypes in §3.1), the adjective/quantifier/determiner is marked as [+Link$_D$] and thus moves to SpecLink$_D$P to check for this feature. Parallel to the splitting cases just discussed, however, NP Ellipsis may also bring about a pseudo-partitive interpretation, such as in (34) (Gisbert Fanselow, p.c.):

(34) Talking about books, I bought many [e]

In such instances, I propose that the adjective/quantifier/determiner only moves as far as SpecAgr$_D$P, again with the entire DP domain, including the NP, being deleted. As for cases which require overt licensing through *one*-insertion in English (which I take to be an alternative spell out of adjectival inflection in Dutch and German, cf. also Kester (1996) for the same argument), I take this to be motivated through the inherent semantics of the adjective/quantifier/determiner, and whether or not it is able to stand alone in the DP phasal periphery once the domain has been deleted. I shall not go into further discussion of this here, for

reasons of space, but refer anyone interested to McNay (2006a) and Gengel and McNay (2006a).

What I hope to have motivated in this brief overview, then, is the need, at the DP level, for both the [+Link] feature to capture the concept of partitivity (again, selection of an element from a set of possible alternatives), as well as for the biphrasal phase periphery, consisting of LinkP (where the [+Link$_D$] feature is checked) and AgrP.

4 V2 in the Germanic Languages

As already noted, the main problem with having more than one projection in the left periphery is how we can then maintain and enforce V2 in Germanic languages. One of the main motivations for simplifying Rizzi's (1997) periphery was to avoid having multiple positions preverbally, in the sentence-initial left periphery. Following standard V2 analyses, such as Holmberg and Platzack (1995) inter alia, the finite verb (Vf) is assumed to move to the highest functional projection of the clause via head movement, before some other element fronts to the specifier of this same projection. Since there is a general ban on adjunction to CP, Vf will always end up in the second position of the clause:

(35) $[_{CP}$ XP$_i$ $[_{CP}$ Vf$_j$ +C $[_{IP}$ ... t$_j$ ... t$_i$ ...]]]

If we have a split CP like Rizzi's, however, the verb, which he assumes to sit in Fin^0, is preceded by at least four (depending on the recursion of TopP) potential XP landing sites, only one of which may be filled in any given utterance:

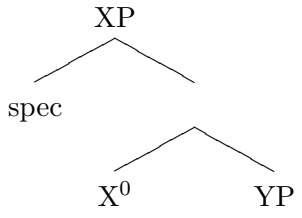
(36) $[_{ForceP}$ $[_{TopP*}$ $[_{FocP}$ $[_{TopP*}$ $[_{FinP}$ Vf ...]]]]]

Clearly this requires stipulation, and leads also to redundancy.

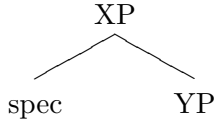
4.1 The (Im)possibility of Remnant Movement

Firstly, then, let's look at an alternative approach to V2, implemented by Nilsen (2002, 2003) and Müller (2004), namely Remnant Movement. The main point of such an analysis is to avoid analysing V2 as involving head movement, but rather to see it as fronting of the VP itself, or, rather, of an XP containing the VP. Nilsen ultimately contests the existence of any rigid syntactic structure at all, and furthermore, by denying the distinction between heads and specifiers (cf. also Starke (2004)), abolishes head movement altogether, concluding that what we traditionally term a *specifier* is simply whatever element causes XP to project. That is, the structure in (37), where we usually find either the specifier or the head position to be empty anyhow (given the explosion of functional categories in recent Minimalist Syntax), can now be simplified to the structure in (38):

(37)

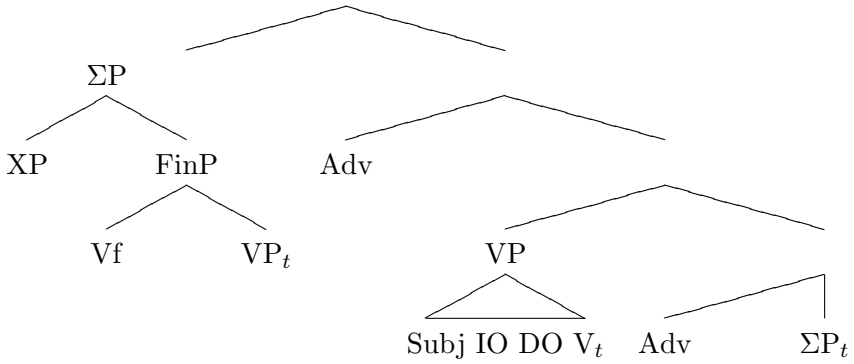


(38)



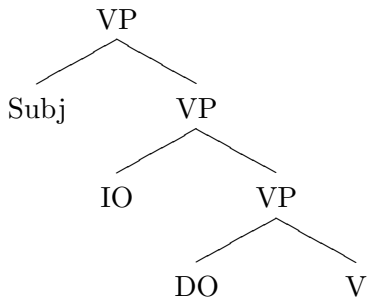
Based on Scandinavian data, Nilsen argues for the following steps to a V2 derivation: firstly, the finite verb is moved out of the VP to a higher FinP projection; secondly, whichever element is going to end up sentence-initially moves to the 'specifier' of what he calls ΣP, above FinP; thirdly, the remnant VP is moved out of this ΣP; and, fourthly, the remnant ΣP is fronted over this moved VP remnant to the top of the sentence.[4] Adverbs can be merged both before and after the VP Remnant Movement:

(39)



One advantage of such an approach, according to Nilsen, is that the ordering of the arguments is preserved. Furthermore, given the lack of rigid structure, there are additional possibilities for merging adverbs in between the arguments if they are strong DPs as opposed to pronouns. In such an instance it is to be assumed that the sub-VPs (each argument merges and projects to a VP) can move individually, rather than necessarily as a whole. Crucially, however, any VP movement must piedpipe along with it whatever structure remains lower down, thus retaining the base ordering configuration:

(40)



There are a number of problems with this approach, however. Firstly, the assumption about VP movement and order preservation cannot carry over directly to German, since this language allows for the scrambling (reordering) of arguments. This cross-linguistic difference will simply have to be stated. Such interargument scrambling also remains unmotivated, since all ΣP evacuation movements are, according to Nilsen, movements to non-labelled, equivalent positions, with no specific interpretative features. As such, we can obtain no syntactic explanation for the different interpretations necessarily associated with scrambling in German. Furthermore, whilst evacuation movement of the VP remnant out of ΣP necessarily involves piedpiping of lower material, prior movement of the ultimately sentence-initial element to SpecΣP does not piedpipe the lower VP along. This must also be stipulated. Then there is the question of FinP

[4]This derivation differs slightly from the ones presented in Nilsen (2002, 2003), but is a more up-to-date version presented by him as part of Maire Noonan's course, *Verb-Initial Languages*, at the DGfS and GLOW Summer School in Stuttgart, August 2006.

and ΣP. Whilst the aim here seems to be to avoid rigid structure building, FinP must, nevertheless, always merge directly above VP, and the finite verb must, for whatever reason, always move here. Secondly, although Nilsen does not wish to employ feature driven movement, the element moving to SpecΣP does, just the same, end up being interpreted as *switch topic* (which seems strikingly reminiscent of my [+Link$_T$] aboutness topic elements), and, importantly, whilst the VP may remnant move in one or more steps, and thus as one or more chunks, only one element may ever move to this SpecΣP position, and thus only one element may ever end up preverbally. Again, if the goal has been to dissolve the distinction between head and phrasal movement, and to get rid of structure and features altogether, these constraints remain to be stipulated.

Accordingly, it seems as if maintaining a notion of structure, along with associated features to drive the movement, is no more stipulatory than the approach attempted by Nilsen himself. Furthermore, by adopting a recursive and symmetrical structure as proposed here, we reduce the number of stipulations to a minimum, since each phase will be built up in an identical manner. What is more, the structure I propose is both minimal, and also semantically driven. As such, it can explain the interpretative differences brought about by different movements, and thus motivate the scrambling of German arguments as well.

Finally, I argue that we have to reject the notion of Remnant Movement altogether, since it is not compatible with the structure being proposed here at all. Whilst it might, at first blush, still seem possible to argue that V2 word order is brought about by the fronting of a remnant – consisting of the finite verb and the preverbal [+Link] element – to SpecLink$_T$P, we face the indissoluble problem of what would actually constitute this remnant. It cannot be just the VP or vP, since the arguments will necessarily have moved out of this domain into the Link and Agr vP phase edge positions, thus leaving nothing to occur in sentence-initial, preverbal position. Furthermore, if we were to move the entire Link$_v$P phase constituent, we would render the AgrP at the higher phase level (i.e. Agr$_T$P) completely redundant, thus destroying the symmetry built up between the phases, and, with it, the main motivation for such an approach. We would also, crucially, encounter problems with deriving verb final word orders both in subordinate clauses, and when an auxiliary occurs in the finite verb second position, and the phase based deletion approach to ellipsis phenomena (cf. §3.1 and §3.2), would also not be compatible with a Remnant Movement approach, since we would want both to delete and to move the selfsame constituent. A final problem with maintaining a Remnant Movement approach would be that we would, again, like Nilsen, require both Remnant Movement, and also prior phrasal and/or head movement of elements to the phase edge. This would seem to complicate, rather than simplify, the derivation, even more so because of the necessity of moving multiple elements to the specifiers of one projection (namely SpecAgr$_v$P, if not also SpecLink$_v$P), suggesting a further need for multiple specifiers. Overall, then, it seems undesirable, stipulatory, and unnecessarily complicated to attempt to employ any notion of Remnant Movement in the analysis of V2.

4.2 Head Movement and Multiple Specifiers

Having argued that Remnant Movement cannot play a role, I shall now show how we can go about deriving V2 in the structure proposed here, employing standard head movement of the verb, along with multiple specifiers on the phase edge projections.

The main assumption, then, is that the finite verb, in V2 clauses, must move up through the following positions: V^0 to v^0 to Agrv^0 to Agr$_T{}^0$ to, ultimately, Link$_T{}^0$. V^0 to v^0 is a stan-

dard assumption. v^0 to Agr^0 is also fairly standard, and, since I have two levels of Agr above the VP, it is clear why the verb must move through both heads. The final landing site of the verb in ${\text{Link}_T}^0$, however, is somewhat less obviously motivated and may, unfortunately, require stipulating at this point. It would, however, follow the standard V2 analyses (Holmberg and Platzack, 1995) in taking the final landing site of the verb to be the highest functional head, and, furthermore, it would also be a consequence of an extension of Rizzi's (1997) *wh*-criterion, whereby he assumes that if you move something to a specifier position, something else has to be moved to the head.[5]

The second assumption I will make is that the phase edge projections – LinkP and AgrP – may have multiple specifiers.[6] As already mentioned, Richards (2001) assumes that his Agr∀P must have multiple specifiers in order to allow for all arguments to move through and check their features. Since I also need to be able to move all of my arguments through AgrP, I must conclude the same. Naturally, then, following from the simplest, symmetrical and non-stipulatory approach, if AgrP may have multiple specifiers, so may LinkP. Indeed, this would seem both required and semantically motivated at the DP and vP levels, where, for example, as we have seen, it is clear that more than one element out of a given numeration may be contrastively d-linked, and thus require movement through Link_vP, and similarly, at the DP level, both the determiner and/or quantifier and/or adjective and/or noun may be marked as [+Link], and thus move to/through $\text{SpecLink}_D\text{P}$.

The obvious question that arises now, then, is how we make sure we still only get one element preverbally in V2 situations. Here, I turn firstly to the observation made by Norbert Hornstein (Epstein and Hornstein (1999), Hornstein (2000), and in person at the LSA Summer Institute course LSA100, summer 2005), that 'two specifiers of the same projection are equidistant to the same target'. That is, in the case of multiple specifiers, each specifier is taken to be the same distance from its head. We have already assumed that the one head can check the required features on multiple elements occurring in its multiple specifiers, namely one Link head can check the [+Link] feature on multiple elements, and one Agr head can check and provide matching agreement on, for example, a row of adjectives. More importantly, however, this notion of equidistance implies that the head sees its multiple specifiers as if they were part of one *unit* (I refrain from using the term *constituent* here, although it may well boil down to the same thing). This is a semantically well-founded assumption, of course, since all of the elements share the same feature, and, in the case of its being a [+Link] feature, marking selection from a poset, it means that the multiple elements in the multiple specifiers of LinkP form this poset together. Take, for example, the question and answer pair in (41):

[5]Petra Sleeman (p.c.), for example, likewise assumes that the finite verb, *sont*, in French sentences such as (1), moves to Top^0, since the subject, *ils*, is in SpecTopP, the adjective, *rares*, is in SpecFocP, and the backgrounded complement, *à avoir des enfants*, is in the lower SpecTopP:

(1) Ils sont rares à avoir des enfants
they are rare to have some children

[6]Christensen (2005, 101) introduces a *Constraint on Multiple Specifiers*, which states that only strong phase heads can license multiple specifiers. He suggests that this is subject to parametric variation, with cross-linguistic differences as to whether or not C^0 is classified as 'strong'. I assume that no such constraint is necessary, since LinkP and AgrP always have multiple specifiers (cf. ensuing discussion as to how we are still able to account for V2), but that only these phase edge projections are able to have multiple specifiers, specifically *because* they are phase edge projections, and thus lexical and functional projections within the phase domains – i.e. NP, DP, VP, vP, TP, and so on – may not license multiple specifiers. Again, this is a feature contributing to the definition of what constitutes the edge of the phase.

(41) a. Was hat er wem gegeben?
What has he whom given?

b. Er hat dem Jungen den Apfel gegeben
He has the-DAT boy-DAT the-ACC apple-ACC given

Here, it is clear that the contrastive focus poset is one consisting of both beneficiary and gift, namely both *dem Jungen* and *den Apfel* are contrastively d-linked, and, as such, both move to SpecLink$_v$P, where they form a unit, since it is together that they contrast with the other possible alternative pairs constituting the poset, e.g.:

(42) {{dem Jungen, den Apfel}
{dem Jungen, die Banane}
{dem Jungen, die Orange}
{dem Jungen, die Trauben}
{dem Mädchen, den Apfel}
{dem Mädchen, die Banane}
{dem Mädchen, die Orange}
{dem Mädchen, die Trauben}
...}

What is important, however, is that whilst these multiple specifiers indeed do form a unit, the internal structure of this unit has to remain visible and accessible (i.e. not frozen) to higher levels of the derivation, since we still need to be able to (sub-)extract elements and move them up alone. That is, only a subset of the SpecLink$_D$P elements may end up moving up to SpecLink$_v$P, and, likewise, only a subset of these will continue up to SpecLink$_T$P (cf. §4.4). The reason for this accessibility is clear: active features are still at large, namely [+Link$_v$] and [+Link$_T$]. Regarding the latter, Øystein Nilsen[7] claims that there can only ever be one switch topic (which I have already argued to be akin to our aboutness topic, namely the [+Link$_T$] element) per sentence, regardless of how many other 'topical' elements there might be (e.g. weak pronouns, etc.). As such, he imposes a logical semantic restriction on why we can only ever have one element in SpecLink$_T$P, thus necessarily giving us V2 in languages such as German. Nevertheless, even in such a strict V2 language as German, there are some instances of what appear to be V3 constructions (cf. especially Müller (2003, 2005) and references therein). This is actually predicted by the approach just outlined, and §4.3 offers a brief excursus on this point, before we show some sample derivations for German (§4.4), and consider the possible ways in which to maintain this approach, without losing the empirical coverage offered by Rizzi (1997) for Italian (§4.5).

[7]Again, at the DGfS/GLOW Summer School, Stuttgart, August 2006.

4.3 Instances of Apparent V3 in German

Following the approach just outlined, then, it ought to be possible to obtain apparent V3, in languages such as German, if there is more than one element marked as [+Link$_T$]. Accordingly, this does seem to be the case. That is, we occasionally do get more than one preverbal element, if and only if these elements together form a unit which constitutes the aboutness topic, thus also sharing a poset.[8] Whilst this will then appear to be a non V2 situation, if we take the multiple preverbal specifiers to build one unit, we see that actually the need for the verb to be the second 'idea' still holds. Consider, for example, the following variation on (41) above:

(43) a. WAS hat er WEM gegeben?
WHAT has he WHOM given?

b. HANS den APFEL hat er gegeben
HANS the APPLE has he given

Whilst some speakers seem to reject this outright, others are more or less happy to accept it. And the versions in (44), where the contrastivity of the fronted element is made explicit, seem to be fine all round:[9][10]

(44) a. HANS den APFEL und MARIA die BIRNE hat er gegeben
HANS the APPLE and MARIA the PEAR has he given

b. HANS einen APFEL hat er gegeben, nicht FRITZ eine BIRNE
HANS an APPLE has he given, not FRITZ a PEAR

What is important here, then, is that the multiple preverbal elements *must* form one interpretational unit, and *must*, therefore, share both a poset and the same information structural interpretation. That is, they must both constitute part of the aboutness topic. For this reason, whilst multiple specifiers of one and the same projection do not cause a problem for us, since they are able to be interpreted together as one unit, specifiers of different focus and topic projections, à la Rizzi (1997), would not be amenable to such an interpretation, and are therefore not possible preverbally in V2 configurations.

[8] cf. also Haider (1982) who proposes that the LF projection of the Vorfeld must consist of only one LF constituent, and that the operator in COMP is able to bind only one variable, hence the difference in grammaticality between (2a), where the *wh*-words bind one variable, and (2b), where there remain two variables:

(1) Gestern am Strand hat sie sich mit ihm getroffen
Yesterday on-the beach has she REFL with him met

(2) a. Wann und wo hat sie sich mit ihm getroffen?
When and where has she REFL with him met?

b. Wann und wer hat sie sich mit ihm getroffen?
When and who has she REFL with him met?

[9] Thanks especially to Sabine Mohr and Peter Öhl for pointing out these alternatives to me.

[10] It ought also to be noted that this cannot happen if we only have a transitive verb. i.e. both arguments cannot precede the verb if there are only two arguments in total, even if they are both [+Link]:

(1) a. HANS den APFEL hat er gegeben

b. *ICH den APFEL habe gegessen

I have nothing further to say about this observation at this point, however.

4.4 Some Sample Derivations

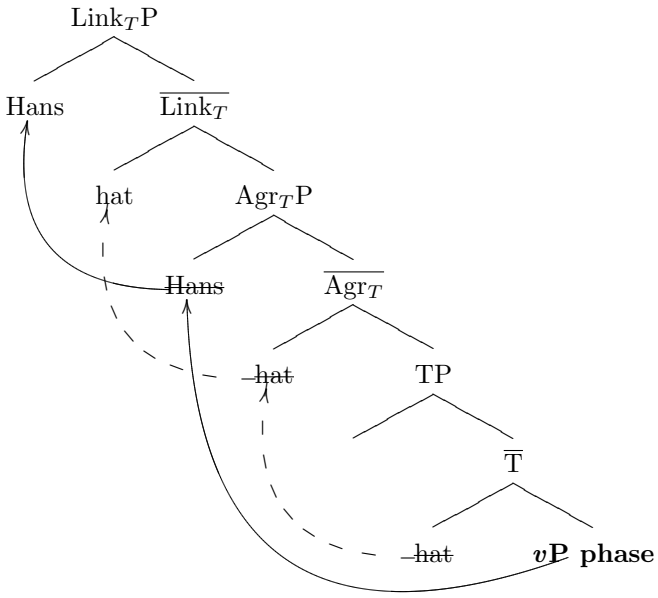
Now that we have outlined the way in which the derivations ought to take place, namely as involving movement through the heads and multiple specifiers of the phase peripheral Link and Agr positions, let's look at a couple of simple trees to demonstrate.[11]

Firstly, let's return to the basic V2 examples given in examples (4) and (5), repeated here with their respective trees:

(45) Was hat Hans gegessen?

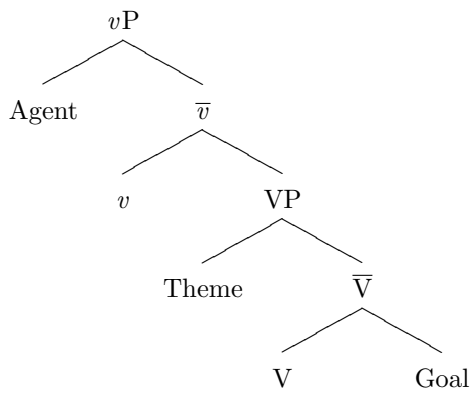
a. Hans hat den APFEL gegessen

i. TP phase:

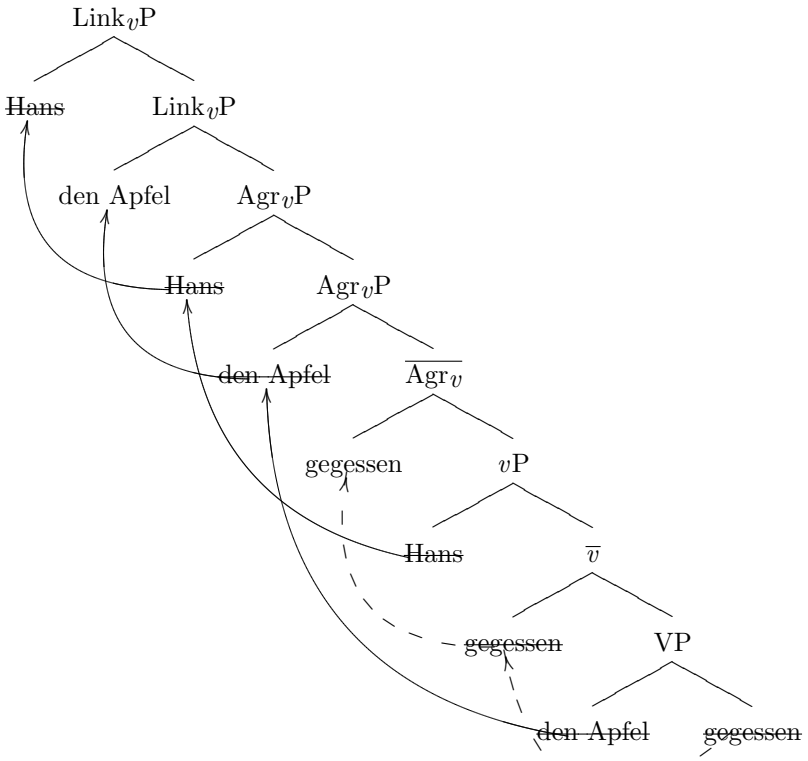


[11] I adopt throughout the base merger structure of UTAH, following Baker (1988a,b, 1996) and Ramchand's (2003) First Phase Syntax, namely:

(1)

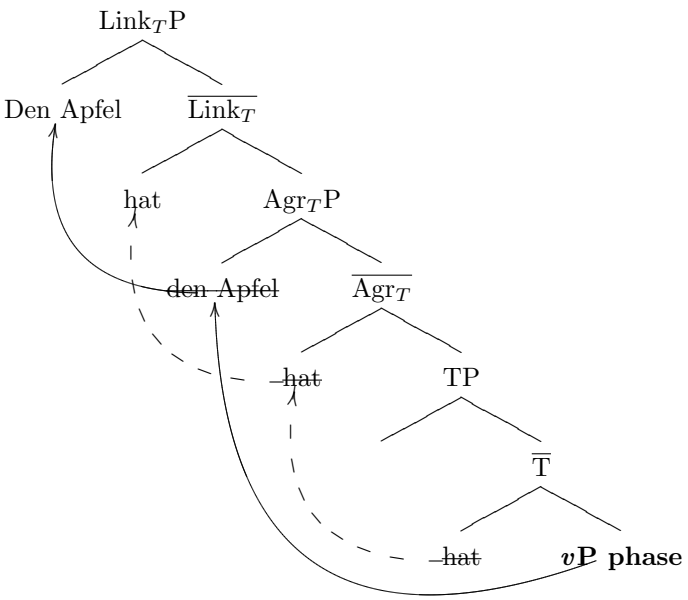


ii. vP phase:

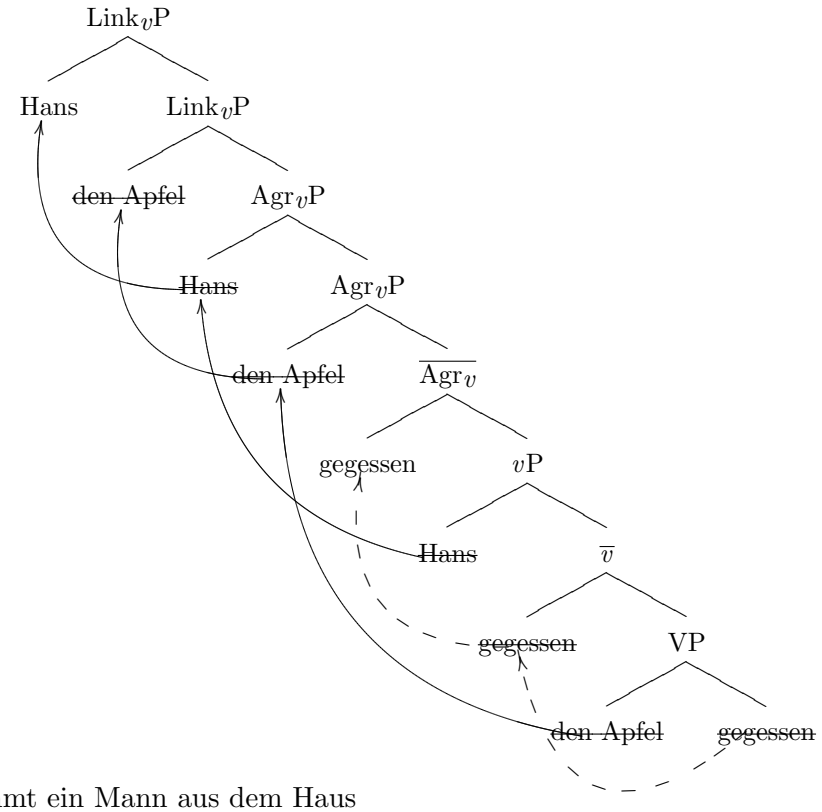


b. Den APFEL hat Hans gegessen

i. TP phase:

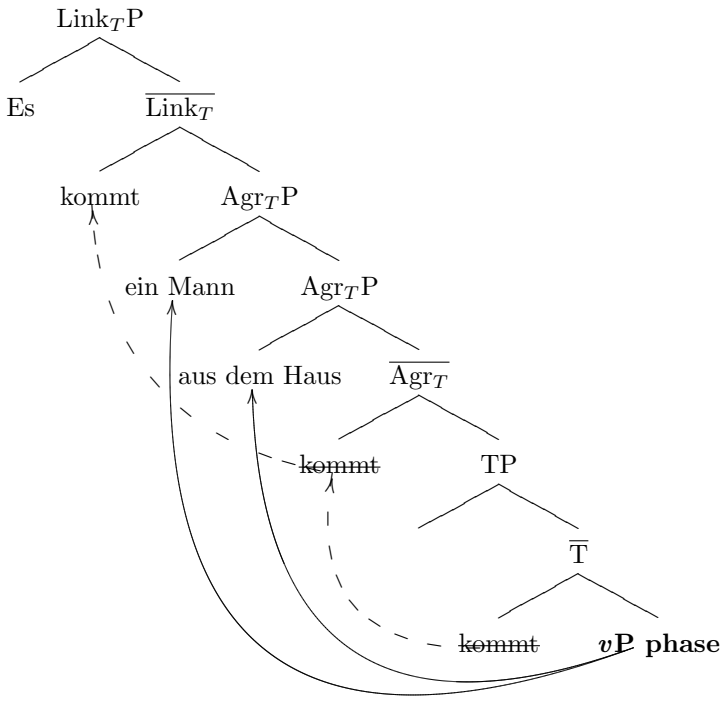


ii. vP phase:

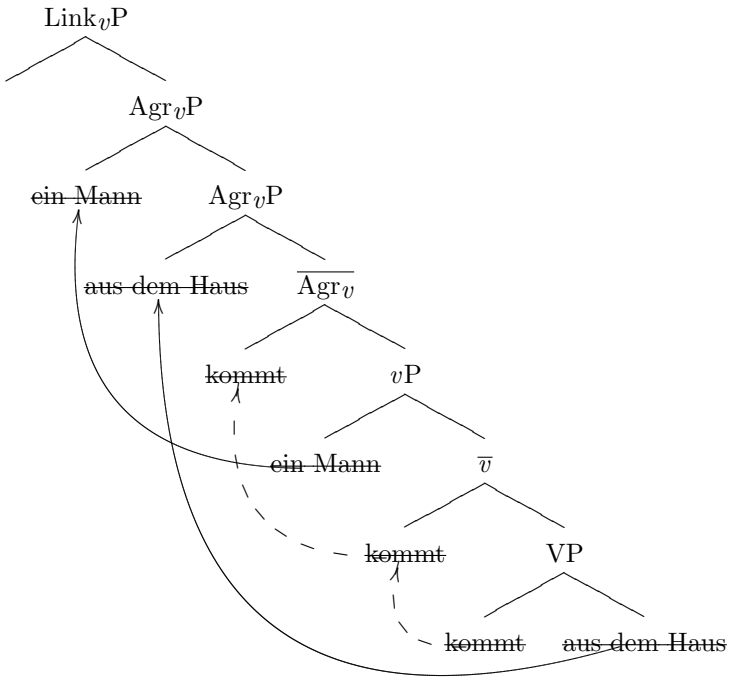


(46) Es kommt ein Mann aus dem Haus

a. TP phase:

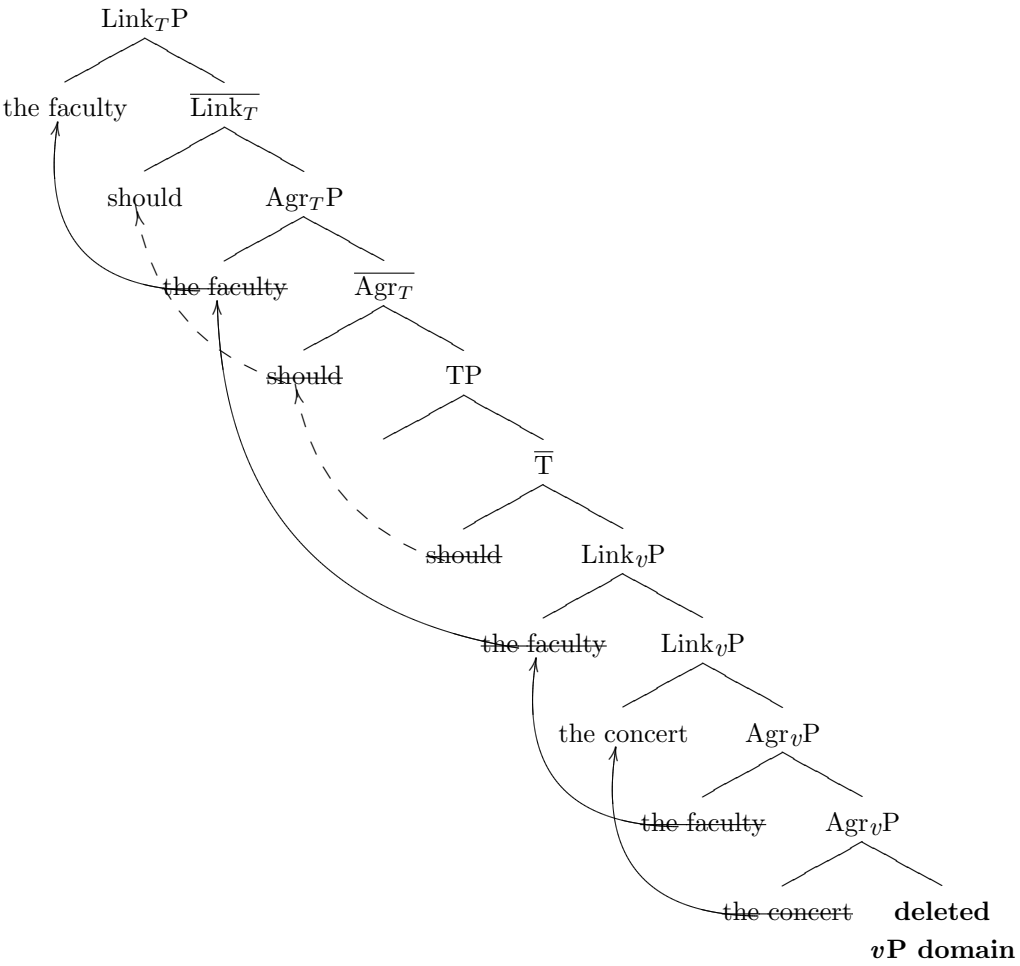


b. vP phase:

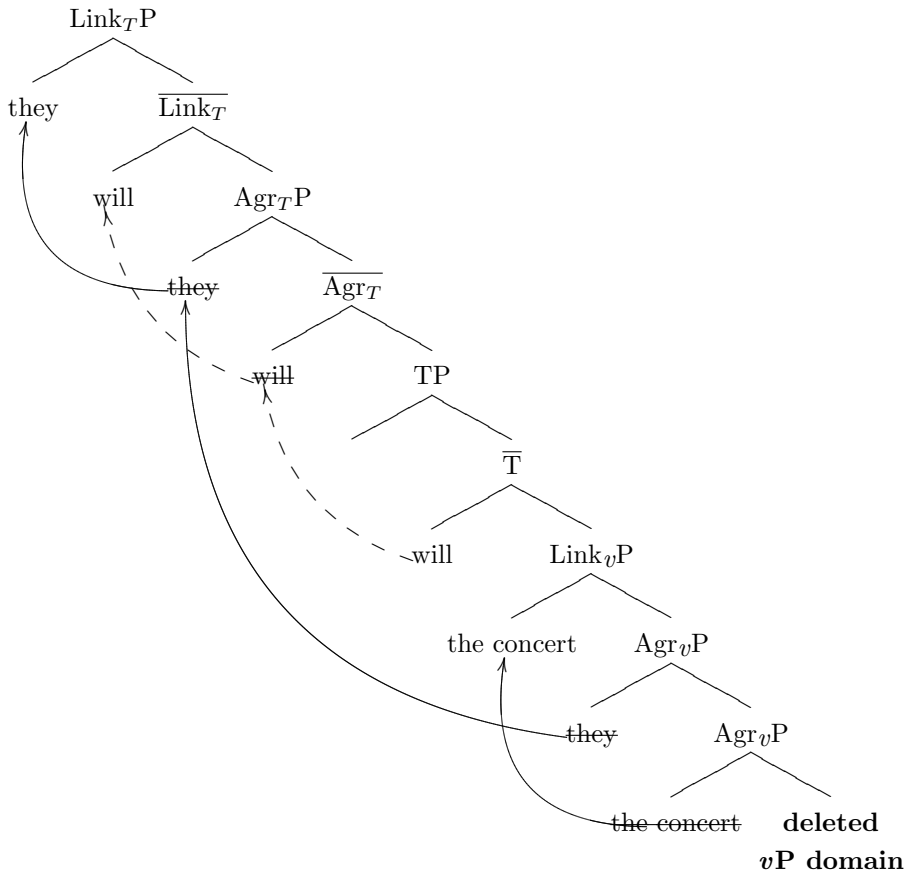


These trees basically show that differences in surface word order can be brought about solely within the TP phase, as a result of different elements being marked as [+Link$_T$]/[+aboutness], even if they are, in these cases, both marked as [+Link$_v$]/[+contrastive d-linking]. However, as we saw for the Pseudogapping examples in §3.1, there may also be differences at the vP level, depending on whether the surface subject is contrastive or not. Examples (18a) and (18b) are repeated here with their respective trees:

(47) a. ... the faculty should the concert (contrastive subject)



b. ... they will the concert (non-contrastive subject)



Finally, as we saw in §3.2, sometimes surface word order can be defined already as low as within the DP phase, as was the case with split DP constructions. The full derivation for (26a) is shown now in (48):[12]

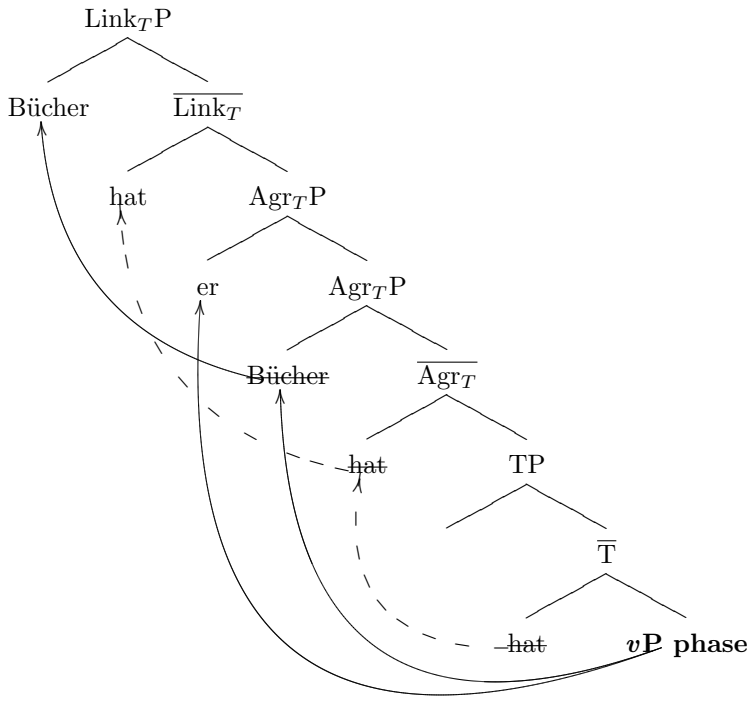
[12]I should, at this point, mention an issue that I shall leave open for future research, namely the surface position of the past participle, *gekauft* in this split DP derivation. In (48), I simply leave it sitting in V^0, which is not where I believe it should end up. Presumably, it should move at least to Agr$_v{}^0$ in order to check for its agreement features. It does, necessarily, however, need to remain in sentence-final position. Accordingly, the same question will hold for the position of the finite verb in verb final (subordinate) clauses. In such cases, I am tempted to believe that the finite verb still moves up to Link$_T{}^0$, and that everything else precedes it in the specifiers of Link$_T$P, possibly even joined later by the finite verb itself, since, to some extent at least, in a clause such as (1), the entire proposition *er Bücher gekauft hat* can be argued to act together as one unit, and constitute something like an aboutness topic:

(1) dass er Bücher gekauft hat
that he books bought has

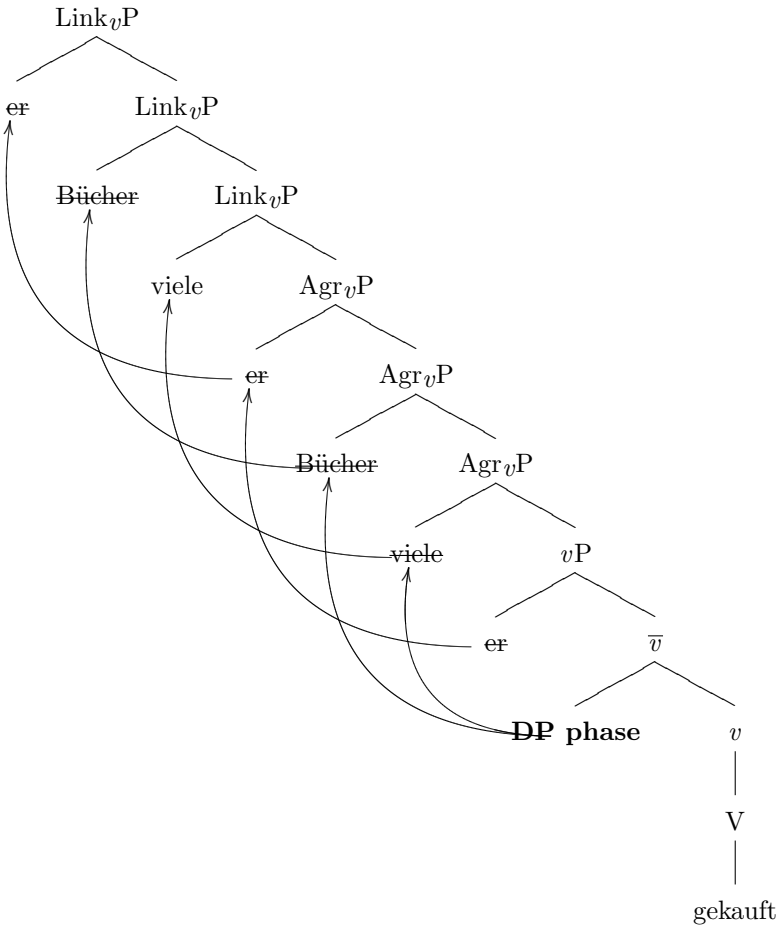
However, I shall leave further discussion of this point for another paper. cf. §5, however, with regard to where the complementiser *dass* in clauses such as (1) should be merged.

(48) Bücher hat er viele gekauft

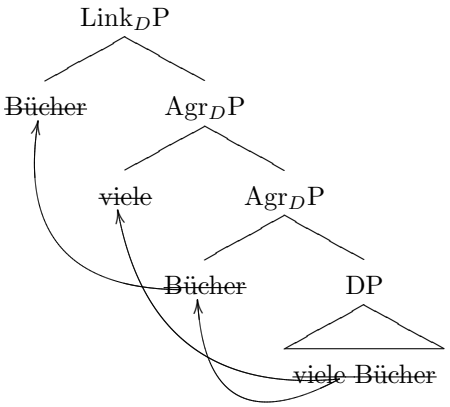
a. TP phase:



b. vP phase:



c. DP phase:



4.5 Non V2 Languages such as Italian

I now turn to the question of how to account for the less restricted sentence-initial structure in non V2 languages, such as Italian. That is, if we reject Rizzi's (1997) fine left peripheral structure – ForceP > TopP* > FocP > TopP* > FinP – in favour of one with just the specifiers of LinkP occurring preverbally, how do we explain the empirical data he puts forward in (49)

to show multiple preverbal topic and focus elements?[13]

(49) a. Credo che a Gianni, QUESTO, domani, gli dovremmo dire
I-believe that to Gianni, THIS, tomorrow, him we-should say
b. Credo che domani, QUESTO, a Gianni, gli dovremmo dire
c. Credo che domani, a Gianni, QUESTO gli dovremmo dire
d. Credo che a Gianni, domani, QUESTO gli dovremmo dire
e. Credo che QUESTO, a Gianni, domani, gli dovremmo dire
f. Credo che QUESTO, domani, a Gianni, gli dovremmo dire
(Rizzi, 1997, 296, e.g.37)

(50) Il libro, a Gianni, domani, glielo darò senz'altro
The book, to Gianni, tomorrow, him-it I-will-give without-doubt
(Rizzi, 1997, 290, e.g.21)

Clearly, whilst in cases just with multiple topics, as in (50), it might be argued that these form a unit, together constituting the aboutness topic element, it is clear that the three elements in the examples in (49) – namely, *a Gianni*, *QUESTO*, and *domani* – are not able to do so, given their different information structural interpretations (as both topics and focus). It is, however, further important to point out that whilst topic can recurse freely, it is, nevertheless, only possible to have one instance of preverbal focus, as shown in (51). Moreover, this focus must be interpreted as contrastive:

(51) *A GIANNI IL LIBRO darò (non a Piero, l'articolo)
*TO GIANNI THE BOOK I-will-give (not to Piero, the-article)
(Rizzi, 1997, 290, e.g.22)

Additionally, differences in behaviour should be noted between the sentence-initial topic and focus elements. Whilst the former may involve a resumptive clitic within the comment structure (and necessarily do if the topicalised element is the direct object), focalised elements are inconsistent with such a clitic (Cinque, 1990, 63):

(52) a. Il tuo libro, lo ho comprato
The your book, it I bought
b. *Il tuo libro, ho comprato
The your book, I bought

(53) a. *IL TUO LIBRO lo ho comprato (non il suo)
*THE YOUR BOOK it I bought (not the his)
b. IL TUO LIBRO ho comprato (non il suo)
THE YOUR BOOK I bought (not the his)
(Rizzi, 1997, 289, e.g.15–16)

As can also be seen from the above examples, the topic, but not the focus constructions, further give rise to the so-called 'comma-intonation'. Both of these observations together make the topic constructions in Italian (and, more generally, in Romance), analogous to what Cinque (1990) terms Clitic Left Dislocation (CLLD). As Rizzi (1997, 293–294) points out, this construction may also be found in Germanic languages, where a so-called D-pronoun is overtly realised as an anaphoric operator, referring back to the topic:

[13]Capitals denote focus; the other preverbal elements are taken to be topics.

(54) Den Hans, den kenne ich seit langem
The Hans, him know I since long
(Rizzi, 1997, 294, e.g.31)

Crucially, though, this is generally taken to constitute a different type of construction from the ones we have been discussing so far in this paper. Namely, given both the comma intonation and the resumptive clitic/D-pronoun, one might want to reason that the topicalised element is external to the matrix clause. This is a point I shall pick up on in the next and final section (§5).

Firstly, however, there is another important point to be made with regard to Rizzi's structure, and that is that Poletto (2000, 2005) actually disputes the fact that there is a lower TopP occurring below FocP. She gives a number of arguments (which I shall not go into here), and basically concludes that these lower elements must also be interpreted as foci. Furthermore, she argues that sentence-initial adverbs, such as *domani* in (49) above, should be taken to be scene setting or framing, and thus also to potentially occur outside of/before the standard Vorfeld. Again, this is something I shall return to in §5. For now, however, the crucial point is that we may, even in Italian, only be dealing with the ordering TopP(*) > FocP, and not TopP* > FocP > TopP*.

If this is indeed the case, there are a number of potential ways in which this might be captured, two of which I shall briefly outline now. Firstly, one might want to consider adopting something akin to the Feature Scattering Principle (55) proposed by Giorgi and Pianesi (1997):

(55) Feature Scattering Principle:
Each feature can head a projection
(Giorgi and Pianesi, 1997, 15)

This is claimed to be a cross-linguistically varying parameter, so that, in some languages, features scatter and project independent heads, whereas, in other languages, they fuse and are all checked in multiple specifiers of the one head. Following this, one might assume that, whilst for German, we have fusion, for non V2 languages, such as Italian, we have scattering, and thus the LinkP projects an independent head along with each specifier, thus being able to check not only for aboutness topic, but also for additional contrastive foci. This would, however, require something extra to be said about what extra features (besides the simple [+Link$_T$]) can be checked in this position, thus complicating the situation somewhat.

A second, and perhaps preferable approach, might be to assume that the verb head itself, in Italian, does not move up as far as Link$_T{}^0$, but only as far as Agr$_T{}^0$, or even only as far as one of these projections in the vP phase periphery. This would then maintain the old intuition re. V to T vs. T to C movement as a cross-linguistic parameter. I think this is perhaps the most promising approach, but, at this stage, I leave it aside for further research.

5 CP recursion or a TP phase?

So, finally, having motivated the recursive information structural periphery at the top of each phase, discussed the derivational process itself, and considered possible cross-linguistic alternatives to account for word order difference between Germanic and Romance languages, let me now return to the question of what actually is the highest phase – i.e. is it CP, as is usually claimed, or is it TP? To this end, I turn firstly to discussions of CP recursion by, amongst

others, Iatridou and Kroch (1992) and Tallerman (1996).

Iatridou and Kroch (1992) argue for CP recursion to be allowed in certain instances in some of the languages which allow embedded V2, namely Frisian and Danish, but notably not Yiddish or Icelandic. They explain its licensing with respect to the higher CP needing to be transparent and thus deletable at LF (i.e. not *wh*, negative, or irrealis, since these are contentful). Tallerman (1996) also employs the idea of recursive CPs. In her case it is in order to explain what is usually known as the 'mixed' construction, in Welsh, which she refers to as the 'cleft' construction, the major function of which, as exemplified in (56a), is to focus the fronted constituent, although it has also taken on the function of NP topicalisation since the demise of the Middle Welsh so-called 'abnormal' construction exemplified in (56b). Two important features, which show that this cannot simply be a form of V2 construction, are that this type of fronting can occur in subordinate clauses, and is, in fact, typically preceded by a complementiser (in embedded clauses as in (56c), but also, historically, in main clauses), and also that the negator is placed before the fronted constituent as in (56d):

(56) a. i. Myfi a gafodd anrheg
me PRT got.3SG gift
'It was me that got a gift'

ii. Y dynion a werthodd y ci
the men PRT sold.3SG the dog
'It was the men who sold the dog'

b. i. Myfi a gefais anrheg
me PRT got.1SG gift
'I got a gift'

ii. Y dynion a werthasant y ci
the men PRT sold.3PL the dog
'The men sold the dog'

c. Mi wn i mai [$_{PP}$yng Nghymru] y mae Gwent
PRT know I PRT [$_{PP}$in Wales] PRT is Gwent
'I know that it's in Wales that Gwent is'

d. Nid/dim y dyn a ddaeth
NEG the man COMP came.3SG
'It wasn't the man who came'

The question she raises then is, if the complementiser is taken to be in the C-slot, where is the fronted material? It cannot now be in SpecCP, since it follows, rather than precedes, the complementiser. This is actually a general, cross-linguistic problem, applying to English too, as can be seen in (57):

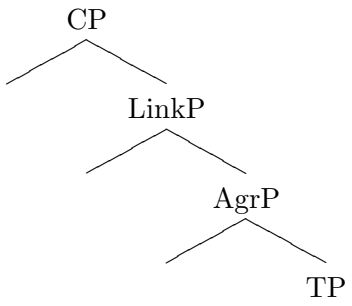
(57) a. I knew that Irish, she couldn't speak

b. *I knew Irish, that she couldn't speak
(Tallerman, 1996, 106)

Tallerman, like Iatridou and Kroch, thus assumes CP-recursion so that the complementiser may take another CP as its complement. But, again, this has to be subject to a large number of stipulative conditions, and each of the two CPs would have to have quite distinct properties, so as to prevent unlimited recursion. Instead, then, I return to the assumption made by the

likes of Baltin (1982) and Lasnik and Saito (1992), that we ought to treat topicalisation as adjunction to IP – or, rather, TP. That is, rather than taking our information structural layer, which includes the landing site for fronting, to either occur above CP, i.e. taking CP to be the phase, or to constitute a split CP, à la Rizzi, we ought, instead, to assume it to occur above TP, which then must be assumed to be the phase. CP, in the cases where we need it (i.e. when there is a complementiser, or such like), may then be merged on top of this periphery as a completely separate projection. This is then analogous to Rizzi's ForceP, occurring above his Topic and Focus phrases. We thus have the structure shown in (58):

(58)



This, then, does not contradict the points made by Chomsky (2000, 2001a,b, 2005) and Richards (2006), who argue against the TP being able to constitute the phase, since, crucially, we still have the biphrasal edge above the TP itself, and so both ϕ features and edge features have their respective positions in which to be checked.

Furthermore, if we take the optional extra CP itself to be a phase, then the extra phasal periphery it would bring with it now also offers a potential position for the topicalised elements in the Germanic D-pronoun constructions such as (54), repeated here as (59):

(59) Den Hans, den kenne ich seit langem
The Hans, him know I since long

One might also wish to extend the argument to propose that sentence-initial topics in Italian, when they precede preverbal focused elements taken to sit in SpecLink_TP, and/or in the CLLD constructions (recall (52) and (53)), may also occur in this CP phase periphery, explaining both the resumptive clitic and the comma intonation. The features of this periphery could then be posited to be something akin to scene setting or framing, thus also offering a place for sentence-initial adverbs, both of the *domani* type, as well as those in the following German examples (Meinunger, 2004):

(60) a. Ehrlich (gesagt), ich bin von dir total enttäuscht
honestly (said), I am of you total disappointed
'Honestly, I am completely disappointed in you'

b. Nebenbei (bemerkt), ich habe mir die Sache ganz anders vorgestellt
next-to-it (remarked), I have me the thing wholly different imagined
'By the way: I had a completely different idea about all this'

This would then pick up on Rizzi's (1997) suggestion that such topic constructions might, in languages such as English, involve a null operator or complementiser. Clearly, however, further research on this point is required, especially since an overt complementiser may also precede these elements (recall (49)).

6 Conclusion

I hope, in the course of this paper, to have provided evidence from numerous peoples' work, as well as from my own, to show the need for a recursive information structural layer both in place of a split CP (but not instead of CP itself, which is then merged, as and when needed, above this layer), as well as lower down in the clause – namely above vP and DP, two further phase levels. I also hope to have shown that whilst it would be most ideal and minimalist to assume only one projection in this layer, it is, in fact, necessary to allow for two – one to carry edge features, namely LinkP, and one for agreement purposes – namely AgrP. I then proposed that the edge features might be captured cross-phasally by a general [+Link] feature, which, on the whole, marks selection from a poset, but which acquires a more specific flavour at each phase level, namely [+aboutness] at the TP, [+contrastive d-linking] at the vP, and [+partitive] at the DP level. Finally, with respect to the actual derivations to and through these phase edge peripheries, I enumerated a number of problems with Remnant Movement approaches, and argued instead that an analysis with multiple specifiers is able to logically account for the data and its restrictions, particularly in V2 languages, but speculatively also cross-linguistically.

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