Journal of Germanic Linguistics **13.1** (2001):5–38.

Wh-Expletives and Secondary Predication: German Partial *Wh*-Movement Reconsidered

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In German, complex *wh*-interrogatives can optionally be formed by inserting the 3rd person neuter *wh*-pronoun *was* in the matrix [Spec, CP] position instead of long-distance *wh*-raising. It is generally assumed that "expletive" *was* serves as a placeholder for a contentful *wh*-expression lower down in the sentence that substitutes for it at the level of semantic interpretation. It can be shown, however, that the putative *wh*-expletive *was* in German is actually a CP-proform base-generated in matrix object position, and that it is not subject to expletive replacement at LF. As an alternative to previous accounts, I propose a complex predicate analysis of the German *was … w* construction according to which *was* is a θ-marked object pronoun capable of licensing a predicative CP in V-complement position. This analysis is consistent with Rothstein's (1995) claim that true object expletives do not exist.*

1. Introduction.

As an alternative to long-distance *wh*-extraction, German permits a construction that involves short *wh*-movement plus insertion of the 3rd person neuter interrogative pronoun *was* 'what' in the CP specifier position of the matrix clause, as in 1b.

(1) a. **Wen**$_i$ glaubst du [$_{CP}$ **t**$_i$**'** dass Maria **t**$_i$ getroffen hat] ?
who think you that M. met has
b. **Was** glaubst du [$_{CP}$ **wen**$_i$ Maria **t**$_i$ getroffen hat] ?
what think you whom M. met has
'Who do you think Maria has met?'

* I am grateful to Martin Atkinson, Harald Clahsen, Roger Hawkins, Jamal Ouhalla, Andrew Radford, the audience at the LAGB Spring Meeting at University College London (April 2000), and two anonymous *JGL* reviewers for helpful comments and suggestions.

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The presence of the "dummy" *wh*-pronoun *was* in 1b marks the matrix clause as a direct question and appears to extend the scope of the contentful *wh*-expression in the subordinate clause, rendering the two sentences virtually synonymous (Van Riemsdijk 1983). In colloquial German, option 1b tends to be preferred over 1a. Similar "scope marking" constructions are attested in a number of other languages including Frisian (Hiemstra 1986), Hungarian (Kiss 1991, Horvath 1997), Romani (McDaniel 1989), Hindi (Mahajan 1990, Dayal 1994), Bengali (Bayer 1996), and Arabic (Wahba 1991, Ouhalla 1996).[1] The fact that the two clauses in 1b are not separated by an intonation break and that the subordinate clause exhibits V-final order shows that we are dealing with a true embedding structure rather than with a parenthetical construction along the lines of *What do you think—who did Mary meet?*

Only *wh*-interrogatives may be used in the *was ... w* construction; yes/no interrogatives, on the other hand, are not possible:

(2) ***Was** glaubst du ob Maria Mel Gibson getroffen hat?
what think you if M. Mel Gibson met has

There is no restriction on the type or number of contentful *wh*-expressions that appear in the subordinate clause:

(3) **Was** glaubst du **wann** Hans an **welcher Universität** studiert hat?
what think you when H. at which university studied has
'When do you think Hans studied at which university?'
(Dayal 1994:140)

In multiple embedding structures, each intermediate clause must normally be introduced by a separate instance of *was*:

(4) **Was** glaubst du **was** Peter sagt **wen** Maria getroffen hat?
what think you what P. says whom M. met has
'Who do you think Peter says Maria has met?'

Some speakers (including myself), however, also permit intermediate clauses introduced by the declarative complementizer *dass* 'that'

[1] This is not to imply that the "scope marking" strategies found in these languages all represent the same syntactic phenomenon (see, e.g., Beck and Berman 2000, Cheng 2000, Dayal 2000, Mahajan 2000, McDaniel 1989, Horvath 1997, 2000, or Sabel 2000 for some discussion of crosslinguistic variation in this area).

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(compare also Müller 1997, Fanselow and Mahajan 2000, and Höhle 2000):

(5) %**Was** glaubst du dass Peter sagt **wen** Maria getroffen hat?
what think you that P. says whom M. met has
'Who do you think Peter says Maria has met?'

Accounting for what appears to be a non-standard type of unbounded dependency relationship between *was* and its putative *wh*-associate(s) has proven a somewhat recalcitrant problem for transformational grammar (see Kathol 1999, Simpson 2000, and the collection of articles in Lutz, Müller, and Stechow 2000 for some recent discussion).[2] In the generative literature, three main types of analysis have been proposed for the *was* ... *w* construction, all of which take *was* to be some kind of expletive element:

A. The PARTIAL MOVEMENT ANALYSIS, according to which *was* is a *wh*-expletive base-generated in the specifier of the matrix CP and replaced by the contentful *wh*-phrase in the embedded clause at LF (Stechow and Sternefeld 1988, McDaniel 1989);
B. the INDIRECT DEPENDENCY ANALYSIS, which holds that *was* is a CP-expletive that originates in matrix object position and is semantically associated with an interrogative adjunct clause (Dayal 1994);
C. the SINGLE CONSTITUENT ANALYSIS, which takes *was* to be a CP-expletive base-generated as the head of a complex DP object of the matrix verb, and which triggers LF pied-piping of its [+wh] complement clause (Mahajan 1996).[3]

These three analyses are represented schematically in 6(a–c) below.

[2] Earlier versions of most of the articles in Lutz, Müller, and Stechow 2000 have previously appeared in the workshop proceedings edited by Lutz and Müller (1996). In what follows, the older version of a paper will only be cited if it differs in relevant respects from the more recent one.

[3] The single constituent analysis (C) represents a variant of the indirect dependency approach (B) insofar as it also assumes that the relationship between *was* and the contentful *wh*-expression in the embedded clause is only indirect. As both analyses make somewhat different predictions though, each will be examined separately in section 3 below.

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(6) a. [$_{CP1}$ ***was*** … [$_{VP}$ ... [$_{CP2}$ ***wh*-XP$_i$** [$_{C'}$ ... ***t*$_i$**]] V]] (= A)

b. [$_{CP1}$[$_{CP1}$ ***was*$_i$** … [$_{VP}$ ... ***t*$_i$** V]] CP2$_{[+wh]}$] (= B)

c. [$_{CP1}$ ***was*$_i$** … [$_{VP}$ ... [$_{DP}$ ***t*$_i$** CP2$_{[+wh]}$] V]] (= C)

As it turns out, all of these suggestions are empirically and theoretically inadequate. The purpose of this paper is to present a novel analysis of the *was ... w* construction that does not suffer from any of the shortcomings of the proposals in A–C above and which is broadly compatible with Chomsky's (1995, and later) minimalist framework. The remainder of the paper is structured as follows. In section 2, I show that the partial movement account—which currently seems to represent the majority view—is not in fact tenable. The alternative possibility that *was* is a sentential object expletive is discussed, and eventually dismissed, in section 3. As an alternative to existing accounts, section 4 introduces a complex predicate analysis of the *was ... w* construction. Specifically, I suggest that *was* is a θ-marked object pronoun that originates in the specifier of V, and licenses a predicative CP in V-complement position that must match with respect to the feature [+wh]. This "interrogative concord" can be seen as analogous to case and ϕ-feature concord in nominal "small clauses" as in 7 below.

(7) Sie nannte ihn [einen Lügner]
she called him.ACC [a liar.ACC]

The suggested analysis retains the spirit of Dayal's indirect dependency analysis while overcoming some of its empirical shortcomings. It is also in line with Rothstein's 1995 proposal that apparent object expletives in sentences like *I regretted it that he was late* are actually θ-marked pronouns.

2. Problems with the Partial Movement Analysis.

Many earlier analyses (Van Riemsdijk 1983, Stechow and Sternefeld 1988, McDaniel 1989, Bayer 1996, and most of the articles in Lutz, Müller, and Stechow 2000) have treated *wh*-expletive constructions as involving an extended *wh*-chain, along the lines indicated in 8 below.

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(8) **Was$_i$** glaubst du [$_{CP}$ **wen$_i$** [$_{IP}$ Maria **t$_i$** getroffen hat]]?
what think you whom M. met has

Standard versions of the partial movement analysis assume that the expletive *wh*-operator *was* originates in matrix [Spec, CP] and is coindexed with the *wh*-object pronoun *wen* 'whom', which itself has only moved as far up as the specifier of the complement clause in the overt syntax. Under the assumption that the contentful *wh*-expression raises covertly to matrix [Spec, CP] to replace the dummy *wh*-pronoun (compare, e.g., Stechow and Sternefeld 1988, Beck and Berman 2000), the *was ... w* construction in 1b and its full extraction counterpart 1a will be isomorphic at LF. For various reasons, however, the partial movement account turns out to be untenable.

2.1. The Subcategorization Puzzle.
Among the most striking properties of the *was ... w* construction is the fact that the matrix verb must be of the kind that selects a non-interrogative complement only, while the lower clause is formally an indirect *wh*-question. This is confirmed by the following observations:

- In the absence of *was*, the verbs in question do not permit *wh*-interrogative complements (cf. 9a,b);
- embedded echo-questions as in 9c, or ordinary declaratives such as 9d, are not permitted;
- the embedded clause may not contain the declarative complementizer *dass* 'that', except in those dialects in which *dass* can be used as a variant of the null *wh*-interrogative complementizer as in 9e (compare Bayer 1996:248,fn.63); and
- inherently interrogative predicates such as *fragen* 'ask' do not permit the *was … w* construction at all, as witnessed by the illformedness of 9f.[4]

[4] Note that some varieties of German also permit the use of a *wh*-copying strategy (alongside the *was ... w* construction), which is illustrated in i.

(i) Wer glaubst du wer Recht hat?
who think you who right has
'Who do you think is right?' (adapted from Höhle 2000:257)

As has been noted by Höhle (2000), Pafel (2000), and others, the copy construction does not pattern fully with the *was ... w* construction, though. According to Fanselow and Mahajan (2000), the copy construction represents a variant of long-distance *wh*-extraction.

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(9) a. *Du glaubst **wen** Maria getroffen hat
you think whom M. met has
b. *Glaubst du **wen** Maria getroffen hat?
think you whom M. met has
c. ***Was** glaubst du dass Maria **wen** getroffen hat?
what think you that M. whom met has
d. ***Was** glaubst du dass Maria Mel Gibson getroffen hat?
what think you that M. Mel Gibson met has
e. %**Was** glaubst du **wen** dass Maria getroffen hat?
what think you whom that M. met has
f. ***Was** fragst du **wen** Maria getroffen hat?
what ask you whom M. met has

In short, under the partial movement approach, it is unclear why the presence of a [+wh] complement clause should fail to give rise to a subcategorization violation.

2.2. Was *Behaves like a CP-Expletive.*
The partial movement account offers no obvious explanation for the fact that *wh*-expletives cannot occur in monoclausal structures such as 10b (but see Stechow and Sternefeld 1988 or Müller 1997 for some suggestions as to how this "antilocality" effect might be accounted for under a partial movement approach).

(10) a. **Wen** hat Maria getroffen?
who has M. met
'Whom has Maria met?'
b. ***Was** hat Maria **wen** getroffen?
what has M. whom met

Dayal (1994) furthermore notes that there is an interpretative difference between long-distance *wh*-questions such as 1a on the one hand, and *wh*-expletive constructions such as 1b on the other, in that *was* in the latter case is interpreted as a CP-proform rather than as a placeholder for an embedded contentful *wh*-phrase. She observes that semantically, *wh*-expletive constructions bear a strong resemblance to sequential questions of the type shown below:

(11) **What** do you think? **Who** has Mary met?

Dayal's intuition is corroborated by certain syntactic and interpretative differences noted by Reis (2000) between long-distance *wh*-questions on

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the one hand, and *was ... w* constructions on the other. The latter, but not the former, turn out to pattern with *was*-parentheticals such as 12 below with respect to, e.g., matrix negation, licensing of *wh*-in situ phrases, choice of matrix verb, and certain scope phenomena.

(12) **Was** glaubst du—**wen** hat Maria getroffen?
what think you whom has M. met (= [11])

These observations suggest that it is the embedded interrogative clause, rather than the *wh*-expression(s) it contains, that serves as the associate of the *wh*-expletive. Under this view, 1b is more accurately paraphrased as *What do you think with respect to the question of who Mary has met?*[5]

2.3. No LF Isomorphism.

By way of avoiding the subcategorization problem noted above, proponents of a partial movement analysis usually assume that despite appearances, the embedded clause is headed by a non-interrogative C. Stechow and Sternefeld (1988), for instance, argue that it is the feature mismatch between the [-wh] feature of the intermediate C and the [+wh] feature of the *wh*-phrase in its specifier that forces the contentful *wh*-phrase to undergo further raising to matrix [Spec, CP] at LF, replacing the *wh*-expletive. There is, however, independent evidence showing that *was ... w* constructions and their alleged long-distance movement counterparts are not in fact isomorphic at LF.

Observe, for instance, that the class of verbs that permit the *was ... w* construction is not coextensive with the class of verbs—also known as "bridge" verbs—that allow long-distance *wh*-extraction (compare Stechow and Sternefeld 1988, Reis 2000). That is, not every long-distance movement structure has a *wh*-expletive correlate, and not every *was ... w* sentence has a long-distance movement counterpart (examples cited in Stechow 2000:458):

(13) a. ***Was** hast du dich erinnert **wer** kommen soll?
what have you yourself remembered who come should
b. **Wen** kannst du dich erinnern dass wir eingeladen haben?
whom can you yourself remember that we invited have

[5] Notice also that (to my ear at least) the answer *nichts* 'nothing' makes considerably more sense as a response to a *was ... w* question such as 1b than it does to a long-distance *wh*-question like 1a.

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(14) a. **Was** hat Hans entschieden **wer** kommen soll?
what hat H. decided who come should
b. ***Wer** hat Hans entschieden dass kommen soll?
who has H. decided that come should

If the *was* ... *w* construction were a mere spell-out variant of a long-distance *wh*-movement structure, we would expect both variants to alternate freely (possible differences in register aside). Instead, a more accurate generalization appears to be that for a verb to permit the *was* ... *w* construction, it must belong to the class (or classes) of verbs that also occur in *was*-parenthetical structures such as 12 (compare Reis 2000:380).

Another indication that 1a and 1b do not share the same LF is provided by the fact that the *was* … *w* construction, but not its full extraction counterpart, exhibits negative island effects.

(15) a. **Wen** glaubst du nicht dass Maria getroffen hat?
whom think you not that M. met has
'Who don't you think Maria has met?'
b. ***Was** glaubst du nicht **wen** Maria getroffen hat?
what think you not whom M. met has

The solution offered in Beck and Berman 2000 to the effect that covert but not overt *wh*-raising is blocked by the presence of a NegP "barrier" is not particularly convincing (nor is Rizzi's 1992 account in terms of relativized minimality, as has been shown by Dayal 1994).[6]

Further evidence against the assumption that *was* forms an LF-chain with its putative *wh*-associate in the subordinate clause comes from CP-conjunction facts. The grammaticality of coordination structures such as 16 below suggests that *was* cannot be subject to expletive replacement, as the simultaneous raising of *wann* 'when' and *wen* 'who' would lead to an interpretative dilemma at LF (example adapted from Höhle 2000:261):

[6] Further differences in locality requirements ("island effects") between *was* and its putative *wh*-phrase associate, on the one hand, and the contentful *wh*-phrase and its trace, on the other, have been noted by Gamon (1995).

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(16) Es ist egal, **was** er meint, [$_{CP}$ **wann** sie kommt] und
it is unimportant what he thinks when she comes and
[$_{CP}$ **wen** sie mitbringt]
whom she with-brings
'It does not matter what he thinks as to when she will come and who she will bring along.'

Moreover, the lack of certain scope interactions observed by Pafel (2000) indicates that contrary to what is assumed under the partial movement approach, *was* is not replaced by the "real" *wh*-phrase at LF. For illustration, compare the examples in 17 and 18, each of which contains both an existential (*wo* 'where') and a universal (*jeder* 'everyone') quantifier (examples adapted from Pafel 2000:339, 346ff.).

(17) a. **Wo** glaubst du dass jeder gerne leben würde? (∀∃, ∃∀)
where think you that everyone readily live would
b. **Was** glaubst du **wo** jeder gerne leben würde? (∀∃, ∃∀)
what think you where everyone readily live would
'Where do you think that everyone would like to live?'

(18) a. **Wo** glaubt jeder dass sie gerne leben würde? (∀∃, ∃∀)
where thinks everyone that she readily live would
b. **Was** glaubt jeder **wo** sie gerne leben würde? (∀∃ only)
what thinks everyone where she readily live would
'Where does everyone think that she would like to live?'

The absence of a wide scope reading for *wo* 'where' in 18b suggests that *wo* fails to undergo LF raising across the quantified subject *jeder* 'everyone' to replace *was.*

2.4. Was *Originates Lower Than Matrix [Spec, CP].*
The ability of *was* to license a parasitic gap indicates that *was* has itself undergone movement (example from Fanselow and Mahajan 2000:205):[7]

[7] Parasitic gaps are normally licensed by referential *wh*-expressions only. Fanselow and Mahajan (2000:204–206), however, suggest that the gaps licensed by expletive *was* may be different from ordinary parasitic gaps (compare also Sabel 2000:417ff.). If this is correct, then examples like 19, while providing evidence that *was* is indeed some kind of sentential proform, do not necessarily imply that it is a referential expression.

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(19) **Was** hat er [ohne wirklich *e* zu wissen] behauptet **wen** sie
what has he without really to know claimed whom she
liebt
loves
'Who did he claim that she loves without really knowing it?'

Observe further that in *wh*-in situ languages such as Hindi, the *wh*-expletive always occurs in direct object position.

(20) jaun **kyaa** soctaa hai meri **kis-se** baat karegii?
John what thinks Mary who-with will-talk
'Who does John think Mary will talk to?' (Dayal 1994:138)

The fact that most speakers of German reject examples with *was* in situ has often been cited as a strong argument in favor of the partial movement analysis. As noted by Höhle (2000:260), however, some speakers do not consider examples such as 21a,b below as bad as one would expect if *was* were indeed base-generated in matrix [Spec, CP].[8]

[8] To my own ear, echo questions as in i below (embedded within an appropriate pragmatic context, and with *was* carrying heavy stress) sound quite acceptable.

(i) Speaker A: Ich glaube Maria hat gestern Mel Gibson getroffen.
I think M. has yesterday Mel Gibson met
'I think Maria met Mel Gibson yesterday.'

Speaker B: Du glaubst **WAS wen** Maria getroffen hat?
you think what whom M. met has
'You think Maria met *who*?'

Brandner (2000:49) (among others), on the other hand, considers echo *was … w* questions generally ungrammatical, which according to her follows from the expletive nature of *was*. Given that in situ *wh*-expressions in echo questions must be able to carry stress, and that expletives are generally unstressed, we do not expect *wh*-expletives to be licensed in in situ echo questions. Note, however, that independent of the controversy surrounding the acceptability of examples like i, the expletive character of *was* is called into question by the observation that *was* can carry stress in non-echo questions (signalling, e.g., disbelief):

(ii) WAS hat er gesagt wen Maria liebt?
what has he said whom M. loves
'Who did he say Maria loves?'

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(21) a. ?***Wer*** meint **was**, **wen** wir gewählt haben?
who thinks what whom we elected have
b. ?*Karl meint **was**, **wen** wir gewählt haben?
K. thinks what whom we elected have

I will return to the issue of *was* in situ in section 4.4 below.

The idea that *was*, like Hindi *kyaa*, originates in matrix object position is consistent with the observation that it cannot cooccur with the sentential object expletive *es* 'it' (compare 22a), and that it is normally incompatible with active subject questions such as 22b below (examples from Fanselow and Mahajan 2000:199ff.).[9]

(22) a. ***Was** glaubst du es **wen** Maria liebt?
what believe you it whom M. loves
b. ***Was** ärgert (es) dich **wen** sie liebt?
what annoys (it) you whom she loves

Summarizing the discussion thus far, the direct dependency analysis fails to offer a satisfactory account of the syntax of *w h*-expletive constructions, and wrongly predicts that they should be fully synonymous with their putative long-distance movement correlates. Instead, the above observations indicate that *was* originates in object position, and that its associate is the embedded CP rather than the *wh*-expression(s) it contains.

2.5. Theoretical Problems.

Note that from a theoretical perspective, the partial movement account is not obviously compatible with minimalist assumptions (Chomsky 1995, and later), either. For one thing, given the assumption that movement is triggered by uninterpretable features of the attracting functional head, it

[9] Fanselow and Mahajan (2000:200ff.) note some exceptions to the latter generalization, though. They suggest that the reason why *was* does not normally cooccur with subject questions is that subject questions tend to be factive, and point out that factive clauses are usually incompatible with the *was* strategy anyway (compare i below, cited by Fanselow and Mahajan 2000:201).

(i) *Was bedauert er, wen er kennt?
what regrets he who he knows
Lit. 'Who does he regret that he knows?'

The analysis presented in section 4 below is consistent with the observation that subject questions are not per se excluded from the *was … w* construction.

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is unclear why the contentful *wh*-phrase should have to raise to the intermediate [Spec, CP] position in the first place. The hypothesis that partial *wh*-movement should target a non-interrogative C is especially odd in the light of the fact that unequivocally declarative complement clauses do not normally tolerate any *wh*-expression in CP-specifier position. Secondly, one might ask what should motivate LF-raising of the embedded *wh*-phrase (or its correlates in more recent work, feature raising as in Chomsky 1995, or the operation AGREE introduced in Chomsky 1998), if it is *was* that serves to check those features of the matrix C that otherwise trigger overt *wh*-raising (compare also Sabel 2000:421, Simpson 2000: Chapter 3).[10]

Cheng (2000), Sabel (2000), and Simpson (2000) all suggest possible ways of reconciling the partial movement approach with Chomsky's minimalist framework. Cheng's account crucially exploits Chomsky's (1995) distinction between feature movement (which involves adjunction of formal features to a head) and category movement. Specifically, she claims that "partial" *wh*-movement is actually feature movement, in the sense that the *wh*-scope marker selectively spells out the [+wh] feature of the contentful *wh*-phrase. With the [+wh] feature having left the contentful *wh*-phrase, the intermediate [Spec, CP] is able to host the remainder of the *wh*-phrase without this resulting in a (syntactically illicit) feature-mismatch (Cheng 2000:95). At the same time though, Cheng assumes that the raised [+wh] feature leaves behind a copy of itself in the intermediate C, an assumption which is necessary for a subsequent "repair strategy"—the process that serves to reunite the stray [+wh] feature with the remnant *wh*-phrase—to work at LF (compare 23b below, adapted from Cheng 2000:81).

(23) a. **Was** glaubt Hans **wen** Jakob anruft
what thinks H. whom J. is.calling
'Who does Hans think Jakob is calling?'

b. $[_{CP1}$ [+*wh*] glaubt Hans $[_{CP2}$ wen $[_{C^{\circ}}$ [+*wh*]] $[_{IP}$ Jakob t_{wen} anruft]]]
copy

Note, however, that the presence of this copy in the lower clause would appear to give rise to precisely the kind of feature mismatch that her

[10] Making matters worse, Fanselow and Mahajan (2000:195) point out that the option of base-generating expletive *was* in matrix [Spec, CP] does not appear to be available in Chomsky's (1998) revised minimalist framework.

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analysis sought to avoid. Movement of the lower *wh*-phrase to the intermediate [Spec, CP] is required, according to Cheng, in order to establish a configuration that allows repair to take place, an assumption that is not obviously compatible with the view that all movement is driven by uninterpretable features of the target. These rather more technical problems apart, Cheng's analysis, being based on the assumption that *was* and the contentful *wh*-phrase are part of a single movement chain, offers no straightforward explanation for the observed syntactic and semantic differences between the *wh*-expletive construction and long-distance *wh*-extraction.

A somewhat different approach from Cheng's has been taken by Sabel (2000). Based on the assumption that *wh*-movement universally involves both [focus] and [wh] features, Sabel suggests that the feature [+focus] in German is "strong" in Chomsky's (1995) sense (thus triggering overt movement), whereas the feature [+wh] is "weak" (and hence unable to trigger overt raising). Regarding the *was … w* construction, he proposes that insertion (or possibly, raising) of *was* serves to check the strong [+focus] feature of matrix C, and that partial movement of the lower *wh*-phrase is triggered by the [+focus] feature of the intermediate C.

(24) $[_{CP1[+wh,+focus]}$ was … $[_{CP2[+focus]}$ *wh*-phrase … $[_{IP2}$ … t_{wh} …]]]

The interpretable but weak [+wh] feature of the matrix C, and the interpretable [+wh] feature on the embedded *wh*-phrase itself, on the other hand, do not need to be checked at all.[11]

The hypothesis that partial movement is triggered by focus features has been called into question by Simpson (2000), though. Among other things, he points out that the focus raising hypothesis wrongly predicts that partial "focus" movement should also occur in other types of multiple *wh*-questions, and that it is at odds with the fact that in German embedded clauses, [Spec, CP] is generally unable to host any other type of focused constituent. By way of offering an alternative to the above proposals, Simpson suggests that German *was* may be a defective *wh*-

[11] Note that this suggestion is incompatible with Chomsky's (1998) assumption that the [wh] feature carried by a *wh*-expression is uninterpretable, and hence must be checked, an assumption that also raises problems for Simpson's (2000) analysis.

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phrase in that it lacks an operator feature.[12] With the *wh*-expletive being unable to identify matrix C as both [+wh] and [+Q], a non-defective *wh*-associate must be locally present that provides the operator feature necessary for identifying matrix C as interrogative.

(25) $[_{CP1[+wh,\ +Q]}\ was_{[+wh]}\ \ldots\ [_{CP2[-Q]}\ wh\text{-phrase}_{[+wh,\ +Q]}\ \ldots\ [_{IP2}\ \ldots\ t_{wh}\ \ldots\ ]]]$

Thus partial movement is triggered by the need for the embedded *wh*-phrase to be "visible" to matrix C. The fact that the lower *wh*-phrase need not be in a Specifier-Head relation with matrix C, and the observation that *wh*-expletive questions and ordinary long-distance *wh*-questions appear to be subject to different locality constraints can be explained, according to Simpson, by the assumption that the function of the *wh*-expletive is to reset, or loosen, the locality requirements of matrix C. While Simpson's account manages to avoid most of the problems that arise from the more traditional assumption that *was* and its associate *wh*-phrase are related through movement, the idea that raising of the embedded *wh*-phrase to intermediate [Spec, CP] should be triggered by matrix C is difficult to reconcile with standard minimalist assumptions on the locality of movement and feature checking. What is more, by assuming that the *wh*-expletive's "associate" is the contentful *wh*-phrase rather than the embedded CP, his analysis, like Cheng's and Sabel's, fails to provide any explanation for the observation that *was* is interpreted as a CP-proform.

In sum, although it appears possible for the partial movement analysis to be revised in such a way as to render it broadly compatible with Chomsky's (1995) framework, the above analyses all have difficulty accounting for the observed syntactic and/or semantic differences between full and partial movement structures. I argue below that like their predecessors, minimalist variants of the partial movement analysis are built upon the erroneous assumptions (i) that some kind of direct dependency is established between *was* and the contentful *wh*-expression in the lower clause, and (ii) that the embedded clause is headed by a non-interrogative, or [-wh], C.

[12] Like Fanselow and Mahajan (2000) and Mahajan (2000), Simpson (2000) assumes that *was* originates in a case-checking position rather than being base-generated in [Spec, CP].

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3. *Was* as an Object Expletive.

3.1. The Indirect Dependency Hypothesis.

Expletives are semantically and grammatically impoverished elements that serve as placeholders for some "meaningful" associate. According to standard assumptions, expletives lack a θ-role, and are replaced by, or pied-pipe along, their associate (or the associate's formal features) at LF (Chomsky 1986, 1995, among others). Unlike subject expletives, which have been extensively discussed in the recent literature, object expletives have received comparatively little attention in the past (see, e.g., Authier 1991, Rothstein 1995, or Stroik 1996). Could it be the case, then, that *was* is an example of an object expletive serving as a placeholder for an extraposed CP, a [+wh] analogue to English *it* in sentences such as 26?

(26) He regretted **it** that he was late

The assumption that *was* is the [+wh] counterpart of the CP expletive *es* 'it' in structures such as 27a is consistent with the observation that it never cooccurs with [-wh] CP-expletives (compare 27b, and the examples in 22 above).

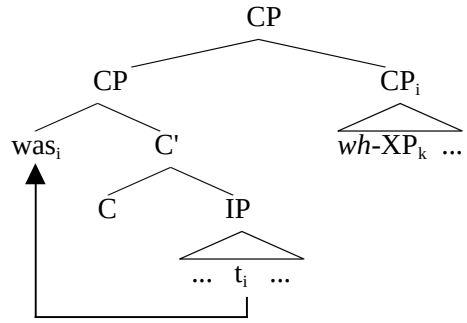
(27) a. **Es** wird behauptet [$_{CP}$ dass Maria Mel Gibson getroffen hat]
it is said that M. Mel Gibson met has
'They are saying that Maria has met Mel Gibson.'

b. **Was** wird (***es**) behauptet [$_{CP}$ **wen** Maria getroffen hat]?
what is it said whom M. met has
'Who are they saying Maria has met?'

All versions of the indirect dependency approach to the *was … w* construction implement the idea that *was* originates in a position normally associated with direct objects. According to Dayal (1994), *was* is base-generated in matrix object position, while its associate, the embedded interrogative CP, is adjoined to the matrix CP or IP.

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(28)



Note that although Dayal (1994:151) refers to the matrix *wh*-pronoun as an expletive, her analysis in fact implies that it is argumental, as is stated explicitly in Dayal 2000:164. The link between *was* and the embedded *wh*-phrase is only indirect, with *was* being semantically interpreted as an existential quantifier over propositions whose (covert) restriction is spelled out by the embedded interrogative CP.[13] As Horvath (2000) points out, the indirect dependency approach is a priori better compatible with minimalist theory than the partial movement approach because according to the former, all *wh*-movement (and associated *wh*-feature checking) takes place locally. It also avoids the problems and questions raised by analyzing *was* as a (semantically void) "scope marker," or as a phonetic realization of some feature(s) of the embedded contentful *wh*-phrase. By assuming that *was* rather than the embedded CP functions as the direct object of the matrix verb, the subcategorization puzzle, which constitutes one of the major problems for the partial movement analysis, has a straightforward solution. Unfortunately though, Dayal's adjunction hypothesis turns out to be problematic as it can be shown that the embedded interrogative CP is syntactically a complement rather than an adjunct. Evidence for this is found in data from three areas: bound pronouns, linear adjacency, and interrogative concord.

Bound pronouns: Contrary to what is suggested in Dayal (1994:151ff.), the bound variable reading for embedded pronouns such as *sie* 'she' in

[13] This idea is consistent with the observation that in all languages that show scope marking, the lexical item used as a *wh*-expletive is analogous to English *what* in that it can quantify over propositions (Dayal 1994:162). While maintaining the claim that *wh*-scope markers universally take a sentential associate, Dayal (2000) does not rule out the possibility that German *was* may originate in matrix [Spec, CP].

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29 is in fact available both in the extraction structure and in the corresponding scope marking construction (compare also Beck and Berman 2000, Dayal 2000).

(29) a. **Wo** glaubt [jede Katze]$_i$ dass sie$_i$ die grössten Mäuse findet?
where thinks every cat that she the largest mice finds
b. **Was** glaubt [jede Katze]$_i$ **wo** sie$_i$ die grössten Mäuse findet?
what thinks every cat where she the largest mice finds
'Where does every cat think it will find the largest mice?'

This indicates that the matrix subject *jede Katze* 'every cat' c-commands the embedded clause in both examples, which means that it cannot be adjoined to either CP or IP.

Linear adjacency: A fairly strict adjacency requirement appears to hold between the matrix verb and the embedded *wh*-clause. As illustrated by 30b, an intervening adverbial clause is not permitted.

(30) a. Es ist egal **was** er glaubt wenn er betrunken ist
it is unimportant what he thinks when he drunk is
'It does not matter what he thinks when he is drunk.'

b. Es ist egal **was** er glaubt (?*wenn er betrunken ist)
it is unimportant what he thinks when he drunk is
wen Maria getroffen hat (wenn er betrunken ist)
whom M. met has

The observed adjacency requirement is indicative of a head-complement relationship between *glauben* 'think' and the embedded interrogative CP. This idea is consistent with the observation that finite complement clauses in allegedly head-final languages like German or Dutch follow the verb even in embedded clauses (compare, e.g., Zwart 1994), as well as with Haider's (1997) claim that "extraposed" constituents in German are more deeply embedded than the preceding phrases.[14]

[14] Observe in this connection that *was* questions involving genuine (adverbial) adjunct clauses such as ii admit a non-*wh* expletive interpretation only.

(i) Was sagt Hans [$_{CP}$ wann er Maria trifft] ?
what says H. when he M. meets
'When does Hans say (that) he will meet Maria?'

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Interrogative concord: Dayal's account fails to provide an explanation of why embedded yes/no interrogatives should be excluded (see also Horvath 1997, Kathol 1999, and Stechow 2000).

(31) ***Was** glaubst du ob Maria Mel Gibson getroffen hat?
what think you if M. Mel Gibson met has

On the other hand, her analysis wrongly predicts that intermediate complement clauses introduced by the declarative complementizer *dass* 'that' (cf. 5, repeated below) should universally be ruled out as they violate the prohibition against adjunction to arguments (Chomsky 1986), and because *was* fails to be locally associated with the embedded interrogative clause (compare Dayal 1994:159ff.)

(5) %**Was** glaubst du dass Peter sagt **wen** Maria getroffen hat?
what think you that P. says whom M. met has
'Who do you think Peter says that Maria has met?'

Taken together, the above observations indicate that the embedded interrogative CP is structurally a complement of V rather than an adjunct.

Other variants of the indirect dependency approach assume that the matrix *wh*-phrase is genuinely "expletive" in that it originates not in an argument position, but in the position associated with objective case-checking, that is, in [Spec, AgrOP] or [Spec, vP] (Fanselow and Mahajan 2000, Mahajan 2000, or Horvath 1997, 2000 for Hungarian). While this assumption avoids the problems raised by Dayal's adjunction hypothesis, it does, in turn, give rise to the familiar subcategorization puzzle in that it implies that the embedded interrogative CP functions as a thematic argument of the matrix verb.

3.2. Problems with the Single Constituent Analysis.

It would seem that the subcategorization puzzle, along with several other problems posed by the *was ... w* construction, would disappear under the assumption that the *wh*-expletive and its associate CP form a single constituent at some level of representation. Mahajan (1996) makes a

---

(ii) Was sagt Hans [$_{CP}$ wann immer er Maria trifft] ?
what says H. when ever he M. meets
'What does Hans say whenever he meets Maria?'

That is, ii can only be understood in the sense that Hans makes a certain utterance every time he meets Maria, but not as quasi-synonymous with i.

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suggestion to this effect, arguing that *was* originates as the head of a complex noun phrase, taking a [+wh] CP as its complement.[15] Under this view, a question like 1b *Was glaubst du wen Maria getroffen hat?* would be derived from the underlying structure 32a. At LF, the complement CP is pied-piped along, replacing the expletive (cf. 32c; compare also Fanselow and Mahajan 1996).[16]

(32) a. du glaubst [$_{DP}$ [$_{D}$ **was**] [$_{CP}$ **wen$_i$** [$_{C'}$ _ [$_{IP}$ Maria t$_i$ getroffen hat]]]]
you think what whom M. met has
b. **Was$_k$** glaubst du [$_{DP}$ **t$_k$** [$_{CP}$ **wen$_i$** [$_{C'}$ _ [$_{IP}$ Maria t$_i$ getroffen hat]]]]?
what think you whom M. met has
c. [$_{CP}$ **wen$_i$** Maria **t$_i$** getroffen hat]$_k$ glaubst du **t$_k$** ?
whom M. met has think you

Unfortunately, the complex DP analysis faces a number of empirical and theoretical problems as well, of which I discuss three major ones below.

First, as pointed out by Bayer (1996), verbs that permit the *was ... w* construction typically select propositions rather than individuals as their internal argument. Those that readily admit DP objects seem to vary systematically in meaning depending on the category of their complement. The verb *glauben* (lit. 'believe'), for instance, is understood as a "pure attitude verb" when combined with a CP but takes on a more specific meaning along the lines of 'take for granted without having evidence' when selecting a full DP (Bayer 1996:227).

(33) *glauben* [__ DP] ≈ 'believe'
[__ CP] ≈ 'think'

In the *was ... w* construction, these verbs are always interpreted as pure attitude verbs, though.

Second, the complex DP analysis incorrectly predicts that *was ... w* structures should occur as complements of prepositions.

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[15] See Herburger 1994 for a similar suggestion. Note that the use of expletive determiners is independently attested in German (compare Longobardi 1994).

[16] Another variant of the single constituent analysis for object-expletive structures is Stroik's (1996) proposal that CP-expletives such as English *it* originate in the specifier of their associate CP. As in the *was ... w* construction, the specifier position of the embedded CP is filled by a *wh*-phrase; this possibility would seem to be ruled out for *wh*-expletive structures, though.

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(34) a. *Er denkt an [$_{DP}$ was / es / _ [$_{CP}$ wen Maria liebt]]
he thinks of what / it / _ who M. loves
b. *An was denkst du [$_{CP}$ wen Maria liebt]?
of what think you who M. loves

Finally, the *was* ... *w* construction does not permit overt pied-piping of the embedded CP, whereas other types of complex DP do (compare 35a,b below).

(35) a. [$_{DP}$ **Den** [$_{CP}$ **den$_i$** Maria t_i liebt]]$_k$ haben wir gestern t_k im
PRN PRN M. loves have we yesterday in.the
Bus gesehen
bus seen
'The one that Maria loves, we saw on the bus yesterday.'
b. [$_{DP}$ **Wen** [$_{CP}$ **den$_i$** Maria t_i kennt]]$_k$ hast du noch nie t_k getroffen?
whom PRN M. knows have you PRT never met
'Which person that Maria knows have you never met?'
c. *[$_{DP}$ **Was** [$_{CP}$ **wen$_i$** Maria t_i getroffen hat]]$_k$ hat er t_k geglaubt?
what whom M. met has has he believed

In sum, there is no evidence that *was* and its associate CP form a complex DP constituent at any stage in the derivation.

3.3. Summary.

The above observations suggest that while Dayal's (1994) claim that *was* is a CP-proform generated in object position is essentially correct, there is evidence that the embedded interrogative CP is structurally a complement of V rather than an adjunct. This raises the question of how each of the two is formally licensed, an issue that will be addressed in the next section.

4. The Complex Predicate Analysis.

4.1. "Expletive" was *as an Argument Expression.*

Thus far we have seen no convincing evidence that *was* is an expletive in any standard sense of the term. On the other hand, data from the following seven areas support the hypothesis that *was* is argumental:[17]

[17] See Felser and Rupp (to appear) for arguments that apparent subject expletives may also be thematic.

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Selectional restrictions: *Was* is a propositional proform (compare *Was glaubst du?* 'What do you think?'), but neutral with respect to the declarative/interrogative distinction in that it can serve as a proform for either type of sentence. Hence, contrary to the embedded interrogative CP, *was* satisfies the selectional requirements of the matrix verb, and is thus capable of bearing the role of Theme.[18] The hypothesis that *was* is the internal argument of the matrix verb correctly predicts that the *was*-strategy should be unavailable if the complement of V is a complex DP, as this is itself capable of carrying the role of Theme (examples from Fanselow and Mahajan 2000:203):

(36) a. *__Was__ hörtest du [$_{DP}$ eine Geschichte [$_{CP}$ __wen__ sie liebt]]
what heard you a story whom she loves
b. ?__Wen__ hörtest du [$_{DP}$ eine Geschichte [$_{CP}$ dass sie liebt]]
whom heard you a story that she loves
'Who did you hear a story that she loves?'

Obligatoriness: Whenever a [-wh] taking verb combines with a [+wh] interrogative clause, the presence of *was* is obligatory (a generalization that does not, however, hold the other way around).

(37) a. __Was__ glaubst du?
what think you
'What do you think?'
b. *Glaubst du [$_{CP}$ __wen__ Maria getroffen hat]?
think you whom M. met has

Syntactic mobility: Although incompatible with most (active) subject questions, *was* is capable of undergoing argument movement, notably passivization.

(38) __Was__$_{i}$ wird __t__$_{i}$ behauptet [$_{CP}$ __wen__ Maria getroffen hat] ?
what is said whom M. met has
'Who are they saying Maria has met?'

[18] This idea is consistent with Reis' (2000:381) observation that "although initial *was* figures as a kind of scope-marking expletive in *was ... w* constructions, it must be simultaneously licensed as a possible object of the matrix verb of the *was*-clause, just as if it were part of a parenthetical clause." That is, verbs like *scheinen* 'seem' or *erinnern* 'remember', for example, that cannot take *was* as their direct object do not permit the *was ... w* construction either.

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Case and ϕ-features: German *was* is formally a 3rd person neuter pronoun morphologically ambiguous between NOM and ACC. Its Hungarian counterpart *mit*, however, shows case agreement with its CP associate, and also triggers object agreement on the matrix verb (example from Horvath 1997:527):

(39) **Mit** tudnak/*tudják, hogy
what.ACC know-3pl.indef.DO/*know-3pl.def.DO that
melyik fiút szereted?
which boy.ACC like-2sg.def.DO
Lit. 'What do they know (INDEF) which boy you like (DEF)?'

No expletive replacement: The existence of certain "anti-crossover effects" observed by Sabel (2000:420f.) indicate that *was* is not replaced by the embedded CP at LF. Note that in 40, coindexing the proper noun *Boris* with the c-commanding subject pronoun *er* 'he' gives rise to a condition C violation.

(40) *Ich weiss nicht [$_{CP1}$ **was** er$_i$ glaubt [$_{CP2}$ in wieviel Sätzen Boris$_i$
I know not what he thinks in how-many sets B.
im Finale siegen wird]]
in-the final win will

If *was* in 40 were replaced by CP2 at LF, we would expect the sentence to be grammatical, contrary to Sabel's judgement. Overt topicalization of CP2, by contrast, only yields a relatively weak *wh*-island violation:[19]

(41) ?[$_{CP2}$ In wieviel Sätzen Boris$_i$ im Finale siegen wird] weiss
in how-many sets B. in-the final win will know
ich nicht [$_{CP1}$ **was** er$_i$ glaubt t$_{CP2}$]
I not what he thinks

Small clauses: The assumption that *was* is argumental is in line with Rothstein's (1995) claim that true object expletives do not exist. She argues that because true expletives are licensed through syntactic predication rather than θ-marking, they can only ever originate in subject

[19] An anonymous reviewer points out that since judgments on such rather unnatural-sounding examples are not very reliable, any argument derived from them will carry only limited force. I agree with Sabel's judgments here, though, at least as far as the relative acceptability of 40 versus 41 is concerned.

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position. If this view is correct, then apparent object expletives such as *it* in 26 above are either subjects of ECM or small clause complements, or, as in the case of German *was*, θ-marked object pronouns. The fact that *was* (as opposed to expletive *es* 'it') is unable to function as the subject of small clauses as in 42 indicates that it is excluded from positions reserved for "true" expletives (examples adapted from Sabel 2000:418).

(42) a. Er findet [$_{SC}$ **es** überraschend] [dass Maria Hans noch liebt]
he considers it surprising that M. H. still loves
'He considers it surprising that Maria still loves Hans.'
b.*$\mathbf{Was_i}$ findet er [$_{SC}$ t_i überraschend] [$\mathbf{wen_k}$ Maria t_k noch liebt]?
what considers he surprising whom M. still loves

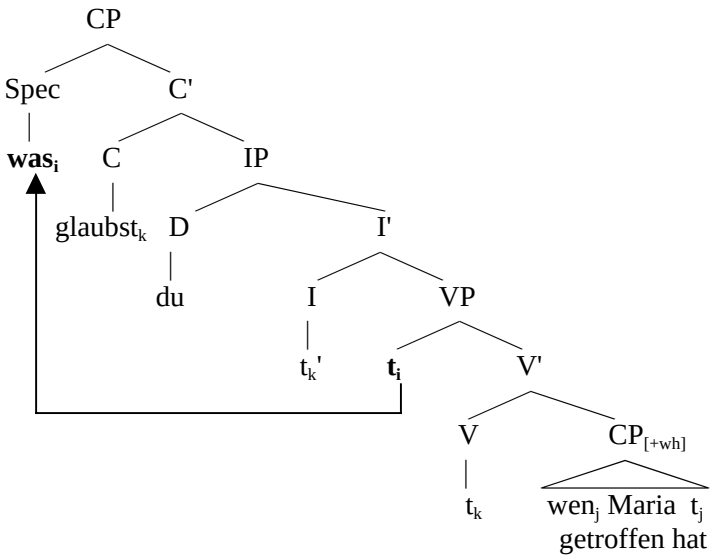
Negation: The negative island effect noted earlier also follows from the assumption that *was* is argumental. According to Dayal (1994:167), the fact that *wh*-expletive constructions are bad if the matrix clause is negated is due to a condition on negative questions to the effect that they require D-linked domains. That is, to the extent that it makes any sense at all to ask a negative question such as *What don't you think?*, it is necessary that a (finite) set of possible answers can be presupposed, or is previously established in the discourse (as it would otherwise be impossible to enumerate all the things that X does not think). Given this, the hypothesis that *was* is a CP-proform explains why negative long-distance *wh*-movement structures such as 15a are possible while negative *was ... w* constructions are not.

4.2. The Complex Predicate Hypothesis.

In this section I propose an alternative analysis for the *was ... w* construction which argues that the matrix verb and the embedded interrogative clause together form a syntactically complex predicate whose semantic subject is the putative "object expletive" *was*. Specifically, I suggest that *was* originates in the specifier of VP, where it is assigned the θ-role of Theme. It checks structural accusative (or nominative, in subject questions or passive contexts), and raises further to matrix [Spec, CP] in order to check the interrogative feature of the matrix C. The embedded CP is an unselected complement of V that is licensed not through θ-marking but through being predicated of the object pronoun *was*. Sentence 1b *Was glaubst du wen Maria getroffen hat?* then has the following simplified structure:

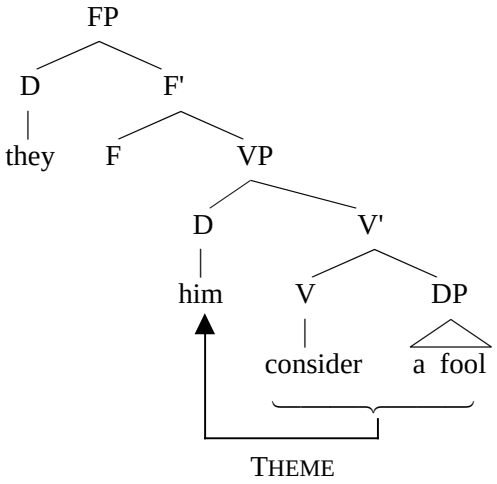
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(43)



The analysis in 43 accounts for our earlier observations that (i) *was* originates lower than matrix [Spec, CP], (ii) the embedded *wh*-clause is a complement rather than an adjunct, and (iii) *was* is not subject to expletive replacement at LF, either by the *wh*-phrase in the embedded clause, or by the lower CP itself. Similar analyses have been suggested by Contreras (1995) and Williams (1997) for what appear to be non-constituent "small clauses," as in *They consider him a fool* (where FP denotes some functional projection such as Chomsky's 1995 "small" vP):

(44)



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In short, I propose that *was* is a θ-marked object pronoun capable of licensing a secondary predicate, a [+wh] CP located in V-complement position. As the embedded *wh*-clause is incompatible with the verb's Theme role, the only way to avoid an interpretative mismatch is for it to be construed predicatively.[20] Far from being a syntactic dummy, then, the interrogative pronoun *was* serves two important functions *besides* that of marking the main clause out as a *wh*-question: it is the internal argument of the main verb, and is semantically interpreted as the subject of the embedded predicative *wh*-clause.

Note that the predicative use of *wh*-interrogatives is independently attested. As far as its semantic function is concerned, the embedded CP in the *was ... w* construction is similar to a relative clause. Restrictive relatives function semantically as predicates (compare, e.g., Heim and Kratzer 1998:86ff.). Formally, the lower CP resembles free relatives as in 45 below, which (in German) differ from other types of relative clause in that they are introduced by a *wh*-expression.

(45) Sie glaubt nur [**was** sie glauben will]
she believes only what she believe wants
'She only believes what she wants to believe.'

According to Rizzi's (1990) typology of complementizer types, the head of *wh*-relatives carries the feature specification [+wh, +pred], the latter formally capturing the predicative character of relative clauses. Given the observed analogy between relative clauses and the construction under investigation, I propose to adopt Rizzi's specification of *wh*-relatives for the predicative complement clause in the *was … w* construction. As 46 below illustrates, under this view, each of the *wh*-expressions involved will enter into a local checking relation with a [+wh] C.

(46) $[_{CP1[+wh,-pred]}$ was … $[_{IP1}$ … t_{was} …
$[_{CP2[+wh,+pred]}$ *wh*-phrase … $[_{IP2}$ … t_{wh} …]]]]

There is no direct syntactic dependency between *was* and the lower *wh*-phrase, only an abstract subject-predicate relationship between *was* and the complement CP.

[20] Under this view, it is the embedded CP rather than *was* that is "expletive" in the sense of being a non-thematic expression base-generated in an argument position (an observation I owe to J. Ouhalla).

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The above analogy may extend even further. In the same way as a relative clause restricts the set of possible referents of the "head" DP, the embedded CP in the *was ... w* construction appears to restrict the set of possible answers to questions of the type *What do you think?*[21] The assumption that the complement in the *was ... w* construction is a type of relative clause would also explain speakers' intuitions that unlike *was*-parentheticals, *was ... w* sentences are not in fact understood as involving two independent questions. Rather, the only interrogative operator present is the object pronoun *was*. The relative pronoun in the embedded clause, by contrast, is semantically vacuous (compare Chomsky 1995:56, among others), and primarily required for complement-internal checking purposes (see also section 4.3 below). Like relative clauses, the *was ... w* construction, then, illustrates the possibility that syntactic and semantic interrogativity may be dissociated.

Under the present analysis, intermediate *dass*-clauses (for those speakers who permit them) are not a problem as they can be analyzed as involving ordinary long-distance extraction of *was* from the intermediate clause:

(47) %[$_{CP1[+wh]}$ **Was$_i$** glaubst du … [$_{CP2[-wh]}$ **t$_i$'** [$_{C'}$ dass Peter **t$_i$** sagt
what think you that P. says
[$_{CP3[+wh]}$ **wen$_k$** Maria **t$_k$** getroffen hat]]]]
whom M. met has
'Who do you think Peter says Maria has met?'

Recall that for the majority of speakers who do not permit long *was* extraction though, every intermediate [Spec, CP] position in complex *was … w* questions must contain an additional instance of *was*.

(48) [$_{CP1[+wh]}$ **Was$_i$** glaubst du … **t$_i$** … [$_{CP2[+wh]}$ **was$_i$** Peter **t$_i$** sagt
what think you what P. says
[$_{CP3[+wh]}$ **wen$_k$** Maria **t$_k$** getroffen hat]]]
whom M. met has

According to the analysis proposed above, all *wh*-movement in 48 is local, with each *wh*-expression being part of a separate *wh*-chain. Note that nothing prevents the *was*-strategy from being applied more than

[21] Compare Dayal's (1996:125) claim that "German scope marking […] involves quantification over propositional variables in CP1, with CP2 acting as a restriction on the quantification."

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once in the same sentence. Under the present analysis, there is no need to postulate any previously unknown type of long-distance *wh*-chain. Nor is there any need for assigning *was* any special status other than that of an ordinary *wh*-pronoun that functions as a CP-proform.

From a functionalist perspective, the *was*-strategy provides a legitimate means for embedding a syntactically interrogative clause under a verb that selects declarative complements only. The use of *was* is unneccessary (and hence, prohibited) with verbs that select interrogative complements such as *fragen* 'ask'. In some cases, notably where extraction of a subject would lead to a *that*-trace effect, the *was* strategy constitutes the only legitimate way of forming the intended *wh*-interrogative (examples adapted from McDaniel 1989:574):

(49) a. *$\mathbf{Wer_i}$ glaubst du dass $\mathbf{t_i}$ heute ankommt ?
who think you that today arrives
b. **Was** glaubst du **wer** heute ankommt ?
what think you who today arrives
'Who do you think is arriving today?'

4.3. Interrogative Concord.

One question that has not yet been addressed is why the associate of *was* must be a [+wh] interrogative.

(50) a. *Du glaubst **es wen** Maria getroffen hat
you think it who M. met has
b. ***Was** glaubst du ob Maria jemanden getroffen hat?
what think you if M. someone met has

I propose that this "interrogative concord" between *was* and the embedded CP is analogous to case (and number) concord in nominal small clause constructions such as 51.[22]

(51) Sie nannten ihn einen Lügner
they called him a liar

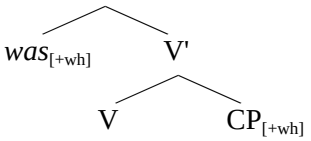
If a *wh*-feature is analogous to case, as Chomsky (1998:21) suggests, then interrogative concord would seem to be determined in the same way as case concord is determined between a small clause subject and its predicate: through the predication relation itself, or perhaps as a

[22] Brandner (2000) also uses the term "interrogative concord," but in a technically different sense.

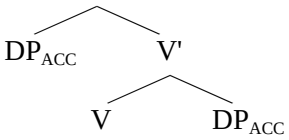
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morphological reflex of an abstract agreement (or matching, see Chomsky 1998) relation.

(52) a.



b.



On the assumption that concord must be established locally (presumably under c-command), the complex predicate analysis provides the necessary configuration for interrogative concord to obtain. Note that interrogative concord appears to be mirrored by "declarative concord" in non-interrogative contexts: The [-wh] counterpart of *was*, the CP-expletive *es* 'it', can only occur with embedded declaratives.

(53) a. **Es** wird behauptet [$_{CP}$ dass Maria Mel Gibson getroffen hat]
it is said that M. Mel Gibson met has
'They are saying that Maria has met Mel Gibson.'

b. ***Es** wird behauptet [$_{CP}$ **wen** Maria getroffen hat]
it is said whom M. met has

Interrogative concord, then, is linked to the embedded CP's predicative character. Depending on the feature specification of its licenser, the head of the complement CP will be formally specified for the feature [±wh]. If the choice is [+wh], complement-internal *wh*-raising will be required for purely syntactic reasons, in order to satisfy checking requirements.[23]

Observe in this context that the *was*-strategy, as opposed to long *wh*-raising, is unavailable with infinitival complement clauses (examples adapted from Höhle 2000:253):

[23] In Chomsky's (1995) framework, overt *wh*-raising is triggered by a strong [Q] feature in C. Chomsky 1998, on the other hand, assumes that raising is triggered by an EPP feature in C, and that a *wh*-expression's uninterpretable [wh] feature must be checked under Q-agreement with an interrogative C. While a detailed discussion of these technical intricacies is beyond the scope of this article, it is worth noting that the validity of the present analysis remains unaffected by any such revisions to the theory of feature checking. In the *was … w* construction, all *wh*-movement is both local and overt, and targets (the specifiers of) interrogative heads.

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(54) a. **Auf wessen Hilfe** glaubt sie sich verlassen zu können?
on whose help thinks she REFL rely to can
'Whose help does she think she can rely on?'
b. *__Was__ glaubt sie **auf wessen Hilfe** sich verlassen zu können?
what thinks she on whose help REFL rely to can

Given the proposed analysis, the illformedness of 54b follows from the assumption that infinitival clauses either lack a CP layer altogether, or are headed by a C whose feature specification does not match that of *was*. The idea that infinitives in German cannot be specified for the feature [+wh] is independently confirmed by the observation that embedded *zu*-infinitives do not normally permit internal *wh*-raising, either (compare Fanselow and Mahajan 1996:142ff.). Note that the finiteness requirement is yet another property that the complement in *was ... w* constructions shares with relative clauses: German differs from English in that it does not allow infinitival relatives as in *Mary is the person to talk to.*

Finally, note that at least some of the verbs that permit the *was ... w* construction also allow embedded yes/no questions.

(55) Glaubst du [$_{CP}$ ob Maria zuhause ist]?
think you if M. at.home is
'Do you think Maria is at home?'

Here, it is conceivable that a null counterpart of *was* originates in matrix object position, and raises to the specifier of the interrogative C.

4.4. A Residual Problem: wh *in situ.*

The assumption that *was* originates in an argument position predicts that it should also occur in situ, and that it should itself be able to license in situ *wh*-phrases. Although individual judgments vary, it appears that these predictions are only partially borne out. Most speakers in fact reject multiple *wh*-questions with *was* in situ, or at least consider them very awkward (compare examples 21a,b from Höhle 2000, which are repeated below).

(21) a. ?*__Wer__ meint __was__, __wen__ wir gewählt haben?
who thinks what whom we elected have
b. ?*Karl meint __was__, __wen__ wir gewählt haben?
K. thinks what whom we elected have

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The virtual absence of in situ *was* has in the past been taken as evidence that *was* is indeed nothing but a "scope marker," and that it must be base-generated in matrix [Spec, CP]. I would like to suggest, however, that the restriction against *was* in situ is a consequence of a more general constraint against certain types of in situ *was*, and hence does not pose a problem for the present analysis. As noted by Fanselow and Mahajan (2000), raising of *was* in multiple *wh*-questions is obligatory whenever *was* is modified. For illustration, consider the examples below (which have been adapted from Fanselow and Mahajan 2000:207):

(56) a. Er hat mir **was** Schönes gesagt
he has me what nice said
'He said something nice to me.'
b. **Was** hat er dir denn Schönes gesagt?
what has he you PRT nice said
'Which nice things did he say to you?'
c. **Wer** hat dir denn **was** Schönes gesagt?
who has you PRT what nice said
= 'Who said something nice to you?'
≠ 'Who said which nice things to you?'

In 56a, *was* is modified by a nominalized adjective, and has an indefinite interpretation (i.e., it is synonymous with *etwas* 'something'). Similarly, modified *was* in *wh*-interrogative clauses such as 56c can only be understood as an indefinite determiner, not as an in situ *wh*-pronoun. In other words, a multiple question reading is not in fact available for 56c. In 56b, on the other hand, *was* is clearly interrogative, and the modifier *Schönes* 'nice'—which must remain in situ—is understood predicatively. The absence of an interrogative reading for *was* in 56c indicates that for modified *was* to be interpreted as a [+wh] interrogative pronoun it must raise to [Spec, CP]; if it remains in situ, it will inevitably receive a non-interrogative indefinite interpretation. Consider now the *was … w* construction. In section 3.2 I showed that *was* cannot plausibly be analyzed as the head of a complex DP. Instead, *was* has been analyzed as a *wh*-pronoun modified by a predicative CP, with which it agrees with respect to the feature [+wh]. However, since modified *was* will only be interpreted as a [+wh] interrogative pronoun if it undergoes raising, we expect in situ *was* to be effectively excluded from the *was … w* construction (with the possible exception of focused *was*, see note 8). Leaving *was* in situ will normally lead to its being construed as an

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indefinite determiner, a possibility that is excluded here on both syntactic and semantic grounds, though.

As regards the licensing of in situ *wh*-expressions by *was*, Haider (2000: 233ff.) observes that the acceptability of such sentences seems to depend on the type of in situ phrase used. Specifically, he notes that only *wh*-elements that quantify over individual terms (such as *wer* 'who' in 57b) can appear in situ in multiple *was … w* questions, but not *wh*-expressions that quantify over higher-order entities.

(57) a. ***Was** hat er **weshalb** geglaubt [$_{CP}$ **wo** Öl zu finden wäre] ?
what has he why believed where oil to find was
b. ?**Was** hat **wer** gemeint [$_{CP}$ **wo** Öl zu finden wäre] ?
what has who thought where oil to find was
'Where did who think that oil was to be found?'

Haider argues that this outcome is exactly as predicted by an independently motivated descriptive generalization to the effect that *wh*-operators that do not quantify over individual terms do not license each other. Since under the present analysis, *was* is interpreted as a quantifier over propositions, we expect it to be unable to license anything other than quantifiers over individuals. In short, whatever the source of the above semantic constraint may be, the failure of *wh*-operators quantifying over higher-order terms to license certain types of *wh*-in situ phrase is not specific to the *was ... w* construction, and hence does not constitute an argument against the present analysis.

5. Conclusion.

I have shown that contrary to what is usually assumed, *was … w* constructions and their putative long-distance movement correlates are neither structurally analogous nor completely synonymous. Instead, the *was … w* construction shares a number of syntactic and semantic properties with *was*-parentheticals, from which it may indeed have derived diachronically (compare Reis 2000). The *was ... w* construction differs from parenthetical questions, though, in that it involves a genuine embedding structure. The embedded clause turns out to be an unselected complement of the matrix verb, and as such can only be construed predicatively. The apparent object expletive *was*, on the other hand, has been analyzed as a θ-marked pronoun. This conclusion is consistent with Rothstein's (1995) claim that true object expletives do not in fact exist. Whether or not the proposed analysis can be extended to *all* apparent object expletives is a question that will be left for future research.

https://doi.org/10.1017/S1470542701003178 Published online by Cambridge University Press

REFERENCES

Authier, Jean-Marc. 1991. V-governed expletives, case theory, and the projection principle. Linguistic Inquiry 22.721–740.
Bayer, Josef. 1996. Directionality and Logical Form. Dordrecht: Kluwer.
Beck, Sigrid, and Stephen Berman. 2000. Wh-scope marking: Direct vs. indirect dependency. In Lutz, Müller, and von Stechow (eds.), 17–44.
Brandner, Ellen. 2000. Scope marking and clausal typing. In Lutz, Müller, and von Stechow (eds.), 45–75.
Cheng, Lisa Lai-Shen. 2000. Moving just the feature. In Lutz, Müller, and von Stechow (eds.), 77–99.
Chomsky, Noam. 1986. Barriers. Cambridge, MA: MIT Press.
———. 1995. The minimalist program. Cambridge, MA: MIT Press.
———. 1998. Minimalist inquiries: The framework. (MIT occasional papers in linguistics, 15). Cambridge, MA: Department of Linguistics and Philosophy, MIT.
Contreras, Heles. 1995. Small clauses and complex predicates. Small clauses, ed. by Anna Cardinaletti and Maria Teresa Guasti, 135–152. San Diego: Academic Press.
Dayal, Veneeta. 1994. Scope marking as indirect wh-dependency. Natural Language Semantics 2.137–170.
———. 1996. Scope marking: In defence of indirect dependency. In Lutz and Müller (eds.), 107–130.
———. 2000. Scope marking: Cross-linguistic variation in indirect dependency. In Lutz, Müller, and von Stechow (eds.), 157–193.
Fanselow, Gisbert, and Anoop Mahajan. 1996. Partial movement and successive cyclicity. In Lutz and Müller (eds.), 131–161.
———, and ———. 2000. Towards a minimalist theory of wh-expletives, wh-copying, and successive cyclicity. In Lutz, Müller, and von Stechow (eds.), 195–230.
Felser, Claudia, and Laura Rupp. To appear. Expletives as arguments: Germanic existential sentences revisited. Linguistische Berichte.
Gamon, Michael. 1995. Partial wh-movement in German: A nonhomogeneous wh-dependency. Proceedings of the 24th Western Conference on Linguistics (WECOL 24), ed. by V. Samiian and Jeannette Schaeffer, 106–119. Fresno: Department of Linguistics, California State University, Fresno.
Haider, Hubert. 1997. Typological implications of a directionality constraint on projections. Studies on universal grammar and typological variation, ed. by Artemis Alexiadou and T. Alan Hall, 17–33. Amsterdam and Philadelphia: John Benjamins.
———. 2000. Towards a superior account of superiority. In Lutz, Müller, and von Stechow (eds.), 231–248.

https://doi.org/10.1017/S1470542701003178 Published online by Cambridge University Press

Heim, Irene, and Angelika Kratzer. 1998. Semantics in generative grammar. Oxford: Blackwell.
Herburger, Elena. 1994. A semantic difference between full and partial wh-movement in German. Paper presented at the Annual Meeting of the Linguistic Society of America, Los Angeles.
Hiemstra, Inge. 1986. Some aspects of wh-questions in Frisian. NOWELE 8.97–110.
Höhle, Tilman. 2000. The w ... w construction: Appositive or scope indicating? In Lutz, Müller, and von Stechow (eds.), 249–270.
Horvath, Julia. 1997. The status of "wh-expletives" and the partial wh-movement construction of Hungarian. Natural Language and Linguistic Theory 15.509–572.
———. 2000. On the syntax of "wh-scope" marker constructions: Some comparative evidence. In Lutz, Müller, and von Stechow (eds.), 271–316.
Kathol, Andreas. 1999. The scope marking construction in German. Lexical and constructional aspects of linguistic explanation, ed. by Gert Webelhuth, Jean-Pierre Koenig, and Andreas Kathol, 357–371. Stanford, CA: CSLI Publications.
Kiss, Katalin. 1991. An argument for movement. Representation and derivation in the theory of grammar, ed. by Hubert Haider and Klaus Netter, 199–215. Dordrecht: Kluwer.
Longobardi, Giuseppe. 1994. Reference and proper names: A theory of N-movement in syntax and logical form. Linguistic Inquiry 25.609–665.
Lutz, Uli, and Gereon Müller (eds.). 1996. Papers on wh-scope marking. Arbeitspapiere des SFB 340, Bericht No. 76. Stuttgart and Tübingen: University of Stuttgart, University of Tübingen, and IBM Germany.
———, ———, and Arnim von Stechow (eds.). 2000. Wh-scope marking. Amsterdam and Philadelphia: John Benjamins.
Mahajan, Anoop. 1990. The A/A-bar distinction and movement theory. Doctoral dissertation, MIT.
———. 1996. Wh-expletives and the syntax of partial wh-movement. In Lutz and Müller (eds.), 163–177.
———. 2000. Towards a unified treatment of wh-expletives in Hindi and German. In Lutz, Müller, and von Stechow (eds.), 317–332.
McDaniel, Dana. 1989. Partial and multiple wh-movement. Natural Language and Linguistic Theory 7.565–604.
Müller, Gereon. 1997. Partial wh-movement and Optimality Theory. The Linguistic Review 14.249–305.
Ouhalla, Jamal. 1996. Remarks on the binding properties of wh-pronouns. Linguistic Inquiry 27.676–707.
Pafel, Jürgen. 2000. Absolute and relative: On scope in German wh-sentences, was ... w-constructions included. In Lutz, Müller, and von Stechow (eds.), 333–358.

https://doi.org/10.1017/S1470542701003178 Published online by Cambridge University Press

Reis, Marga. 2000. On the parenthetical features of German was ... w constructions and how to account for them. In Lutz, Müller, and von Stechow (eds.), 359–407.
Riemsdijk, Henk van. 1983. The correspondence effect and the Empty Category Principle. Studies in generative grammar and language acquisition, ed. by Y. Otsu et al. (eds.), 5–16. Tokyo: Editorial Committee.
Rizzi, Luigi. 1992. Argument/adjunct (a)symmetries. Proceedings of NELS 22, 365–381. Dover, DE: Department of Linguistics, University of Delaware.
———. 1990. Relativized minimality. Cambridge, MA: MIT Press.
Rothstein, Susan. 1995. Pleonastics and the interpretation of pronouns. Linguistic Inquiry 26.499–529.
Sabel, Joachim. 2000. Partial wh-movement and the typology of wh-questions. In Lutz, Müller, and von Stechow (eds.), 409–446.
Simpson, Andrew. 2000. Wh-movement and the theory of feature-checking. Amsterdam and Philadelphia: John Benjamins.
Stechow, Arnim von. 2000. Partial wh-movement, scope marking, and transparent Logical Form. In Lutz and Müller (eds.), 1–36.
———, and Wolfgang Sternefeld. 1988. Bausteine syntaktischen Wissens. Opladen: Westdeutscher Verlag.
Stroik, Thomas. 1996. Extraposition and expletive movement: A minimalist account. Lingua 99.237–251.
Wahba, Wafaa. 1991. LF movement in Iraqi Arabic. Logical structure and linguistic structure: Cross-linguistic perspectives, ed. by C.-T. James Huang and Robert May, 253–276. Dordrecht: Kluwer.
Williams, Edwin. 1997. Lexical and syntactic complex predicates. Complex predicates, ed. by Alex Alsina, Joan Bresnan, and Peter Sells, 13–28. Stanford: CSLI Publications.
Zwart, C. Jan-Wouter. 1994. Dutch is head initial. The Linguistic Review 11.377–406.

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https://doi.org/10.1017/S1470542701003178 Published online by Cambridge University Press