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# The asymmetry of short and long wh-extraction in German

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**THE ASYMMETRY OF SHORT AND LONG  
WH-EXTRACTION IN GERMAN<sup>1</sup>**

**ABSTRACT**

When subject to short extraction, *wh*-movement in German neither triggers a Weak Crossover effect nor does it show any Superiority effect. This situation changes if *wh*-movement undergoes long extraction. In this case, Weak Crossover effects as well as Superiority effects can be observed. This paper proposes a minimalist analysis of German *wh*-constructions which is designed to explain these properties. By exploring various constructions which involve the left periphery of the clause and making use of multiple features associated with *wh*-elements, it is shown that short extraction and long extraction target different positions in the left periphery.

**KEYWORDS**

German, long *wh*-movement, short *wh*-movement, topicalization, operator positions, superiority, weak crossover.

## 1. Topicalization in German

In German, the dislocation operation called “topicalization” is not associated with specific informational properties but can affect all sorts of XPs. Movement of such an XP to the left of the fronted finite verb exhibits the properties which are typically associated with A'-movement. It licenses parasitic gaps as in (1), is subject to locality restrictions as in (2)-(4), shows reconstruction effects as in (5) and (6) and does not allow anaphoric binding as can be seen from (7) and (8).

- (1) Den Patienten<sub>i</sub> hat der Arzt [ohne e<sub>i</sub> anzuschauen] t<sub>i</sub> untersucht.  
the patient-ACC has the doctor without look-at examined  
'The doctor has examined the patient without looking at him.'
- (2) Den Studenten<sub>i</sub> glaubt Hans [dass Maria t<sub>i</sub> liebt].  
the student-ACC believes Hans that Maria loves  
'Hans believes that Maria loves the student.'
- (3) \*Den Studenten<sub>i</sub> hat Hans gefragt, [wer t<sub>i</sub> gesehen hat].  
the student-ACC has Hans asked who seen has
- (4) \*Den Studenten<sub>i</sub> hat Maria [den Versuch [t<sub>i</sub> zu küssen]] unternommen.  
the student-ACC has Maria the attempt to kiss undertaken
- (5) An seinen<sub>i</sub> ersten Geburtstag erinnert sich vermutlich keiner<sub>i</sub>.  
(of) his first birthday remembers (himself) presumably nobody  
'Presumably nobody remembers his first birthday.'
- (6) [Ein Auto für sich<sub>i</sub> allein] wünscht sich jeder  
[a car for himself]-ACC wants every  
achtzehnjährige Junge<sub>i</sub>.  
18 year old boy  
'Every 18 year old boy wants a car for himself.'
- (7) \*Den Studenten<sub>i</sub> hat [der Professor von sich<sub>i</sub>] unterstützt.  
the student-ACC has the professor-NOM of himself supported  
'\*The professor of himself supported the student.'
- (8) \*Den Studenten<sub>i</sub> hätte [eine Wohnung für sich<sub>i</sub>]  
the student-ACC would-have an apartment for himself  
ein Vermögen gekostet.  
a fortune cost  
'\*An apartment for himself would have cost the student a fortune.'

However, topicalization in German lacks one crucial property which in many cases co-occurs with the A'-properties above: it does not trigger Weak Crossover effects, as illustrated in (9).

- (9) Den Studenten<sub>i</sub> hat seine<sub>i</sub> Mutter finanziell unterstützt.  
 the student-ACC has his mother-NOM financially supported

Since Weak Crossover effects are considered to provide us with the crucial diagnostic for operator movement (Lasnik & Stowell 1991; Rizzi 1997), we can conclude from the absence of these effects in the case of German topicalization that the target position of topicalization in German is an A'-position which is not an operator position.

According to Rizzi's (1997) model of the left clausal periphery there are at least two different kinds of A'-positions in the left periphery which are not operator positions: the specifier of TopP and the specifier of FinP. While the former is commonly analyzed as the target position of left-dislocated elements in German, the latter is taken to host the resumptive D-pronoun the presence of which is characteristic of the left dislocation construction (Grewendorf 2002a). As far as German topicalization is concerned, Cardinaletti (1986) has suggested analyzing this instance of leftward movement along the same lines as left dislocation, with the topicalized element located in SpecTopP, and SpecFinP occupied by an empty anaphoric operator<sup>2</sup>.

There are several problems with this analysis of topicalization. First, while left-dislocated elements are "inherent" topics which have to be D-linked, there is no such restriction on elements to be topicalized. Secondly, there are distributional differences between left-dislocated and topicalized elements. Certain expressions such as quantifiers, anaphors, indefinite pronouns, constituents of NP and remnant verbal projections can be topicalized but are not allowed to undergo left dislocation in German (see Grewendorf 2002a). The examples in (10) illustrate this difference in the case of quantifiers:

- (10) a. Niemanden hat er gesehen.  
 nobody-ACC has he seen  
 b. \*Niemanden, den hat er gesehen.  
 nobody-ACC him has he seen  
 c. Jeden hat er gekannt.  
 everybody-ACC has he known  
 d. \*Jeden, den hat er gekannt.  
 everybody-ACC him has he known

These facts seem to suggest that the target position of topicalization in German is SpecFinP rather than SpecTopP. In fact, the observation that topicalization is not associated with any specific informational properties may lead us to conclude that its crucial function can be seen as satisfaction of the EPP. Since according to Haegeman (1996) and Roberts (2001), movement to SpecFinP is triggered by the EPP, I would like to assume that topicalization in German is movement to SpecFinP.

## 2. Properties of *wh*-movement in German

Turning to *wh*-movement in German we can make the interesting observation that like ordinary topicalization, *wh*-movement displays all the properties typical of A'-movement but, at least as far as short *wh*-movement is concerned, lacks Weak Crossover as well as Superiority effects. The absence of Weak Crossover and Superiority effects in the case of short *wh*-extraction is shown by the examples in (11) and (12), respectively:

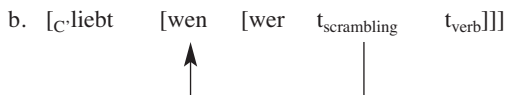
- (11) a. Wem<sub>i</sub> hat seine<sub>i</sub> Tante einen US-Aufenthalt finanziert?  
 who-DAT has his aunt a US-stay paid  
 b. Welchem Studenten<sub>i</sub> hat sein<sub>i</sub> Vater in der  
 which student-DAT has his father-NOM during the  
 Vorlesung Brötchen gebracht?  
 lecture rolls brought
- (12) a. Wen liebt wer?  
 who-ACC loves who-NOM  
 b. Wem hat wer geholfen?  
 who-DAT has who-NOM helped

Unlike short extraction, *wh*-movement in German exhibits Weak Crossover and Superiority effects in the matrix clause in the case of long extraction from an embedded clause, as can be seen from the examples in (13) and (14):

- (13) a. \*Welchen Studenten<sub>i</sub> hat sein<sub>i</sub> Vater angenommen [t<sub>i</sub>  
 which student-ACC has his father assumed  
 liebe Maria t<sub>i</sub>]?  
 loves Maria-NOM  
 b. Welchen Studenten<sub>i</sub> glaubt Maria [t<sub>i</sub> hat seine<sub>i</sub>  
 which student thinks Maria has his  
 Frau t<sub>i</sub> verlassen?  
 wife-NOM left
- (14) \*Wen<sub>i</sub> glaubt wer [dass Hans t<sub>i</sub> gesehen hat]?  
 who-ACC believes who-NOM that Hans-NOM seen has

Fanselow (1997) has related this asymmetrical behavior of German short and long *wh*-extraction to the fact that German is a scrambling language. His account proceeds from the assumption that prior to *wh*-movement, *wh*-elements can undergo scrambling to a pre-subject position. According to this approach, (15b) represents an intermediate stage in the derivation of a sentence like (15a):

- (15) a. Wen liebt wer?  
 who-ACC loves who-NOM



Since Fanselow considers scrambling to be an instance of A-movement, the intermediate step represented in (15b) explains the absence of a Weak Crossover effect in the case of short *wh*-extraction. (15b) also accounts for the lack of a Superiority effect since the scrambled *wh*-element in pre-subject position is the candidate closest to the target position of *wh*-movement. Furthermore, the fact that German does not allow long scrambling from finite clauses provides Fanselow with a simple and elegant account for the presence of Weak Crossover and Superiority effects in the case of long *wh*-extraction.

Unfortunately, there are several problems with this account. First, as pointed out by Fanselow himself (Fanselow 1990), scrambling of *wh*-elements is not as “free” as his analysis requires, *cf.* the contrast in (16):

- (16) a. Wie hat der Mann gestern was repariert?  
 how has the man-NOM yesterday what fixed  
 b. \*Wie hat was der Mann gestern repariert?  
 how has what the man yesterday fixed

Secondly, as shown in Grewendorf & Sabel (1999) and contrary to what is claimed by Fanselow, German scrambling does not exhibit A-properties. This is different from scrambling in Japanese, where the short instance of this kind of movement can in fact be shown to be A-movement. If we take the possibility of A-binding by the moved element as the crucial diagnostic for A-movement, then the contrast between the Japanese examples in (17) and the German examples in (18) clearly shows that Japanese scrambling constitutes an instance of A-movement while German scrambling does not.

- (17) a. ?\*[[Otagaij-no sensei]-ga [karera-j-o hihansita]] (koto)  
 each other-GEN teacher-NOM they-ACC criticized fact  
 (Each other’s teachers criticized them)  
 b. ?[Karera-j-o [[otagaij-no sensei]-ga  
 they-ACC each other-GEN teacher-NOM  
 [ t hihansita]]] (koto)  
 criticized fact  
 (Them, each other’s teachers criticized) (Saito 1992: 74f.)
- (18) a. \*weil [ein Kollege von sich] zweifellos  
 since [a colleague of himself]-NOM undoubtedly  
 den Professorj in guter Erinnerung behalten hat  
 the Professor-ACC in good memory kept has  
 ‘\*since a colleague of himself undoubtedly remembers the professor well.’

- b. \*weil *den Professor<sub>i</sub>* [ein Kollege von sich<sub>i</sub>]  
 since the professor-ACC [a colleague of himself]-NOM  
*zweifellos t* in guter Erinnerung behalten hat  
 undoubtedly in good memory kept has
- c. weil der Professor<sub>i</sub> [einen Kollegen von sich<sub>i</sub>]  
 since the professor-NOM [a colleague of himself]-ACC  
*zweifellos* in guter Erinnerung behalten hat  
 undoubtedly in good memory kept has  
 ‘since the professor undoubtedly remembers a colleague of his well.’

Finally, there are languages such as Bulgarian, Japanese and Turkish which have scrambling but nevertheless show Superiority effects, which makes it rather doubtful that the lack of these effects can be attributed to the possibility of scrambling.

Let us therefore return to the observations made in (11)-(14) and look for an alternative explanation. These observations suggest that short *wh*-movement in German behaves exactly like topicalization. We can therefore conclude that as was the case with topicalization, overt short *wh*-extraction in German targets an A'-position which is not an operator position, and we can assume that this position is SpecFinP. The requirement that *wh*-elements occupy an operator position at the interface must then be met by covert *wh*-movement to the specifier of the focus projection. Overt long *wh*-extraction differs from short *wh*-extraction in that for this case we are forced to assume that *wh*-elements land in an operator position in the overt syntax. Should these general theoretical conclusions turn out to be well-established on independent grounds, we would in fact have an explanation for the strange asymmetry displayed by short and long *wh*-extraction in German. Let us therefore set out to elaborate on a theoretical implementation for these general conclusions.

### 3. An account of short *wh*-extraction in German

Following standard assumptions (Chomsky 2000, 2001) I will assume that *wh*-elements bear an interpretable Q-feature coupled with an activating uninterpretable feature in the sense of Chomsky (2001). I further assume that *wh*-elements are endowed with an operator feature, which I take to be a focus feature (following Sabel 2000a) that likewise co-occurs with an activating uninterpretable feature.

The latter assumption receives empirical support from the observation that in numerous languages (e.g. Austronesian languages such as Indonesian/Malay (Saddy 1990; Cole & Hermon 1997), Tagalog, Toba Batak, Malagasy (Sabel 2000b), Celtic languages such as Welsh (Roberts 2001), and many African languages (Clements 1984; Biloa 1995; Sabel 1998)), overt *wh*-movement is accompanied by the presence of focus particles<sup>3</sup>. This can be

illustrated by the following examples from the African language Tuki, where unlike *wh*-elements in situ, overtly moved *wh*-elements are followed by the focus particle *owu* (Bilola 1995; Sabel 1998):

- (19) a. Puta o-endam n(a) adongo ni?  
 Puta SP-goes in town when  
 ‘When is Puta going into town?’  
 b. Ni owu Puta o-endam n(a) adongo?  
 when FOC Puta SP-goes in town  
 ‘When is Puta going into town?’ (Bilola 1995; Sabel 1998)

Moreover, there is evidence that in languages such as Somali, Chadic, Aghem, Basque, Hungarian, Haida, Omaha, Quechua, Korean and Greek, focused elements occupy the same position as *wh*-elements (Kiss 1995: 23).

As for the features of the functional heads in the left periphery of the clause, I would like to suggest that as a result of verb movement to Fin, there is an uninterpretable Q-feature present in the inflectional head of FinP, relying on the standard assumption (Rizzi 1996) that in *wh*-questions, the T-head is endowed with an uninterpretable interrogative feature. Furthermore, I adopt Rizzi’s (1997) analysis of the FocP, according to which the head of the focus projection bears a focus feature.

My crucial assumption with respect to German is that neither the uninterpretable focus feature in Foc nor the uninterpretable Q-feature in Fin triggers overt fronting of *wh*-elements in German. Traditionally speaking, this assumption would have been expressed by saying that both features are “weak”. In minimalist terms it could be expressed by saying that only the Fin-head is endowed with an EPP-feature<sup>4</sup>. The “weak” nature of the focus feature can be seen from the fact that in German, there is no obligatory overt preposing of focused constituents. The assumption that it is not the Q-feature in Fin that triggers overt movement to SpecFinP can receive support from the following consideration, which shows that the opposite assumption would lead to undesirable consequences in the framework of Chomsky (2001).

If the uninterpretable Q-feature in Fin were to be deleted as a consequence of triggering overt *wh*-fronting, the uninterpretable Q-feature of the fronted *wh*-element could not undergo deletion since the feature set in Fin would not be complete (it would lack the focus feature). However, since the feature set in Foc would also be incomplete due to the absence of a Q-feature, the uninterpretable features of the *wh*-element could not be eliminated in SpecFocP either. On the other hand, should we assume that the Q-feature in Fin triggers overt *wh*-fronting but cannot be eliminated since SpecFinP is not an operator position, we would wrongly predict short *wh*-movement to show a Superiority effect.



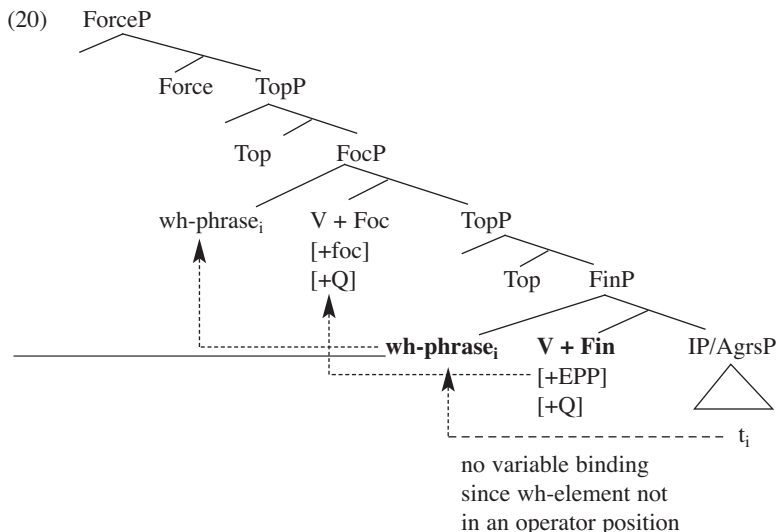
Haegeman (1996) and Roberts (2001) propose that XP-movement to SpecFinP, which is obligatory in main clauses of a verb second language like German, is triggered by the EPP as some sort of unspecified peripheral checking which is induced by the finite verb as the highest V-related head and which can, in principle, be achieved by any XP<sup>5</sup>. If this is the case, the question then arises as to why in the presence of a *wh*-element, it is the *wh*-element that has to fulfil this requirement.

My answer to this question has to do with the presence of the Q-feature in Fin. Although this feature is not responsible for the filling of SpecFinP, its presence in Fin has the consequence that the EPP-requirement of Fin, *i.e.* obligatory topicalization, must be satisfied by the *wh*-element due to a condition that matching effects have to be maximized (Chomsky 2001). Hence, if a functional head is endowed with an EPP-feature as well as with another feature F, the EPP has to be fulfilled by a phrase which also bears the feature F in order for the matching effect to be maximized.

Note, however, that topicalizing the *wh*-element to SpecFinP does not lead to the deletion of the uninterpretable Q-feature of Fin since SpecFinP is not an operator position, and an operator feature can only be deleted in a local configuration with an appropriate element in an operator position. This is a consequence of the *Wh-criterion* in much the same way as this criterion prevents a *wh*-subject from checking its Q-feature in the subject position (despite the presence of an uninterpretable Q-feature in the corresponding functional head).

The checking of the Q-feature of the *wh*-element therefore proceeds via covert movement of the verb (bearing Q of Fin) from Fin to Foc, where it picks up the uninterpretable focus feature of Foc. The *wh*-element then undergoes covert movement to SpecFocP, where it “checks” its Q-feature and focus feature, with deletion of the uninterpretable Q-feature and focus feature in Foc as well as the uninterpretable features of the *wh*-element itself.

The basic tenets of this analysis are represented by the structure in (20) (boldface marks the visible elements of chains)<sup>6</sup>:



Interesting empirical evidence for the claim that the short-extracted *wh*-element occupies SpecFinP rather than SpecFocP in the overt syntax of German can be gained from the so-called “focus construction” in Bavarian in which a focused constituent is extracted from a clause fronted to SpecFinP as in (21) (Merkle 1975):

- (21) a. [<sub>α</sub> Des Bier wenn i no trink], [<sub>Fin'</sub> bin i glei bsuffa]  
 the beer if I more drink am I instantly drunk  
 ‘If I drink one more beer, I will get drunk instantly.’
- b. \*<sub>[FinP]</sub> I bin [<sub>α</sub> des Bier wenn i no drink] glei bsuffa]  
 I am the beer if I more drink instantly drunk
- c. <sub>[FinP]</sub> I bin [wenn i des Bier no drink] glei bsuffa]  
 I am if I this beer more drink instantly drunk
- d. \*<sub>[FinP]</sub> I bin glei bsuffa] [<sub>α</sub> des Bier wenn I no drink]  
 I am instantly drunk the beer if I more drink
- e. <sub>[FinP]</sub> I bin glei bsuffa] [wenn i des Bier no drink]  
 I am instantly drunk if I the beer more drink

There is evidence from focus constructions with a parasitic gap that the fronted element *Des Bier* (‘the beer’) in (21a) has undergone movement to a focus position in the matrix clause (Stechow & Sternefeld 1988; Weiß 1998):

- (22) [<sub>FocP</sub> Den<sub>i</sub> [<sub>FinP</sub> [<sub>α</sub> wenn i t<sub>i</sub> dawisch] [<sub>Fin'</sub> daschlog I e<sub>i</sub>]]]  
 him if I catch kill I  
 ‘If I catch him, I will kill him.’

If the focused constituent *Den* (‘him’) did not move to the matrix clause, it would not c-command the parasitic gap (or its empty operator). The evidence

for the claim that a short-extracted *wh*-element occupies SpecFinP has to do with the fact that the fronted clause in the focus construction can also be located in SpecTopP with another fronted element in SpecFinP, as shown by (23a); however, this option is incompatible with the presence of a parasitic gap as can be seen from (23b):

- (23) a. Den wenn i dawisch [<sub>FinP</sub> **dann** gfrei i mi bsonders]  
 him if I catch then am-happy I very  
 ‘If I catch him then I will be very happy.’  
 b. \*<sub>[FocP]Den<sub>i</sub> [<sub>TopP</sub>[ wenn i t<sub>i</sub> dawisch] [<sub>FinP</sub> **dann** daschlog i e<sub>i</sub>]]]</sub>  
 him if I catch then kill I  
 ‘If I catch him, then I will kill him.’

The same pattern as in (23) can be observed if the additional element preceding the matrix verb is a *wh*-element as in (24b) and (24c):

- (24) a. [<sub>FocP</sub> Den Hans<sub>i</sub> [<sub>FinP</sub> [wenn er t<sub>i</sub> trifft] [<sub>Fin</sub> lod er e<sub>i</sub>  
 the Hans if he meets invites he  
 oiwei zu am Bier ei]]].  
 always for a beer PRT  
 b. [<sub>FocP</sub> Den Hans<sub>i</sub> [<sub>TopP</sub> [wenn er t<sub>i</sub> trifft] [<sub>α</sub> **wann**  
 the Hans if he meets when  
 lod a'n<sub>i</sub> zu am Bier ei]]]?  
 invites he-him for a beer PRT  
 c. \*<sub>[FocP]Den Hans<sub>i</sub> [<sub>TopP</sub> [wenn er t<sub>i</sub> trifft] [<sub>α</sub> **wann**  
 the Hans if he meets when  
 lod a e<sub>i</sub> zu am Bier ei]]]]]?  
 invites he for a beer PRT</sub>

If it is true that the ungrammaticality of (23b) is due to the fact that SpecFinP of the matrix clause is filled and is thus no longer available for the empty operator of the parasitic gap, we can assume that the *wh*-element in (24c) also occupies SpecFinP of the matrix clause, yielding the same effect as in (23b). If these considerations are on the right track and lend support to the analysis suggested in (20), then we have found a straightforward account for the lack of Weak Crossover and Superiority effects in the case of short *wh*-movement in German. Let us now turn to long extraction.

#### 4. An account of long *wh*-extraction in German

Let us now turn to long *wh*-extraction from an embedded clause and first consider movement out of verb second complements as illustrated in (25):

- (25) Wen<sub>i</sub> glaubt Hans [ t<sub>i</sub> liebt Maria t<sub>i</sub>]?  
 who-ACC thinks Hans loves Maria  
 ‘Who does Hans think Maria loves?’

Recall the crucial properties of long *wh*-extraction that we wish to account for. As we saw in section 2, unlike short *wh*-extraction, long *wh*-extraction exhibits Weak Crossover as well as Superiority effects. A crucial assumption in my explanation of this difference has to do with percolation of operator features. We saw in the preceding section that *wh*-elements are endowed with a focus feature and that this feature enters into the operation *Agree* (Chomsky 2000, 2001) with a focus feature of the focus head in the left periphery of the target interrogative clause. The crucial assumption that I would like to make about the operator feature of the focus head is not only familiar from common analyses of successive cyclic movement, a similar assumption is also argued for in Grewendorf & Sabel's (1999) account of scrambling. I will assume that the focus feature of the highest focus head is also present in every lower focus head that is located between the former and the operator element that functions as its goal. The mechanism of this percolation process is indicated in (26):

- (26)  $[_{\text{FocP1}} \text{Foc}_{[+\text{foc}]} [_{\text{FocP2}} \text{Foc}_{[+\text{foc}]} [_{\text{FocP3}} \text{Foc}_{[+\text{foc}]} [_{\text{FinP}} \text{Fin } \text{wh-phrase}_{[+\text{foc}]}]]]]]$
- 

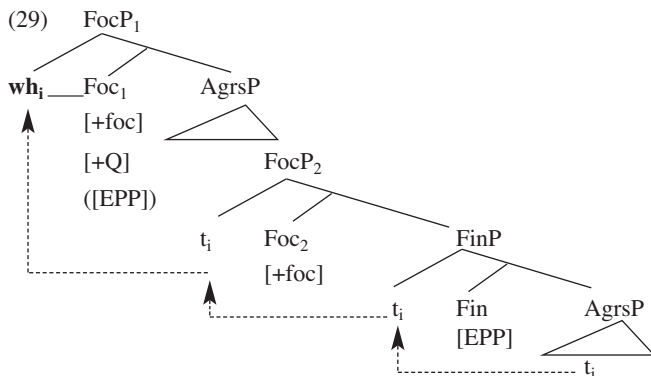
Apart from the conceptual support for this assumption, which derives from the idea of successive cyclic movement, there is also empirical evidence from languages in which the focus feature is morphologically visible. For example, in Bahasa Indonesia (overt) *wh*-extraction co-occurs with the presence of a focus particle in the head of FocP, as can be seen from (27):

- (27) Siapa **yang** Sally cintai?  
 who foc Sally love  
 'Who does Sally love?' (Saddy 1990)

Interestingly, when *wh*-extraction proceeds from an embedded non-interrogative clause into an interrogative matrix clause, the focus particle not only appears in the matrix clause, it is also present in the left periphery of the embedded clause, as shown in (28):

- (28)  $[_{\text{CP}} \text{Siapa}_i \text{ yang Bill harap } [_{\text{CP}} \text{ yang } t_i \text{ akan membeli baju untuknya}]]]$   
 who foc Bill hopes foc will buy clothes for-him  
 'Who does Bill hope will buy clothes for him?' (Saddy 1990)

On the basis of the assumption of the percolation of operator features combined with the assignment of Q-and EPP-features suggested in the preceding section, I will argue for a derivation of long *wh*-extraction that looks like (29):



The crucial question that arises with respect to (29) is why overt *wh*-movement targets SpecFocP rather than SpecFinP as is assumed for short *wh*-extraction. To answer this question let us consider the relevant steps of this movement process. In the embedded clause, the *wh*-element first has to move to SpecFinP for reasons of EPP, as is familiar from our analysis of short *wh*-extraction. Bearing a focus feature it then has to pass through the specifier position of the embedded FocP due to the presence of the (“weak”) operator feature [+foc] in the embedded Foc head<sup>7</sup>. While the latter feature is eliminated as a consequence of *Agree*, the [+foc] feature of the *wh*-phrase (*i.e.* the activating uninterpretable feature) cannot be similarly eliminated. The reason is that deletion takes place in an “all or none” fashion but the embedded Foc does not have a complete set of the relevant features since it lacks a Q-feature.

The fact that the operator, although “activated” in the embedded clause, is not checked there allows us to correctly predict the absence of Weak Crossover effects in the embedded clause, since Weak Crossover is only triggered by an operator which is in fact checked in an operator position. On the other hand, the fact that the *wh*-element passes through an operator position has the crucial effect that it can no longer move into a non-operator position but has to target another operator position in order to get rid of its uninterpretable features<sup>8</sup>. We can say that having been located in an operator position its status as an operator is “activated”.

Note that there is interesting empirical evidence for the claim that SpecFocP of the matrix clause is the only available target of the *wh*-element. This evidence has to do with a difference between long topicalization and long *wh*-movement. In the former case, there is no focus feature involved, so we can assume that long topicalization need not pass through the embedded SpecFocP but proceeds cyclically from SpecFinP to SpecFinP. Consequently, we can predict that unlike long *wh*-movement, long topicalization should not

show any Weak Crossover effect in the matrix clause. This prediction is in fact borne out, as can be seen from the contrast between (30) and (31):

- (30) a. ?[Den Studenten<sub>i</sub>] glaubt seine<sub>i</sub> Mutter [\_\_ wird  
the student-ACC thinks his mother will  
Maria t<sub>i</sub> heiraten].  
Maria-NOM marry
- b. ?[Der Student<sub>i</sub>] glaubt seine<sub>i</sub> Mutter [\_\_ hat  
the student-NOM thinks his mother has  
t<sub>i</sub> Maria geheiratet].  
Maria-ACC married
- (31) a. \*Wen<sub>i</sub> glaubt seine<sub>i</sub> Mutter [\_\_ wird Maria t<sub>i</sub> heiraten]?  
who-ACC thinks his mother will Maria-NOM marry
- b. \*Wer<sub>i</sub> glaubt seine<sub>i</sub> Mutter [\_\_ hat t<sub>i</sub> Maria geheiratet]?  
who-NOM thinks his mother has Maria-ACC married

In the minimalist theory, overt movement to the left periphery of the clause is triggered by the EPP. In accordance with minimalist assumptions we assumed in the last section that overt *wh*-movement in German targets SpecFinP for reasons of the EPP. An EPP-feature should therefore also be present in the matrix clause of interrogative sentences in which long extraction is observed. Since the next possible landing site of a *wh*-element which has moved to the embedded SpecFocP can only be an operator position in the matrix clause, i.e. SpecFocP, the EPP in the left periphery of the next higher clause can only be checked in SpecFocP.

The important thing that should be noted at this point is the following. If FinP of the matrix interrogative clause were projected, its specifier could neither be occupied by the *wh*-element of the embedded clause nor by any non-*wh* XP. The former case would constitute an instance of “improper movement”, and a non-*wh* XP would not match the Q-feature of the matrix Fin. As a consequence, there is no reason for the matrix FinP to be projected. We can therefore assume that properties of matrix Fin (EPP) are “taken over” by the head of the operator projection FocP<sup>9</sup>. The Q-feature is transferred to Foc by the finite verb, which can satisfy its needs in this position.

The idea that the features of Fin can be taken over by the head of FocP or, alternatively, that a strong operator head in some way “absorbs” the EPP receives empirical support from *wh*-constructions in a language like Kashmiri. Kashmiri is a verb second language with overt focus movement to the left periphery of the clause. The head of FocP obviously takes on the function of the EPP since there is no indication for the presence of a Fin projection: *Wh*-elements and finite verbs move overtly to the focus projection, which can be seen from the fact that all *wh*-questions show Weak Crossover effects:

- (32) a. Raath kemyi<sub>i</sub> kor temsinz<sub>i</sub> maajyi phoon?  
 yesterday who did his mother phone  
 'Who called his mother yesterday?'
- b. \*Raath kemyis<sub>i</sub> kor temsinz<sub>i</sub> maajyi t<sub>i</sub> phoon?  
 yesterday whom did his mother phone  
 'Who did his mother call yesterday?' (Bhatt 1999 : 58f)

That the position preceding the finite verb is indeed a focus position in Kashmiri is shown by the fact that only a focused XP is allowed to occupy this position:

- (33) a. CON KALAM dyut rameshan shiilayi.  
 your pen gave Ramesh Sheila  
 'It was your pen that Ramesh gave Sheila.'
- b. \*Con kalam<sub>i</sub> dyut rameshan shiilayi su<sub>i</sub>.  
 your pen gave Ramesh Sheila that  
 'As for your pen, Ramesh gave it to Sheila.' (Bhatt 1999 : 109f)

Whenever a focused XP co-occurs with a topic in the left periphery, the latter has to precede the former:

- (34) Con kalam<sub>i</sub> RAMESHAN dyut shiilayi su<sub>i</sub>.  
 your pen Ramesh gave Sheila that  
 'As for your pen, it was Ramesh who gave it to Sheila.'  
 (Bhatt 1999 : 110)

The left periphery of Kashmiri thus exhibits the pattern in (35), which is also familiar from languages such as Hungarian:

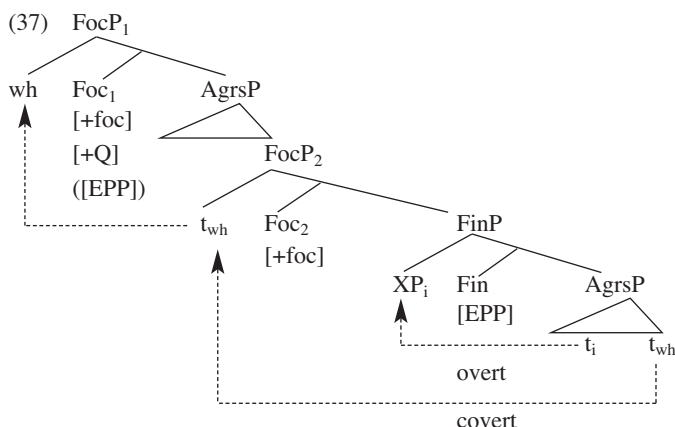
- (35) Topic + Focus + V<sub>fin</sub>

Our claim that the overt position of the fronted *wh*-element in Kashmiri is in fact SpecFocP and that there is no room for a FinP is then confirmed by examples such as (36):

- (36) a. \*Kyaa tem khyav raath?  
 what he ate yesterday  
 'What did he eat yesterday?'
- b. \*Kyaa raath khyav tem?  
 what yesterday ate he
- c. Rameshan kyaa dyutnay tse?  
 Ramesh what gave you  
 'As for Ramesh, what is it that he gave to you?' (Bhatt 1999 :107ff)

Note that the *wh*-element in (36c) cannot have passed through a Fin projection below the final position of the finite verb since after satisfying the EPP in SpecFinP no further trigger for overt movement of this element would be available.

A crucial question about the derivation in (29) has not been answered yet. Why is it that it is specifically the *wh*-element that overtly raises from the embedded clause? After all, the requirements of the EPP in the embedded Fin could in principle be satisfied by any other XP since the embedded Fin is not endowed with a Q-feature. Thus the derivation that should be ruled out is the one depicted in (37), where an XP of the embedded clause overtly moves to the embedded SpecFinP in order to satisfy the EPP and the *wh*-element covertly moves to the matrix clause in order to check its interrogative feature.



Let us assume that as suggested above, some parametric property of the EPP requires an overt element to satisfy its needs. Then we could say about (37) that the embedded *wh*-element cannot move overtly to the matrix clause since the XP in the embedded SpecFinP creates a “topic island”, which cannot be violated in German by overt movement. The interrogative features of the matrix Foc could then only be checked by covert movement of the *wh*-element (or by entering into *Agree* with the features of the latter), with the consequence that the EPP in the matrix clause would have to be satisfied by an overt XP of the matrix clause. However, the latter is not possible due to the fact that either there is no Fin in the matrix clause, as we argued above, or should there still be one, it would bear a Q-feature. Since features have to be checked in an “all or none” fashion, in either case it is only in terms of overt movement of the *wh*-element that the requirements of the heads in question can be satisfied.

Summarizing so far, the derivation suggested in (29) provides us with a simple account for the observation that long *wh*-extraction in German shows Weak Crossover effects as well as Superiority effects. The former is a consequence of the fact that the target position of long *wh*-extraction is an operator position, namely SpecFocP; the latter results from the corresponding fact that it is an operator feature that “looks for” an appropriate goal rather



than a bare EPP-feature. Consequently, the element to be attracted has to be the closest goal that satisfies the operator and non-operator features of Foc.

Finally, I would like to briefly deal with long *wh*-extraction from verb final clauses, *i.e.* from clauses introduced by a complementizer. According to Haegeman (1996), the EPP effect is cancelled in *that*-clauses due to the nominal nature of the complementizer. If this assumption is on the right track, we will have to conclude that unlike a verb second clause, where the embedded Fin bears an EPP feature, an embedded *that*-clause does not require the extracted *wh*-element to pass through the embedded SpecFinP; rather, the *wh* moves directly to the embedded SpecFocP. Successive cyclic movement from embedded SpecFocP to SpecFocP of the matrix clause would then imply that long *wh*-extraction from a *that*-clause exhibits Weak Crossover effects in the matrix clause. This implication accords with the facts:

- (38) \*Hans wollte wissen, <sub>[[FocP wen<sub>i</sub>]]</sub> seine<sub>i</sub> Mutter  
 Hans wanted to-know who-ACC his mother  
 glaubt [<sub>t<sub>i</sub></sub> dass Maria <sub>t<sub>i</sub></sub> geküsst hat]]  
 believes that Maria-NOM kissed has

The question is whether direct movement of the *wh*-element to the embedded SpecFocP would not force us to predict that the embedded clause likewise displays Weak Crossover effects, which conflicts with the facts, as shown by the grammaticality of (39):

- (39) Welchen Studenten<sub>i</sub> glaubt Maria [ <sub>t<sub>i</sub></sub> dass seine<sub>i</sub>  
 which student-ACC thinks Maria-NOM that his  
 Frau <sub>t<sub>i</sub></sub> verlassen hat]?  
 wife-NOM left has

The answer to this question is that the presence of an operator in an operator position is not sufficient for it to trigger a Weak Crossover effect. The operator has to get rid of its uninterpretable operator feature in order to display operator properties and trigger the Weak Crossover effect. In other words, in order to trigger operator effects its operator status has to be activated, and this is achieved through the deletion of its uninterpretable operator feature due to the operation *Agree*.

The situation is slightly different with embedded *wh*-questions. Given that the EPP-feature is a V-related feature, we can assume the presence of such a feature in the Fin-head of embedded *wh*-questions since the selected Q-feature turns the embedded Fin into a verbal head, with the consequence that it bears an EPP-feature and triggers overt movement to SpecFinP. In exact analogy to what we found with short *wh*-movement in direct questions we then correctly predict the absence of Weak Crossover effects in indirect *wh*-questions.

## NOTES

1. The material of this paper was presented at the workshop *Sentence architecture – CP: the fine structure of the domain and the relations CP-IP*, which was organized by the *Programme 4 de la Fédération “Typologie et universaux linguistiques”* of the CNRS, Paris. I am grateful to the organizer Hans-Georg Obenauer as well as to the other participants for constructive discussion and valuable suggestions. I would also like to thank Rachel Hendery for helpful comments on an earlier version.
2. Koster (1978) and Zwart (1998) have suggested a similar analysis for left dislocation in Dutch.
3. According to an account of Romance *wh*-questions suggested by Poletto/Pollock (2000), *wh*-elements have to “check” three different features in the left periphery of the clause.
4. For reasons of simplicity, I will assume here that in general the EPP triggers overt movement and that covert movement (if it exists at all) has to do with some parametric property of the EPP (see also Grewendorf 2002b). This could be considered as an alternative to analyzing overt and covert movement in terms of pronunciation rules, as suggested in Pesetsky (2000).
5. Haegeman (1996) claims that insertion of a complementizer cancels the EPP-effect due to the nominal nature of the complementizer.
6. We can assume that the trace in SpecFinP left behind by covert movement of the *wh*-element either counts as a variable itself or transmits variable status to the lowest trace of the A'-chain. An assumption along these lines is independently required for the phenomenon of *wh*-doubling in languages like Bellunese and Monnese if both copies of a doubled *wh*-element are subject to movement, as in the analysis of Poletto/Pollock (2000).
7. The fact that overt movement “checks” a “weak” feature on its way is familiar from *wh*-movement in English where the *wh*-object passes through SpecAgroP.
8. Traditionally speaking, movement to a non-operator position would constitute an instance of “improper movement”.
9. A rather more traditional way of putting this would be to say that the focus feature of the next higher focus head turns into a “strong” feature and makes the presence of an EPP feature in the matrix clause superfluous.

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#### RÉSUMÉ

En cas d'extraction à courte distance, le mouvement-*wh* ne déclenche, en allemand, ni effet de croisement faible ni effet de supériorité. Cette situation change lorsque le mouvement-*wh* se fait à longue distance: des effets de croisement aussi bien que de supériorité sont alors observés. Cet article propose une analyse minimaliste des constructions-*wh* en allemand qui a pour but d'expliquer ces propriétés. En examinant différentes constructions qui mettent en jeu la périphérie gauche, et en utilisant des traits multiples associés aux éléments-*wh*, nous montrons que le mouvement court et le mouvement long visent des positions différentes dans la périphérie gauche.

#### MOTS-CLÉS

Allemand, mouvement-*wh* long, mouvement-*wh* court, topicalisation, positions d'opérateur, supériorité, croisement faible.