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Uli Lutz, Gereon Müller and Arnim von Stechow (eds.)

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On the Parenthetical Features of German Was...W-Constructions and How to Account for Them

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1. Introduction

In this paper I want to show that there are salient, hitherto unnoticed parallels between German *was...w*-constructions like (1) and integrated parenthetical *wh*-constructions like (2)–(3), and that they constitute a serious challenge to the way complex *wh*-constructions have so far been handled in generative theory.

- (1) Was glaubst du, wo er jetzt wohnt ?
what believe you where he now lives
'Where do you believe that he lives now?'
- (2) Wo glaubst du, wohnt er jetzt ? / Wo wohnt er jetzt, glaubst du ?
where believe you lives he now / where lives he now believe you
'Where do you think he lives now? / Where does he live now, do you think?'
- (3) Was glaubst du, wo wohnt er jetzt ? / Wo wohnt er jetzt, was
what believe you where lives he now / where lives he now what
glaubst du ?
believe you
'Where do you think he lives now? / Where does he live now, do you think?'

The plot is the following: I shall first describe the *was*-parenthetical construction (3) which is central for the comparison, separating it from 'appositive' *was*-constructions on the one hand, and proving its 'integrated parenthetical' nature on the other (section 2). Then I shall turn to the *was...w*-construction, reviewing first the features that are distinctive vis-à-vis the *was*-parenthetical construction;

*This paper developed out of a talk given at the Tübingen Workshop on Partial *wh*-Movement (12/1995). The version presented here is an extensively revised version of Reis (1996). Thanks go to Gereon Müller for prodding me into giving the workshop talk, and to all the colleagues providing useful comments on it and/or various versions of this paper: to the workshop audience, the members of my SFB-research project, the participants of the Groningen-Tübingen workshop (11/1998), and in particular to Tilman N. Höhle, Uli Lutz, Jürgen Pafel, Inger Rosengren, and Hubert Truckenbrodt.

but shared by 'normal' *wh*-extraction constructions (= *w...daß*-constructions) like (4), thus motivating the traditional 'partial *wh*-movement' viz. LF-extraction analysis of *was...w*-constructions (section 3).

- (4) Wo glaubst du, daß er jetzt wohnt?
 where believe you that he now lives
 'Where do you believe that he lives now?'

However, as I shall show in section 4, there are just as many salient features *was...w*-constructions share with *was*-parenthetical rather than with *w...daß*-constructions. How do we account for this correlation? As a preliminary step, I shall ask whether the two constructions could be historically related such that the *was*-parenthetical features of *was...w*-constructions are remnants of a grammaticalization process; we shall see that a plausible scenario can indeed be constructed (section 5). In section 6, I shall turn to the central question: How can the correlation between *was...w*-constructions and *was*-parenthetical constructions be represented in grammar without losing sight of their parallels to *w...daß*-constructions? Adopting the classical position that this question is, in principle, to be answered independently of historical considerations, I will first show that relegating the parenthetical features of *was...w*-constructions to the periphery of grammar is neither justified nor helpful. Then I will discuss two core grammar proposals that turn on the primary 'selectional' *w...w*-features relating *was...w*- and *was*-parenthetical constructions (as opposed to the normal *w...daß*-construction) and apparently also shared by the so-called 'w-copy construction' (5),

- (5) Wo glaubst du, wo er jetzt wohnt?
 where believe you where he now lives
 'Where do you believe that he lives now?'

and show that they are inadequate if the whole range of constructions exhibiting parallel behavior are considered: we either lose (part of) the parallels to these constructions, the parallels to *w...daß*-constructions, or both. Taking this network of constructional parallels as the standard of descriptive adequacy to be met, alternative solutions along orthodox lines do not seem to be available: the current, vastly differing analyses of the constructions in question provide no conceptual basis for it. As a consequence, I will present a proposal that makes use of a number of unorthodox premises and notions, but covers the facts reasonably well. Section 7 contains a summary and some suggestions as to which lines of research might be pursued in order to get a clear picture of what the grammar of complex *wh*-constructions is really like.

In sum, the primary aim of this paper is unabashedly descriptive: I want to expose in detail the complex regularities tying the *was...w*-construction to the entire range of complex *wh*-constructions and their parenthetical kin. If convincing, however, these findings have more far-reaching consequences: Since by relating *was...w*-constructions to integrated parenthetical constructions a number of puzzling, and hitherto unrelatable features of *was...w*-constructions fall into place, this correlation clearly constitutes a "descriptive generalization every

theory has to account for." Accepting this obligation, however, will have considerable theoretical consequences, for including parenthetical *wh*-constructions and their kin changes the overall picture of complex *wh*-constructions in ways that the classical extraction approach to this central area of generative theorizing cannot survive unscathed. My tentative descriptive proposal will testify to this conclusion.

2. Delimiting Integrated Parenthetical Was-Constructions

As is well known, languages may have complex *wh*-question constructions not involving *wh*-extraction but an 'indirect dependency' between two *wh*-clauses mediated by a specific *wh*-element. The example most often cited in the literature is Hindi (see Dayal (1994; 1996)), but German also has constructions of this kind: there are *was*-interrogative constructions which are bona fide non-extraction cases, where the interrogative *was*-clause, by virtue of *was*, is anaphorically or cataphorically related to an interrogative clause it is in construction with.

These constructions come in two varieties:

2.1. Unintegrated (Appositive) Was-Constructions

The variety that has found some attention in the literature (cf. especially Höhle (1996)) are so-called 'appositive' *was*-question constructions (6). Their defining formal feature is that they are 'unintegrated,' that is, the *was*-clause forms an autonomous prosodic domain vis-à-vis the related *wh*-clause: each has a Focus-Background Structure and an intonation contour of its own (which is, in the case of the *was*-clauses, either colon intonation or the falling intonation characteristic for *wh*-interrogatives). Semantically, the related *wh*-clause functions somewhat like an "apposition elucidating *was*" (a notion made precise by Dayal (1994), see also von Stechow (1996)), whence the name (accorded them by Höhle (1989)).

- (6) a. Was glaubst DU (\):¹ Wann ist GOETHE geboren?
 what believe you when is Goethe born
 'What is your guess: What's Goethe's birthday?'
 b. Was GLAUBst du (\): Wird Oskar gewählt oder nicht?
 what believe you becomes O. elected or not
 'What's your opinion: Will Oskar be elected or not?'
 c. Wann ist GOETHE geboren? (\) Was glaubt PETER?
 when is Goethe born what believes P.
 'What's Goethe's birthday? What does Peter think?'
 d. Wird Oskar gewählt? (\) Was GLAUBst du, Rudolf?
 becomes O. elected what believe you R.
 'Will Oskar be elected? What do you think, Rudolf?'

¹(\) indicates the intonation break between the clauses; the difference between the more level 'colon' intonation (as in (6-ab)) and the intonation contours in (6-c) (more of a falling contour)

Typically, the related *wh*-clause is a main clause *wh*-interrogative (6-ac) or *yes-no*-interrogative (6-bd); marginally, however, interrogative verb-final clauses like (7), which have the force of deliberative questions, may also occur in this slot (8).² Since cases like (7) are also true main clauses in terms of sentence grammar (see Reis (1985, 282f.)), (interrogative) main clause status seems to be a necessary condition for *wh*-clauses in appositive *was*-question constructions.

- (7) a. Ob er wohl morgen kommen wird ?
 whether he M[odal]P[article] tomorrow come will
 'Will he come tomorrow, I wonder?'
 b. Wen er wohl gestern gesehen hat ?
 whom he MP yesterday seen has
 'Who did he see yesterday, I wonder?'
- (8) a. ?Was glaubst du (\): Ob er wohl morgen kommen wird ?
 Ob er wohl morgen kommen wird ? (\) Was glaubst du ?
 'Will he come tomorrow or won't he? What do you think?'
 b. ?Was glaubst du (\): Wen er wohl gesehen hat ?
 Wen er wohl gesehen hat ? (\) Was glaubst du ?
 'What do you think concerning the question I ask myself who he saw?'

Likewise, the *was*-clauses figure as interrogative main clauses: Syntactically, they always exhibit *wh*-main clause verb order which is V2 in the normal case (yielding 'normal' informational *was*-questions; see (6), (8)), and V-final in the deliberative case (7) (yielding deliberative *was*-questions; see (9-a)). Pragmatically, they clearly behave as independent main clauses as well: they have independent erotetic force, see especially (6-bd), (8), (9-a); and they may contain modal particles (9-ab). Note, moreover, that appositive *was*-clauses may be syntactically complex (10), allow more than the typical predicates of thinking, believing and saying (again (10)), are not restricted to second and third person subjects (11), and may even contain multiple *wh*-phrases (12).³ The diagnostic value of these properties will become apparent below.

- (9) a. Wird Oskar gewählt ? Was wohl Rudolf glaubt ?
 becomes O. elected what MP R. believes
 'Will Oskar be elected? What does Rudolf think, I wonder?'

and (6-d) (more of a rise contour) is disregarded. - As usual, capital letters mark the syllable bearing main stress (which in turn marks the 'focus exponent').

²I am indebted to Uli Lutz and Franz d'Avis for drawing my attention to such cases. Note that a sequence of anaphorically related questions, as found in *was*-question constructions, is subject to pragmatic coherence conditions, especially regarding speaker- vs. hearer-orientation, that may limit the kind of interrogative clauses *was*-clauses may occur with. This explains why the sequences in (8) are at least marked (deliberative questions are strongly speaker-directed, whereas the *was*-clause represents a 'normal,' hearer-directed question).

³The options illustrated in (8)-(11) seem to be much more restricted for initial *was*-clauses. The reasons for this are unclear.

- b. Was glaubst du denn nun: Wird Oskar gewählt oder nicht ?
 what believe you MP now becomes O. elected or not?
 'Now, what do you think: will Oskar be elected or won't he?'
- (10) a. Wann ist Goethe geboren ? Was scheint Dir richtig zu sein ?
 when is Goethe born what seems you_{dat} right to be
 'What's Goethe's birthday? Which date seems right to you?'
 b. Wann ist Goethe geboren ? Was glaubst du, daß Peter glaubt ?
 when is Goethe born what believe you that P. believes
 'What's Goethe's birthday? What do you think is Peter's guess?'
 c. Wer gewinnt, er oder sie ? Was fändest Du besser ?
 who wins he or she what found_{subj.II} you better
 'Who will win, him or her? Which option would you prefer?'
- (11) Na, was glaube ICH: Wer gewinnt die Wahl ?
 D[iscourse]P[article] what believe I who wins the election
 'Guess what I believe: Who will win the election?'
- (12) Wann ist Adorno geboren ? Was glaubt wer in dieser Runde ?
 when is Adorno born what believes who in this round
 'What's Adorno's birthday? Who believes what in this group?'

In sum, appositive *was*-question constructions are paratactic constructions, occurring only in root position, with prosodic autonomy implying syntactic as well as pragmatic or 'informational' autonomy as usual (see Brandt (1990)) for both clauses involved.

Typically, appositive *was*-constructions are cases of 'sequential questions' as illustrated in (6), (8)-(12), the *was*-clause being in initial or final position. Marginally, there are also cases where the *was*-clause is inserted into the related *wh*-clause (13),

- (13) WOHIN (\), was glaubst DU (\), ist er gegangen ?
 where-to what believe you is he gone
 'What do you think: Where did he go?'

and there are cases where the related clause is a declarative (14):

- (14) a. Jetzt muß man (\), was/wer SONST wäre besser ? (\),
 now must one what/who else were_{subj.II} better.
 Gerhard wählen
 G. elect
 'Now - what/who else would be better? - one must elect Gerhard.'
 b. Natürlich gibt es Ärger mit ihm (\), was glaubst du denn ?!
 naturally gives it trouble with him what believe you MP
 'Of course he'll raise a stink, no question about that.'

Since cases like (13) are like typical appositive *was*-constructions in all other respects - in particular, despite their 'parenthetical' position, they may share the crucial feature of prosodic autonomy of the clauses involved, which makes them

'unintegrated' parentheticals, so to speak –, they can undoubtedly be counted as (medial) instances of this construction. As for (14-b), this may be less clear, for although the *was*-clause is again prosodically autonomous, *was* does not refer to the related clause in the same way as in (6ff.), so one would have to show first that there is really the same *was* involved (see also d'Avis (1998)). Since this issue is not vital to the argument (the illocutionary independence of the *was*-clause vis-à-vis the related clause being already established in principle by (6-bd), (8), (9-a)), I will just leave it open here.

2.2. Integrated (Parenthetical) Was-Constructions

The second variety, hardly ever mentioned in the literature,⁴ but much more interesting with respect to *was...w*-constructions, are *was*-question constructions like (15)–(16).⁵ For reasons that will become obvious immediately, I will call them 'integrated parenthetical *was*-constructions,' the parenthetical part being the *was*-clause.

- (15) a. Wohin ist er gegangen, was glaubst du?
 where-to is he gone what believe you
 b. Wohin was glaubst du, ist er gegangen?
 where-to what believe you is he gone
 c. Was glaubst du, wohin ist er gegangen?
 what believe you where-to is he gone
 a.-c. 'Where do you believe did he go?'
- (16) a. ?Wird er morgen kommen, was glaubst du?
 will he tomorrow come what believe you
 b. ?Wird er was glaubst du, morgen kommen?
 will he what believe you tomorrow come
 c. Was glaubst du, wird er morgen kommen?
 what believe you will he tomorrow come
 a.-c. 'Will he come tomorrow, do you think?'

Looking at their major formal properties, listed in (17),

- (17) Major formal properties of integrated parenthetical *was*-constructions:
 (i) *was*-parentheticals are hosted by bona fide main clauses;
 (ii) they occur in clause-initial, clause-medial, and clause-final position (although initial position is by far the best); cf. (15)–(16);
 (iii) they occur with *wh*-interrogative clauses as well as *yes-no*-interrogative clauses; cf. (15)–(16);

⁴I became aware of this type of parentheticals thanks to Ilse Zimmermann (see Reis (1995b, 67)).

⁵There is considerable variation in judgements of *was*-parenthetical constructions involving *wh*- vs. *yes-no*-clauses as well as initial vs. medial vs. final parenthetical clauses. All ratings in the text represent my own judgements.

- (iv) their prosodic autonomy vis-à-vis the host clause is much reduced, which manifests itself in three correlating properties:⁶
 a) there is no really explicit comma intonation,
 b) they are integrated into the Focus-Background-Structure of their host clause,
 c) they may never contain the main accent of the whole clause.

we do not find a SYNTACTIC surface difference between parenthetical *was*-constructions and their appositive counterparts: both are paratactic (in the sense that neither clause occupies a licensed position in the other), both occur in root position only (17i-ii), both allow all kinds of interrogative root clauses to cooccur with the *was*-clause (17iii).⁷ Likewise, the SEMANTIC relation between *was* and the related *wh*-clause is the same: what *was* asks for, is elucidated by (the set of possible answers to) the second question. There are, however, major PROSODIC differences (17iv): unlike appositive *was*-constructions, parenthetical *was*-constructions are prosodically integrated (17iv-ab), with the *was*-clause being always unfocused (17iv-c), and these differences correlate with a number of distinctive PRAGMATIC effects:

First, the focusing difference induces a difference in communicative weight: the *was*-clause is always less prominent than the related *wh*-clause. Thus, in terms of communicative weight, parenthetical *was*-constructions are equivalent, roughly, to adverbial constructions (18) or, more accurately, to V1-parenthetical constructions (19) rather than to the corresponding appositive *was*-constructions.

- (18) a. Wohin ist er deiner Meinung nach gegangen?
 where-to is he your opinion after gone
 'In your opinion, where did he go?'
 b. Wird er deiner Einschätzung nach morgen kommen?
 will he your evaluation after tomorrow come
 'In your opinion, will he come tomorrow?'
- (19) a. Wohin ist er glaubst du, gegangen?
 where-to is he believe you gone
 'Where did he go, do you think?'
 b. Wird er glaubst du, morgen kommen?
 will he believe you tomorrow come
 'Will he come tomorrow, do you think?'

⁶When first dealing with *was*-parentheticals (Reis (1995b, 67n.38)), I underrated the extent to which, especially in initial cases, their prosodic autonomy may be reduced to yield parenthetical structures that are just as well prosodically integrated as V1-parenthetical structures.

⁷Note that there are also *was*-parenthetical constructions involving deliberative V-final clauses (albeit even more marginally than in the appositive case):

- (i) a. ?Was glaubst du, ob er wohl kommen wird?
 what believe you whether he MP come will
 'Will he come or won't he, do you think?'
 b. ?Was glaubst du, wen er wohl gesehen hat?
 what believe you whom he MP seen has
 'What do you think concerning the question I ask myself who he saw?'

Second, the *was*-clause, while forcing (via *was*) the sentence mood of the whole to be semantically interrogative, has no communicative force of its own: the illocutionary force of the host clause always prevails (thus *ja/nein* 'yes/no' are clearly felicitous answers to (16), whereas with their appositive counterparts this is only partly the case); the same is true for the effects of modal particles and other communicative modifiers, which consequently may appear in the host clause only (for examples see (39f.) below). This shows that the *was*-clause proposition is not merely informationally less prominent vis-à-vis the host clause proposition, but has practically lost its propositional character: rather its effect is putting the host clause proposition into the respective attitudinal perspective of the *was*-clause subject. In other words, prosodic integration of the *was*-clause in the sense of (17iv) goes along with interpretational integration, whereas in appositive constructions the *was*-clause remains interpretationally self-contained.

Now, the pragmatic effects just noted are typical for all constructions containing I[ntegrated] P[arenthetical]s, that is, constructions containing a clause for which (17iv) holds (see also Reis (1995a, 47)). In contemporary German, we find various subtypes of clausal IPs: V1-IPs as in (2), (19)–(20), the most important subtype, *wie*-IPs (21), and *so*-IPs (22); as the examples show, the insertion site of the IPs may not only be clause-medial, but also clause-peripheral.

- (20) a. Hans (scheint mir) wird (scheint mir) kommen (scheint mir)⁸
 H. (seems me_{dat}) will (seems me_{dat}) come (seems me_{dat})
 'Hans will come, it seems to me.'
- b. Wird Hans (glaubst du) morgen kommen (glaubst du)?
 will H. (believe you) tomorrow come (believe you)
 'Will Hans come, do you think?'
- (21) Es (/Wie mir scheint) hat Hans (wie mir scheint) keine Zeit (wie
 it (/as me_{dat} seems) has H. (as me_{dat} seems) no time (as
 mir scheint)
 me_{dat} seems)
 'Hans has no time, it seems to me.'
- (22) Hans hat (so scheint mir) keine Zeit (so scheint mir)
 H. has (so seems me_{dat}) no time (so seems me_{dat})
 'Hans has no time, it seems to me.'

These subtypes differ in major respects: (i) while V1-IPs occur in declarative and in interrogative clauses alike, cf. (20) vs. (2), (19), *wie*-IPs and *so*-IPs occur in declarative clauses only (21)–(22); (ii) prosodic integration seems to be obligatory for V1-IPs, but optional for *so*- and *wie*-IPs (see Reis (1995b, 30f.; 66)). But rather than dwelling on these and other differences,⁹ let me stress the relevant parallels with the *was*-constructions in question:

⁸The analysis of the prefinite instances in (2) and (20-a) as V1-IP constructions rather than V2-extraction constructions is defended in Reis (1995a; 1995b).

⁹See Reis (1995b); see also Pittner (1993; 1995), Zimmermann (1994), Brandt (1994).

First, as shown by (i), introductory elements (*so*, *wie*) may impose cooccurrence limits on IPs; hence, the restriction of integrated *was*-clauses to interrogative host clauses is nothing unusual. Second, as shown by (ii), the coexistence of appositive and integrated *was*-question constructions need not disturb us: optional prosodic integration is nothing unusual either. Third, and most importantly: Whenever there is prosodic integration in the sense of (17iv), there are also the pragmatic effects described above, for V1-IPs, *so*-IPs, *wie*-IPs and integrated *was*-clauses alike, so the prosodic features (17iv-a-c) unifying them are more than just surface parallels. In what ways, is not too hard to understand: Since Focus-Background domains correspond to information units (see Brandt (1990)), the fact that two clauses form just one Focus-Background domain (17iv-ab), forces an interpretation for them as an informationally integrated whole. And the fact that the clausal inserts in question are communicatively as inactive/subordinate as described (which is most likely a reflex of the grammatical status of parenthetical clauses as 'late' inserts, preventing them i.a. to participate in Focus-Background Structure) implies that (17iv-c) must hold, and vice versa.

These parallels in behavior suggest, of course, that integrated *was*-clauses have the same grammatical status as bona fide IPs, in other words that they are integrated *was*-parentheticals (*was*-IPs). I take it, then, that *was*-constructions like (15)–(16) are true integrated parenthetical *was*-constructions (henceforth '*was*-IP constructions' for short).

2.3. Further Evidence for the Parenthetical Status of Integrated Was-Clauses

The parenthetical use-value just described is the primary, but not the only, diagnostic property of IPs. Related to it are a number of distinctive distributional features, in particular the following:

- (23) *Further distinctive characteristics of IPs:*
- (i) specific selectional restrictions on IP-predicates;
 - (ii) no syntactic complexity, only (restricted) IP-iteration;
 - (iii) no first person IPs in interrogatives;
 - (iv) no main clause specific material;
 - (v) no stress/focus-related material.

If integrated *was*-clauses are indeed IPs, then they should share these properties. This they clearly do:

As for (23-i), the most important IP-feature, *was*-IPs share ALL the selectional restrictions on IP-predicates (24) that the other IPs have in common (cf. Reis (1995a, 61)):

- (24) *IP-Predicates*
- (i) always select a propositional argument, which is lexically specified as a finite sentential argument in structural object position
 - (ii) include
 - (nonnegative/unnegated) verbs of saying, thinking, believing

- (iii) do not include
- preference predicates
 - (strong) factive predicates
 - negative/negated predicates

(iv) Appendix: IP-Predicates do not include adjectival predicates.

Thus, conforming to (24-ii), the verbs appearing in *was*-IPs are the same as in other IPs: simple verbs of saying, thinking, believing (*sagen*: 'say,' *glauben*, *denken*, *meinen*: 'think,' 'believe,' *schätzen*: 'guess'). Particularly telling is, of course, that, conforming to (24-iii), they also disallow the same verbs, illustrated here by comparison with V1-IPs; cf. (25)-(30):¹⁰

- (25) PREFERENCE PREDICATES: *besser/das beste sein* ('be better/best'), *ratsam sein* ('be advisable'), *jem. lieber sein* ('be preferable for s.o.'). optative *wollen/wünschen/möchte* ('wish'), *vorziehen* ('prefer'), ...
- a. Wohin/Dorthin (*ist besser) geht er zu Fuß (*ist besser) ?/.
where-to/there-to (is better) goes he on foot (is better)
- b. Wohin/Dorthin (*wünschte Hans) wäre er zu Fuß gegangen
where-to/there-to (wished H.) were_{subj.II} he on foot gone
(*wünschte Hans) ?/.
(wished H.)
- (26) a. (*Was ist besser) wohin (*was ist besser) geht er zu Fuß
(what is better) where-to (what is better) goes he on foot
(*was ist besser) ?
(what is better)
- b. (*Was ist besser) soll er (*was ist besser) zu Fuß gehen oder
(what is better) should he (what is better) on foot go or
nicht (*was ist besser) ?
not (what is better)
- c. (*Was wünschte Hans) wohin (*was wünschte Hans) wäre
(what wished H.) where-to (what wished H.) were_{subj.II}
er zu Fuß gegangen (*was wünschte Hans) ?
he on foot gone (what wished H.)
- (27) (STRONG) FACTIVE PREDICATES: *bedauern* ('regret'), *berücksichtigen*
('take into account'), *sich entsetzen* ('be appalled'), *jem. zürnen* ('be angry with s.o.'). *schön/toll/furchtbar ... sein* ('be nice/super/awful ...'), ...
- a. Wohin/Dorthin (*bedauerte sie) ging Hans (*bedauerte sie) ?/.
where-to/there-to (regretted she) went H. (regretted she)

- b. Wohin/Dorthin (*berücksichtigte sie) ging Hans
where-to/there-to (took-into-account she) went H.
(*berücksichtigte sie) ?/.
(took-into-account she)
- (28) a. (*Was bedauerte sie) wohin (*was bedauerte sie) ging Hans
(what regretted she) where-to (what regretted she) went H.
(*was bedauerte sie) ?
(what regretted she)
- b. (*Was berücksichtigte sie) wohin (*was berücksichtigte sie) ging Hans (*was berücksichtigte sie) ?
(what took-into-account she) where-to (what took-into-account she) went H. (what took-into-account she)
- (29) NEGATED PREDICATES (by *nicht* ('not'), *keineswegs* ('by no means'), *kein-* ('nobody'), etc.); NEGATIVE PREDICATES: *bezweifeln* ('doubt'), *verbieten* ('forbid'), *vergessen* ('forget'), *verheimlichen* ('keep (it) a secret'), *unglaublich/zweifelhaft sein* ('be unbelievable/doubtful'), ...
- a. Mit wem/ihm ist sie (*glaubt keiner) verheiratet (*glaubt
with whom/him is she (believes noone) married (believes
keiner) ?/.
noone)
- b. Mit wem/ihm ist sie (*bezweifelst du) verheiratet (*bezweifelst
with whom/him is she (doubt you) married (doubt
du) ?/.
you)
- (30) a. (*Was glaubt keiner) mit wem ist sie (*was glaubt keiner)
(what believes nobody) to whom is she (what believes nobody)
verheiratet (*was glaubt keiner) ?
married (what believes nobody)
- b. (*Was bezweifelst du) mit wem ist sie (*was bezweifelst du)
(what doubt you) to whom is she (what doubt you)
verheiratet (*was bezweifelst du) ?
married (what doubt you)

In addition, IP-predicates are subject to the categorial restriction (24-iv), which partially overlaps with (24-iii): all adjectival predicates seem to be impossible, no matter whether they are preference adjectives (like *ratsam*, *besser*, see (25)), strong factive adjectives (like *schön*, *toll*, see (27)), negative adjectives (like *zweifelhaft*, see (29)), or something else; cf. the non-factive and weak factive cases in (31)-(32):

- (31) Wohin geht er (*ist klar/wahr) zu Fuß (*ist klar/wahr) ?
where-to goes he (is clear/true) on foot (is clear/true)

¹⁰Care should be taken to exclude the verbum dicendi readings that certain preference predicates (*wünschen*, and to a lesser extent *wollen*) and many strong factives allow. In these readings, they do occasionally appear in IP-structures.

- (32) (*Was ist klar/wahr) wohin geht er zu Fuß (*was ist klar/wahr) ?
 (what is clear/true) where goes he on foot (what is clear/true)

Turning now to (23-ii), the V1-IP cases in (33) illustrate that IPs tend to be syntactically simple; in-particular, IPs containing a finite complement clause are unacceptable (see Reis (1995a, 51f.; 76)). Again, *was*-IPs share this property; cf. (34):

- (33) a. Was/Das (*glaubt sie er meint) wird er morgen tun
 what/that (believes she he thinks) will he tomorrow do
 (*glaubt sie er meint) ?/.
 (believes she he thinks)
- b. Was/Das (??glaubt sie, daß er meine) wird er morgen
 what/that (believes she that he thinks_{subj.II}) will he tomorrow
 tun (?*glaubt sie, daß er meine) ?/.
 do (believes she that he thinks_{subj.II})
- (34) a. (*Was glaubt sie er meint) was wird er morgen tun (*was
 (what believes she he thinks) what will he tomorrow do (what
 glaubt sie er meint) ?
 believes she he thinks)?
- b. (*Was glaubt sie, daß er meine) was wird er morgen
 (what believes she that he thinks_{subj.II}) what will he tomorrow
 tun (?*was glaubt sie, daß er meine) ?
 do (what believes she that he thinks_{subj.II})

Combination with further V1-IPs, however, is possible, again for *was*-IPs and other IPs alike; cf. (35)–(36):

- (35) a. Welchen Auftrag meint er glaubst du wird sie akzeptieren ?
 which job thinks he believe you will she accept
 'Which job does he think do you believe, she will accept?'
- b. Diesen Auftrag wird sie glaubst du meint er, akzeptieren
 this job will she believe you thinks he accept
 'This job she will accept, you believe he thinks.'
- (36) a. Was meint er glaubst du, welchen Auftrag wird sie akzeptieren ?
 what thinks he believe you, which job will she accept
- b. Welchen Auftrag wird sie akzeptieren, was meint er glaubst du ?
 which job will she accept, what thinks he believe you
- a-b. 'Which job does he think do you believe, will she accept?'

As for (23-iii), the V1-IP cases in (37) show that IPs in first person are incompatible with interrogative host clauses.¹¹ Again, the same is true for *was*-IPs (38).

¹¹As a rule, the subject in interrogative IPs is second person; third person, however, is not impossible:

- (37) [Na rat mal:] Wen (*glaube ich) wird sie (*glaube ich) besuchen ?
 [DP guess MP:] whom (believe I) will she (believe I) visit
- (38) [Na rat mal:] (*Was glaube ich,) wen wird sie besuchen (*was
 [DP guess MP:] (what believe I) whom will she visit (what
 glaube ich) ?
 believe I)

Turning finally to (23iv-v), it has already been noted (section 2.2) that integrated *was*-clauses, in keeping with their 'parenthetical' interpretation, may neither contain main-clause specific material like modal particles, discourse particles, etc. (39), nor bear main stress/focus (17iv-c); as a consequence, stress-/focus-related elements like so-called focus particles are also disallowed (40).

- (39) a. *Was glaubst du denn/eigentlich, wohin ist er, gegangen ?
 what believe you MP/MP where-to is he gone
 [* if (17iv) holds]
- b. *Wohin was glaubst du denn/eigentlich, ist er gegangen ?
 where-to what believe you MP/MP is he gone
 [* if (17iv) holds]
- c. *Wohin na was glaubst du, ist er gegangen ?
 where-to DP what believe you is he gone [* if (17iv) holds]
- (40) *Wohin was glaubst nur DU, ist er gegangen ?
 where-to what believe only_[focus pt.] you is he gone [* if (17iv) holds]

As illustrated by the V1-IP cases in (41)–(42), these are typical IP-restrictions, too:

- (41) a. *Wohin ist er gegangen, glaubst du denn/eigentlich ?
 where-to is he gone believe you MP/MP
- b. *Wohin na glaubst du, ist er gegangen ?
 where-to DP believe you is he gone
- (42) *Wohin ist er gegangen, glaubst nur DU ?
 where-to is he gone believe only_[focus pt.] you

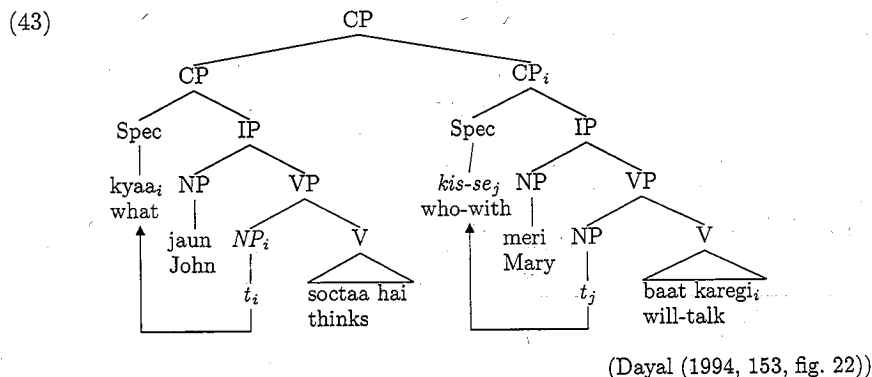
- (i) a. Wohin ist er gegangen, (was) glaubt sie ?
 where-to is he gone (what) believes she
 'Where does she think did he go?'
- b. ?An wen, (was) würde sie sagen, wird Karl sich wenden ?
 on whom (what) would she say will K. himself turn
 'Who would she say that Karl will turn to?'

For an attempt to relate this (plus the exclusion of first person) to the particular use-value of IPs interacting with interrogative sentence mood, see Reis (1995a, 40f.; 73f.; 1995b, 55f.). Note that *was*-IPs also seem to require present tense (this was pointed out to me by Uli Lutz), which is in keeping with the more general observation (inspired by an even more general hypothesis concerning the restrictions on IP-clauses, suggested by Hubert Truckenbrodt, p.c.) that *was*-IPs (and IPs in general) are referentially bound to the immediate utterance situation.

In sum, integrated *was*-clauses exhibit all the diagnostic characteristics of integrated parentheticals, thus underlining their IP-status. Simultaneously, these characteristics are distinctive vis-à-vis the appositive *was*-construction (cf. for example (9)–(14) above), thus underlining the necessity of keeping the two constructions carefully apart.

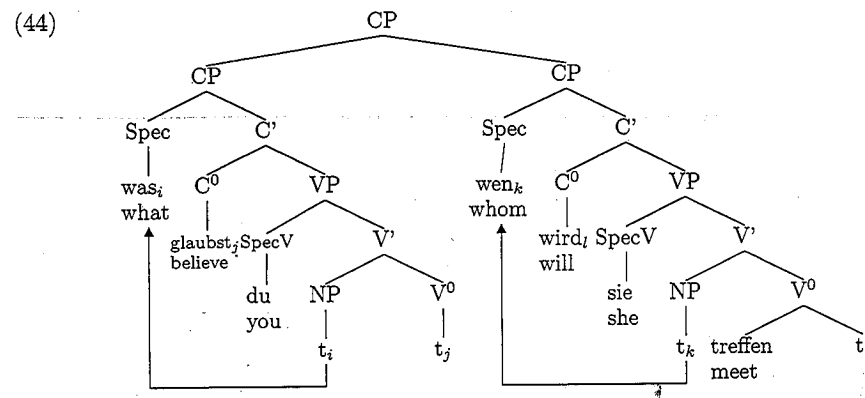
2.4. A Few Words on the Grammar of Was-IP Constructions

What then is the structure of *was*-IP constructions? Since the grammar of parentheticals – integrated or not – is more or less unknown, there is very little we can say for sure: Obviously, (i) the host clause figures as a main clause structure, (ii) the *was*-parenthetical is added/inserted (in)to it at some level, which in view of the parallels with V1-IPs is probably the level at which (or close to which) discourse relations are computed (Reis (1995b, 76f.); see also Espinal (1991)); (iii) the anaphoric relation between the initial *was* in the parenthetical clause and the host clause must be recoverable in some way, in the worst case (but not necessarily¹²) by formally marking it; (iv) in the case of IPs, the parenthetical clause boundaries will not be prosodically marked. But even though the picture is sketchy, one thing is clear: The superficial syntactic structure of initial *was*-IP constructions, which arise in (or close to the level of) discourse grammar, looks exactly like the superficial syntactic structures resulting from Dayal's (1994) analysis of 'scope marking' constructions arising in sentence grammar: the *was*-clause and the *wh*-clause are asyndetically linked at the sentential level;¹³ cf. (43)–(44).



¹²Given the fact that *was*-clauses are always at least in an adjacency relation to the respective interrogative clause, the anaphoric relationship may well be induced by pragmatic means (coherence requirements on well-formed discourse and/or the Gricean maxim of relevance), thus proving it unnecessary to induce this relation by formal marking (say by coindexing). In the case of integrated parentheticals, the pragmatic pressure is even greater, for Focus-Background domains correspond to information units, thus forcing an interpretation for the two clauses in question as a completely integrated whole.

¹³Dayal intended (43) to be a subordinate structure, *kyaa/was* acting like a pleonastic element (as such comparable with German *es*-'correlates') coindexed with the adjoined complement clause. But since the same type of CPs are involved, CP-adjunction to CP is structurally indistinguishable from asyndetic CP-coordination.



Perhaps Dayal's structure is not entirely correct even for the respective construction in Hindi.¹⁴ But assuming that some version of her 'indirect dependency approach' is viable for it, we may conclude that sentence grammar potentially licenses a (prosodically integrated) scope marking construction which differs from the German *was*-IP construction primarily in one respect – the *wh*-clause is dominant/main clause in the latter, but not (necessarily) in the former construction, thus corresponding to the different levels where the *was*-clause comes in – which does not manifest itself in overt structural differences at all. This is, of course, a suggestive constellation for synchronic analogical processes as well as historical reanalysis, to which I shall come back in sections 5, 6.

What about the semantic interpretation of *was*-IP constructions? Given the syntactic similarities just mentioned, it is not surprising that the interpretation supplied by Dayal (1994) for Hindi style scope-marking constructions (among which she includes the German *was...w*-construction proper) is also approximately suitable for *was*-IP constructions, likewise for their unintegrated ('appositive') counterparts.¹⁵ Whether it is also correct for the *was...w*-construction proper, is a question I will leave open here (but see Beck & Berman (1996)).

3. Was...W-Constructions I: Parallels to Wh-Extraction Constructions

Let us now turn to our central object of desire: the *was...w*-construction proper as exemplified in (1) and (45).

¹⁴Given certain correlations between types of clause-linkage and Focus-Background domains (judging from German, unreduced CPs adjoined to or conjoined with CPs always form domains of their own, but complement clauses in complement constructions including those containing 'correlates' do not), Dayal's structure is not above suspicion. Note, however, that the point I am making depends on nothing but surface similarity (which would also hold if the adjunction site of the interrogative clause in (43) were different).

¹⁵For a more careful evaluation of her approach vis-à-vis the semantics of 'sequential questions,' including integrated parenthetical ones, see Pafel (1996).

- (45) Was glaubst du, wohin er gegangen ist ?
 what believe you where-to he gone is
 'Where do you think that he went?'

Just like the *was*-IP construction, it consists of a *was*-clause containing a *-wh*-predicate and a *+wh*-clause, and they are both prosodically integrated in the sense of (17iv-ab). But there are a number of conspicuous differences:

First and foremost, the *was*-clause, which is always initial, combines with a verb-final *wh*-clause that is syntactically and semantically a bona fide subordinate clause. This, in itself, is glaringly different from *was*-IP constructions, where the related *wh*-clause must be a main clause.

Second, *was...w*-constructions are formed with *wh*-interrogatives only, i.e., there are no *was...w*-constructions like (46), where the *ob*-clause is a true subordinate counterpart of interrogative VI-main clauses:¹⁶

- (46) *Was glaubst du, ob er nach Paderborn gegangen ist ?
 what believe you whether he to Paderborn gone is

Third, *was...w*-constructions may be embedded (47), whereas constructions containing *was*-IPs may not (48):

- (47) Hans weiß, was sie glaubt, wieviel das kostet
 H. knows what she believes how-much this costs
 'Hans knows how much she believes that this costs.'

- (48) a. *Hans weiß, was glaubt sie, wieviel kostet das
 H. knows what believes she how-much costs this
 b. *Hans weiß, was sie glaubt, wieviel kostet das
 H. knows what she believes how-much costs this
 c. Hans weiß, wieviel (*was glaubt sie) das kostet (*was
 H. knows how-much (what believes she) this costs (what
 glaubt sie)
 believes she)

Fourth, the *was*-clause in *was...w*-constructions may be iterated (49), *was*-IPs may not (50):

- (49) Was glaubst du, was sie sagt, was ... denkt, wieviel das kostet ?
 what believe you what she says what ... thinks how-much this costs
 'How much do you believe that she says that ... thinks that this costs?'

¹⁶'True subordinate counterpart' provides a diagnostic difference to parenthetical *was*-constructions involving verb-final main clauses (cf. fn.7). Note that the 'marginally acceptable' *was...ob*-case cited in Dayal (1994, 139n.2) is, according to my intuition, acceptable only in the deliberative reading, that is, as an instance of the *was*-parenthetical construction. Thus, it is no counterexample.

- (50) *Was glaubst du, was sagt sie, was denkst du, ..., wieviel kostet
 what believe you what says she what think you ... how-much costs
 das ?
 this

Fifth, the *was*-clause in *was...w*-constructions may contain main-clause specific items like modal particles and also bear main stress (51); as we saw in section 2.3, (39f.), *was*-IPs may not. Expectably, the respective related *wh*-clauses behave exactly the other way around (52)-(53).

- (51) Was glaubst DU denn/eigentlich, wohin er gegangen ist ?
 what believe you MP/MP where-to he gone is
 'Where do you believe that he went?'
- (52) *Was glaubst du, wohin er denn/eigentlich gegangen ist ?
 what believe you where-to he MP/MP gone is
- (53) Wohin ist er denn/eigentlich gegangen, was glaubst du ?
 where-to is he MP/MP gone, what believe you
 'Where did he go, do you think?'

Sixth, the *was*-clause in *was...w*-constructions tolerates first person subjects (54), which in the case of *was*-IPs were seen to be clearly out (see (38) above).

- (54) [Na rat mal:] Was glaube ich (wohl), wen sie besuchen wird ?
 [DP guess MP:] what believe I (MP) whom she visit will
 '[Well, guess:] Who do I believe that she is going to visit?'

Moreover, there is a clear difference with respect to rhetorical interpretations: *was...w*-constructions allow them (55), *was*-IP constructions do not (56):

- (55) [Was glaubst du, was Paul tun wird? -] Was schon werd ich glauben,
 [what believe you what P. do will? -] what MP_[rhet.] will I believe
 was Paul tun wird - weinen und beten wie immer
 what P. do will - weep and pray as always
 '[what do you think Paul will do? -]. Come on, what I believe, is obvious -
 Paul will cry and pray as usual.'
- (56) [Was glaubst du, was wird Paul tun? -] *Was schon werd ich glauben,
 [what believe you what will P. do? -] what MP_[rhet.] will I believe
 was wird Paul tun - weinen und beten wie immer
 what P. will do - weep and pray as always

Seventh, *was...w*-constructions permit matrix predicates that are quite bad in *was*-IPs, i.a. *behaupten* ('claim'), *vorschlagen* ('suggest'), *argwöhnen* ('suspect'):

- (57) Was behauptest du/behauptet er, wieviel das kostet ?
 what claim you/claims he how-much this costs
 'How much do you claim/does he claim that this costs?'
- (58) ?*Was behauptest du/behauptet er, wieviel kostet das ?
 what claim you/claims he how-much costs this

Now, these properties of *was...w*-constructions, summarized in (59),

- (59) *Non-parenthetical properties of was...w-constructions:*
- (i) the second clause (the related *wh*-clause) is a bona fide subordinate clause;
 - (ii) the *wh*-clause must contain a (*wh*-moved) +*wh*-phrase (hence must not be an *ob*-interrogative);
 - (iii) the *was...w*-construction may be embedded;
 - (iv) the matrix clause (*was*-clause) may be iterated;
 - (v) the *was*-clause may contain main clause specific material and bear main stress;
 - (vi) the *was*-clause may contain first-person subjects;
 - (vii) the *was*-clause may contain more complex verbs of saying, thinking, believing.

are not only distinctive vis-à-vis *was*-IP constructions. The important point is that they are also shared by interrogative extraction constructions like (4), suggesting that *was...w*-constructions are *wh*-extraction constructions as well. And according to the standard analysis originating with van Riemsdijk (1982) and still the majority view,¹⁷ this is in fact what they are: equivalents to normal *wh*-extraction constructions, the main difference being that long *wh*-movement of the relevant *wh*-phrase into its scope position happens at LF. This analysis entails that initial *was* is nothing but a kind of *wh*-expletive functioning as the scope marker for this *wh*-phrase; as such it is base-generated in the relevant A'-position.

If analyzed this way, the properties (59i-vii) of *was...w*-constructions all fall into place, for extraction proceeds from dependent clauses (i), requires an LF-extractable *wh*-phrase that *yes-no*-clauses do not provide (ii), goes into main and dependent clauses alike (iii), and is unbounded (iv). Moreover, since matrix clauses in 'normal' extractions are clearly part of the complex question proposition, they are bound to also admit main stress and (in main clause position) modal particles (60), as well as first person subjects and rhetorical interpretations (61), which shows that the distinctive properties (v-vi) are covered by a *wh*-extraction analysis of *was...w*-constructions as well.

- (60) a. Wohin glaubt SIE denn/eigentlich, daß er gegangen ist ?
 where-to believes she MP/MP that he gone is
 'Where does she think that he went'
- b. *Wohin glaubt sie, daß er denn/eigentlich gegangen ist ?
 where-to believes she that he MP/MP gone is

¹⁷Actually, the origin of this view can be traced back to H.-T. Tappe (see Höhle (1996, sect. 1)). Major proponents of this view are McDaniel (1989), Bayer (1996); cf. also the majority of contributions to Lutz & Müller (1996); and to the present volume. For a comparison with Dayal's (1994) 'indirect dependency' approach (which does not involve extraction; cf. section 2.4 above), plus critical discussion of this alternative with respect to German, see Bayer (1996, 226-230) and von Stechow (1996); cf. also Pafel (1996).

- (61) a. [Na rat mal:] Wen glaube ich (wohl), daß sie besuchen wird ?
 [DP guess MP:] whom believe I (MP) that she visit will
 '[Well, guess:] Who do I believe that she is going to visit?'
- b. [Was glaubst du, daß Paul tun wird? -] Was schon werd ich
 [what believe you that P. do will? -] what MP_[rhet.] will I
 glauben, daß Paul tun wird - weinen und beten wie immer
 believe that P. do will - weep and pray as always
 '[what do you think Paul will do? -]. Come on, it's obvious what I believe
 - Paul will cry and pray as usual.'

Finally, (vii) also makes sense under the *wh*-extraction analysis of *was...w*-constructions, for *behaupten*, etc. are perfectly acceptable bridge verbs in 'normal' extractions (62).

- (62) Wieviel behauptet er/schlägt er vor, daß das kosten soll ?
 how-much claims he/suggests he PRT that this cost shall
 'How much does he claim/suggest that this should cost?'

To sum up, *was...w*-constructions and *was*-IP constructions are clearly different structures. Likewise, given the differences in (59i,iii,v,vi), they must be assigned different interpretations, which correlates with their 'non-parenthetical' vs. 'parenthetical' use-value: In *was...w*-constructions, the *was*-clause is part of the complex interrogative proposition in more or less the same way as the matrix clause is in *w...daß*-constructions, the normal *wh*-extraction constructions; in *was*-IP constructions it is not.

At the same time, there can be no doubt that all three constructions - *w...daß*-constructions, *was...w*-constructions, and *was*-IP constructions - are similar to each other in one major respect, their questioning function: asking for the values of *x* that make the proposition 'y believes that *p[x]*' true - as done by the *w...daß*-constructions (63-ab) - or asking for the values of *x* which *y* believes will make the proposition '*p[x]*' true - as done by the *was*-IP construction (63-c) - usually amount to the same thing (one of the rare tangible differences showing up with first person subjects or in rhetorical use, see above (38), (54)-(56), (61)). At any rate, the set of true answers to (63-a-c) is the same.

- (63) a. Mit wem glaubst du/glaubt sie, daß er sich treffen wird ?
 with whom believe you/believes she that he himself meet will
 'Whom do you think/does she think that he will meet?'
- b. Was glaubst du/glaubt sie, mit wem er sich treffen wird ?
 what believe you/believes she with whom he himself meet will
 'Whom do you think/does she think that he will meet?'
- c. Was glaubst du/glaubt sie, mit wem wird er sich treffen ?
 what believe you/believes she with whom will he himself meet
 'Whom will he meet do you think/does she think?'

4. Was...W-Constructions II: Parallels to Was-IP Constructions

In the previous section, I reviewed more or less well-known facts showing that *was...w*-constructions are like *w...daß*-extraction constructions and unlike *was*-IP constructions. We shall see in this section that this is only half the truth: *was...w*-constructions are like *was*-IP constructions and unlike *w...daß*-constructions in many important respects. In other words, *was...w*-constructions have many, hitherto unrecognized, (integrated) parenthetical features.

4.1. Evidence from Old Puzzles

In determining these features, let us first turn to some much-belabored facts about the *was...w*-construction that seem puzzling from a purely synchronic, 'extractional' point of view:

4.1.1. *Was...w*-constructions do not tolerate negation in the matrix clause, whereas *w...daß*-extraction constructions do (Höhle (1996, (34)); Rizzi (1990)); cf. (64) vs. (65):

(64) *Was glaubst du nicht, mit wem Hans sich dort treffen wird?
what believe you not with whom H. himself there meet - will

(65) Mit wem glaubst du nicht, daß Hans sich dort treffen wird?
with whom believe you not that H. himself there meet will
'Who don't you think that Hans will meet there?'

As was shown in section 2.3, this is perfectly parallel to all IPs, including *was*-IPs: neither one of them tolerates negation; cf. (29)-(30) and (66).

(66) *Was glaubst du nicht, mit wem wird Hans sich dort treffen?
what believe you not with whom will H. himself there meet

Various explanations have been put forward for this restriction (Rizzi (1990), Dayal (1994), Beck (1995; 1996)). The most interesting one for us is by Beck, who shows that other cases involving LF-movement, for example multiple questions (67), are subject to the same restriction, and accordingly suggests a general constraint: "An intervening negation blocks LF-movement" (Beck (1995, 122)).

(67) *Mit wem wird sich niemand wo treffen?
with whom will himself nobody where meet

Inasmuch as this is correct, the negation parallel between *was...w*-constructions and *was*-IP constructions could, of course, be considered spurious. Note, however, that *was...w*-constructions are parallel to *was*-IP constructions in also excluding lexically negative predicates, cf. (68) vs. (30-b) and (69), whereas these are tolerated not only in overt long movement constructions, but also in other cases of LF-movement; cf. (70)-(71):

(68) *Was bezweifelst du, wen sie heiraten möchte?
what doubt you whom she marry wants

(69) *Was bezweifelst du, wen möchte sie heiraten?
what doubt you whom wants she marry

(70) Wen bezweifelt er, daß sie heiraten möchte?
whom doubts -- he that she marry wants
'Who does he doubt that she wants to get married to?'

(71) Wann bezweifelte er die Gültigkeit welchen Theorems?
when doubted he the validity which theorem_{gen}
'When did he doubt the validity of which theorem?'

If so, even the negation parallel is not entirely accountable for on independent grounds.

4.1.2. For many people, though perhaps not the majority, *was...w*-constructions like (72) containing a second *wh*-phrase in the matrix clause are out:¹⁸

(72) a. (%)*Was hat Peter wann gesagt, wieviel das kostet?
what has P. when said how-much this costs
b. (%)*Was glaubt wer, wann Peter kommt?
what believes who when P. comes

But note that *was*-IPs may not contain additional *wh*-phrases either, cf. (73),

(73) a. *Was glaubt wer, wann kommt Peter?
what believes who when comes P.
b. *Wann kommt Peter, was glaubst du warum?
when comes P. what believe you why

for a very simple reason: in multiple constructions, *wh*-phrases are almost invariably, if not inherently focused, and this is exactly what IPs should not be (see (23-v) above).

If so, the division of judgements on (72) can be related to the alternative points of comparison considered here: for speakers accepting (72), the *was...w*-construction shares one more feature with *w...daß*-constructions; for speakers rejecting it, it has one more *was*-IP feature.

4.1.3. Judgements on complex *was...w*-constructions containing intervening *daß* are similarly divided:¹⁹

¹⁸This corresponds to the judgements reported for example in Dayal (1994, 151n.7; 1996), Brandner (1994, 203; 1996); but see Höhle (1989; 1996, sect. 6, (27)-(29)), Müller & Sternefeld (1996, (54-a)), Fanselow & Mahajan (1996, (43-a)) for opposite judgements on (72). Numerous informal tests with native speakers have borne out this division of judgements.

¹⁹Cases with intervening *daß* are rejected in van Riemsdijk (1982, 12), von Stechow & Sternefeld (1988, 358), Dayal (1994, 140f.), Brandner (1994, 204; 1996), Bayer (1996, 228), but idiolects accepting it are reported by Höhle (1996, sect. 2, (5)) Fanselow & Mahajan (1996, (18)), Müller (1996, (12)). McDaniel also admits the possibility of intervening *daß* (1989, 575f.), but her generalization by which *daß* is claimed to be (strictly) impossible in some cases and licensed in others seems quite spurious.

- (74) (%) *Was glaubt Peter, daß Franz jetzt meint, wohin Elke geht ?
 what believes P. that F. now thinks where-to E. goes

Recall, however, that *was*-IPs tend to be syntactically simple; in particular they may not contain finite dependent clauses, see (33)–(34). Hence, not accepting (74) reflects an IP-feature of *was...w*-constructions. Again, the alternative judgements may be related to the alternative points of comparison: for speakers accepting (74), *was...w*-constructions are more in line with *w...daß*-constructions, for which a similar ban on complexity is unmotivated.

4.2. Evidence from Predicate Restrictions

Let us now look at the restrictions concerning admissible matrix predicates ('bridge predicates'). While it was noted before that the *was...w*-construction and the *w...daß*-construction differ in this respect (see especially von Stechow & Sternefeld (1988, 356f.)), the account of these differences has been incomplete, and no correlation with an independent factor has ever been offered. What I am suggesting as a generalization covering all cases is (75):

- (75) Only predicates belonging to the predicate classes that appear in *was*-IPs may also appear as bridge predicates in *was...w*-constructions.

In referring to 'predicate classes' rather than to just 'predicates,' I am allowing for the fact that impossible *was*-IP-predicates like *behaupten* ('claim'), *erzählen* ('tell'), *vorschlagen* ('suggest'), *argwöhnen* ('suspect') do show up in *was...w*-constructions, see above (57f.). These cases, however, can be considered as analogical extensions of the admissible IP predicate classes (see (24ii/iii): [simple] verbs of saying, thinking, believing), hence conform to (75). Otherwise, the restrictions implied by (75) are fully observed; see section 4.2.1 for structural predicate restrictions, and section 4.2.2 for semantic predicate restrictions:

4.2.1. *Was...w*-constructions do not admit complex object-verb predicates as in (76), which are perfectly admissible in *w...daß*-constructions (77):

- (76) a. *Was hat Peter 'ne Idee/das Gefühl, wen man fragen könnte ?
 what has P. an idea/the feeling whom one ask could
 b. *Was ist Peter des Glaubens/der Meinung, wohin sie fährt ?
 what is P. the belief_{gen}/ the opinion_{gen} where-to she goes
- (77) a. Wen hat Peter ?'ne Idee/√das Gefühl, daß man fragen könnte ?
 whom has P. an idea/√the feeling that one ask could
 'Whom does Peter think/feel that one could ask?'
 b. Wohin ist Peter ?des Glaubens/?der Meinung, daß sie fährt ?
 where-to is P. the belief_{gen}/ the opinion_{gen} that she goes
 'Where does Peter think that she will be going?'

Again, there is a clear parallel to *was*-IP clauses: There, *was* figures as the direct object of the parenthetical verb, hence, must also be licensed by it. From this it

follows that no second direct object phrase may appear in *was*-IPs (78-a), and that verbs not allowing a (pro)nominal direct object are excluded (78-b).

- (78) a. *Was hast du 'ne Idee/das Gefühl (wen könnte man fragen) ?
 what have you an idea/the feeling (whom could one ask)
 b. *Was bist du des Glaubens/der Meinung (wohin fährt Petra) ?
 what are you the belief_{gen}/ the opinion_{gen} (where-to goes P.)
 (cf. *Du bist das des Glaubens / *Du bist des Glaubens die Geschichte
 you are that the belief_{gen} / you are the belief_{gen} the story)

A parallel pattern holds for sentential predicates like *es scheint*, *es heißt* ('it seems', 'it is said'), which do not tolerate (pro)nominal direct objects either. While this is irrelevant for normal extraction constructions (79), *was*-IPs formed from these verbs are predictably out (80), and so are *was...w*-constructions (81).

- (79) Womit scheint es (dir)/ heißt es, daß man ihm helfen kann ?
 where-with seems it (you_{dat})/ is-said it that one him help can
 'With what does it seem (to you)/is it said that one can help him?'
- (80) *Was scheint es (dir)/ heißt es, womit kann man ihm helfen ?
 what seems it (you_{dat})/ is-said it where-with can one him help
 (cf. *Was scheint es (dir) ?/ *Was heißt es ? [* in the intended reading]
 what seems it (you_{dat})/ what is-said it)
- (81) *Was scheint es (dir)/ heißt es, womit man ihm helfen kann ?
 what seems it (you_{dat})/ is-said it where-with one him help can

In sum, 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.²⁰ Hence, the structural limits on *was*-IP verbs seem to be operative in the *was...w*-construction as well.

4.2.2. We also find that bridge predicates for the *was...w*-construction are constrained by the same semantic restrictions as IP-predicates; see (24iii). The ban on negative matrix predicates has already been illustrated (cf. section 4.1.1). (82)–(83) show that the ban on preference predicates and strong factive predicates holding for *was*-IPs (see above (25)–(28)) also holds, this again in contrast

²⁰This takes care of von Stechow & Sternefeld's (1988, 357f.) examples (33-iv)=(i) and (36-i)=(ii), cited by them as instances of lexical idiosyncrasies and structural restrictions (the Complex NP Constraint in effect) respectively, for neither *zustimmen* nor *der Behauptung glauben* allow (pronominal) accusative objects.

- (i) *Was hast du zugestimmt, wen wir einladen sollen ?
 what have you agreed whom we invite shall
 (ii) *Was glaubst du der Behauptung, wohin Ede umzieht ?
 what believe you the claim where-to Ede moves

Also covered by the 'parenthetical correlation' (75) are the additional observations in Höhle formulated by him as property (9-iv) of *was...w*-constructions (1996, sect. 3).

to the normal *w...daß*-extraction construction; cf. (84)–(85).²¹

- (82) a. *Was möchte/will Fritz, wen seine Tochter heiratet ?
 what wants/wishes F. whom his daughter marries
 b. ?*Was würde Fritz vorziehen, wohin seine Tochter geht ?
 what would F. prefer where-to his daughter goes
- (83) a. *Was hat er sich geärgert/berücksichtigt, wen Hans
 what has he himself got-angry/taken-into-account whom H.
 eingeladen hat ?
 invited has
 b. *Was fand er entsetzlich/gut, wen Hans eingeladen hatte ?
 what found he terrible/good whom H. invited had
- (84) a. Wen möchte/will Fritz, daß seine Tochter heiratet ?
 whom wants/wishes F. that his daughter marries
 'Whom does F. wish that his daughter will get married to?'
 b. Wohin würde Fritz vorziehen, daß seine Tochter geht ?
 where-to would F. prefer that his daughter goes
 'Where would Fritz prefer that his daughter went?
- (85) a. ?Wen hat er sich geärgert/berücksichtigt, daß Hans
 whom has he himself got-angry/taken-into-account that H.
 eingeladen hat ?
 invited has
 'Whom did he mind/take into account that Hans invited?'
 b. Wen fand er entsetzlich/gut, daß Hans eingeladen hatte ?
 who found he terrible/good that H. invited had
 'Who did he find it terrible/good that Hans had invited?'

The same pattern shows up with adjectival predicates; cf. (24iv): just like *was*-IPs (see above (31)–(32)), *was...w*-constructions do not tolerate them as putative bridge verbs (86), whereas *w...daß*-constructions do (87):

- (86) *Was ist klar/bekannt, wen seine Tochter heiraten will ?
 what is clear/well known whom his daughter marry will
 (87) ?Wen ist klar/bekannt, daß seine Tochter heiraten will ?
 whom is clear/well known that his daughter marry will
 'Who is it clear/well known that his daughter wants to get married to?'

²¹Von Stechow & Sternefeld (1988, 357) claim that there are also bridge predicates (see their cases (35-i,ii)) that are licensed in the *was...w*-construction, but not in the *daß*-extraction construction. But the contrasts cited seem spurious (*zufüstern* 'murmur to' is bad in both constructions, as accidentally admitted in their examples (32-vii)/(35-ii), and *entscheiden* 'decide' is acceptable in both, if the *that*-trace effect interfering in (35-i) as opposed to (32-i) is avoided. (As pointed out in McDaniel et al. (1995), this effect never shows up in scope-marking constructions.)

As far as I can see, these facts cannot be accommodated by the usual accounts of bridge properties, no matter whether they are lexical or structural in nature (see Goodluck & Rochemont (1992) for a short overview). And it seems most unlikely that the LF-movement property distinguishing *was...w*- and normal extraction constructions will yield one, since LF-movement of *wh*-phrases in situ over these predicates is fine, see (71) and (88)–(90).

- (88) Wen möchte/will Fritz, daß seine Tochter wann heiratet ?
 whom wants/wishes F. that his daughter when marries
 'Who does Fritz want that his daughter will get married to when?'
 (89) Mit wem findet Fritz problematisch, daß wer verheiratet ist ?
 with whom finds F. problematic that who married is
 'Who does Fritz think it's a problem that who is married to?'
 (90) Mit wem ist sicher, daß Paul wann in Stanford zusammenkommt ?
 with whom is certain that P. when in Stanford together-comes
 'Who is it certain that Paul will meet in Stanford when?'

Hence, the parallel between *was...w*- and *was*-IP constructions regarding possible *was*-clause predicates is practically perfect. In other words, (75) is a correct generalization.²²

4.3. Interpretive Evidence

Let us finally look at some interpretive evidence as illustrated by data like (91):²³

- (91) a. Sie glaubt/sagt, daß Fox hier populärer ist als er ist
 she believes/says that F. here popular-er is than he is
 'She believes/says that Fox is more popular here than he is.'
 b. Wo ist Fox populärer als er ist ?
 Hier ist Fox populärer als er ist
 where/here is F. popular-er than he is

As is well known,²⁴ matrix-complement structures like (91-a) have a 'consistent' and an 'inconsistent' reading, whereas main clause structures like (91-b) have just the 'inconsistent' reading. The difference is related to the availability of

²²If the point made in the previous note is granted, then ALL the lexical and structural restrictions illustrated by von Stechow & Sternefeld (1988) and by Müller (1996), fall out as instances of (the various subcases) of (75). (The same seems to be true for the distinctive patterns noted in Gamon (1994), a reference for which I am indebted to J.W. Zwart.) Since this is also true for the preference predicate and the adjectival restriction – restrictions on *was...w*-constructions that have so far gone unnoticed – (75) has everything going for it.

²³My taking up this evidence was inspired by the reference in Dayal (1996) to Herburger (1994) who has apparently observed that *daß*-extraction structures may be generally interpreted *de re* or *de dicto*, whereas in the *was...w*-construction the embedded clause is always interpreted *de re*.

²⁴J. Pafel (p.c.) informs me that cases like (91) were already discussed by Russell (1905). My discussion of these and related data with respect to V1-IP vs. extraction constructions in Reis (1995a, 74ff.; 1995b, 59f.) was originally inspired by Reinhart (1983, 173f.).

one vs. two sources capable of believing, expressing, insinuating (the truth of) propositions: bare main clauses like (91-b) provide only one source, the speaker, who is thus necessarily assigned an inconsistent belief, whereas in (91-a) the inconsistent propositions need not, but can be assigned to different sources, the matrix subject vs. the speaker, yielding a consistent interpretation.

Extending these observations to *w...daß*-extractions (92) and *was...w*-constructions (93), we find that the former allow for a consistent interpretation of structures parallel to (91), that is, they admit both readings (although, depending on the matrix predicate, one or the other seems to be preferred), whereas the latter allow just for the inconsistent reading: the comparative proposition must be assigned as a whole to the perspective of the *was*-clause subject.

(92) Wo glaubt/sagt sie, daß Fox populärer ist als er ist?
 where believes/says she that F. popular-er is than he is
 'Where does she believe/say that Fox is more popular than he is?'

(93) Was glaubt/sagt sie, wo Fox populärer ist als er ist?
 what believes/say she where F. popula-rer is than he is

Again, the behavior of *was...w*-constructions is completely parallel to that of *was*-IP constructions (94): The comparative proposition must also be assigned as a whole to the *was*-IP subject, thus forcing the inconsistent reading and disallowing the consistent one.

(94) a. Was glaubst du, wo ist Fox populärer als er ist?
 what believe you where is F. popular-er than he is
 b. Wo ist Fox populärer als er ist, was sagt sie?
 where is F. popular-er than he is what says she

Since no independent explanation for this parallel is available,²⁵ we may count it as a further 'parenthetical' feature of *was...w*-constructions vs. *w...daß*-extraction constructions.

4.4. Conclusion

Summing up sections 4.1–4.3, we find that a great number of peculiar properties of *was...w*-constructions are parallel to characteristic properties of *was*-IP constructions. Since no independent explanations for these *was...w*-properties are available at the moment, these parallels cannot be accidental. Hence, we have to find a principled way of accounting for the 'parenthetical features' of *was...w*-constructions as such. The next two sections are devoted to finding some such way.

²⁵ Embedded interrogative constructions like (i) also admit the inconsistent reading only, which suggests, alternatively, that the property in question is tied to the +*wh*-link between matrix and dependent clause shared by +*wh*-complement constructions and *was...w*-constructions alike. (This would imply that the complement in *was...w*-constructions does not only look like a +*wh*-clause but, in some respects, crucially acts like one).

5. Relating Was...W-Constructions to Was-IP Constructions: The Diachronic Perspective

As a preliminary step, let me view the parallels between *was...w*-constructions and *was*-IP constructions under the diachronic perspective. For syntacticians firmly rooted in the neogrammarian tradition up to today's proponents of the grammaticalization approach, this step would have been the natural, in fact the only one to take, the null hypothesis being that non-accidental synchronic parallels between two constructions have historical causes. All there is to synchronic explanation under this perspective is showing that the two constructions in question do in fact have a common origin such that the existing synchronic parallels can be analyzed as reflexes of a (perhaps still incomplete) process of linguistic change.

Let us see whether a plausible historical scenario along these lines can be constructed.

5.1. A Possible Diachronic Scenario

Using the traditional construction-specific mode of speaking presupposed by neogrammarian and grammaticalization approaches, there are three ways in which two constructions A and B may be historically related: A originates from B, B originates from A, A and B originate from a third construction C. With A = *was...w*-construction and B = *was*-IP construction, the first option looks like the most plausible one: After all, hypotaxis is usually derived from parataxis, and parenthetical 'fusion' mediated by prosodic integration, which forces the sequence of clauses to be interpreted as an informationally integrated whole, could well be (a variant of) a necessary intermediate stage. So let us primarily pursue this option.

(i) Sie sagt, wo Fox populärer ist als er ist
 she says where F. popular-er is than he is

However, ALL IP constructions by which (i) can be paraphrased have the effect of just admitting the inconsistent reading, even if no +*wh*-link between the clauses in question is involved at all; cf. (ii)-(iii) (see also Reis (1995a, 75)). Hence, it is perhaps not that the +*wh*-link makes the consistent interpretation illicit, but rather that only the *daß*-link or a *daß*-like link to an appropriate embedding clause makes it licit.

(ii) Wo ist Fox populärer als er ist, glaubt sie? /Wo glaubt sie ist Fox
 Hier ist Fox populärer als er ist, glaubt sie. /Hier glaubt sie ist Fox
 (w)here is F. popular-er than he is believes she/ (w)here believes she is F.
 populärer als er ist?
 populärer als er ist
 populärer than he is

(iii) Wie sie sagt, ist Fox populärer als er ist
 as she says is F. popular-er than he is

Thus, the minimal conclusion is that, although *was...w*-constructions look like -*wh*-complement structures under the extraction perspective, the link between *was*-clause and dependent clause is apparently not *daß*-like or 'complement-like' enough. (See also section 6.3 below.) Thus, the interpretive pattern in question is indeed basically 'parenthetical' in nature.

A model for historically relating *was*-IP constructions and the *was...w*-construction such that the former gave rise to the latter, could look like this:

We know that there have always been (a) short *wh*-constructions, (b) long 'normal' *wh*-constructions in German, as illustrated by the Old High German examples in (95)–(96).²⁶

- (95) a. Waz wollet ir nu, quad er, thes ?
 what will you_{pl} now said he that_{gen}
 'What do you want, he said?' (Otfrid III.20.123)
- b. (Sorgen mac diu sela /.../) za uuederemo herie si gehalot uuerde
 care may the soul to which army she drafted become
 'the soul can worry to which army it will be assigned' (Muspilli, 6f.)
- (96) a. Uuar uuili thaz uuir garauemes thir zi ezzanne ostrun
 where will-you that we prepare you_{dat} to eat easter
 [ubi vis paremus tibi comedere pascha] (Tatian 157.1)
 'Where do you want us to prepare your Easter meal.'
- b. Wer quedent sie theih sculi sin
 who say they that-I should_{subj} be
 'Who do they say I am?' (Otfrid III.12.8)

Assuming now (c) that, despite the absence of recorded historical examples, *was*-IP constructions have also been available throughout, the putative development could be pictured in several more or less traditional ways: The first is by way of 'contamination,' a process defined by Hermann Paul as in (97),

- (97) "Unter Kontamination verstehe ich den Vorgang, daß zwei synonyme oder irgendwie verwandte Ausdrucksformen sich neben einander ins Bewusstsein drängen, so daß keine von beiden rein zur Geltung kommt, sondern eine neue Form entsteht, in der sich Elemente der einen mit Elementen der andern mischen. Auch dieser Vorgang ist natürlich zunächst individuell und momentan. Aber durch Wiederholung und durch das Zusammentreffen verschiedener Individuen kann auch hier wie auf allen übrigen Gebieten das Individuelle allmählich usuell werden." Paul (1920, 160)
 [I define as contamination the process that two synonymous or somehow related expressions simultaneously force themselves into consciousness, such that rather than either of the two manifesting itself in its true form, a new form comes into being mixing elements of both. Naturally, this also starts out as an individual and spontaneous process. But just as in all other cases, this individual process may gradually become usual [part of the linguistic 'usus'] by virtue of repetition and the interaction of various individuals.]

²⁶The existence of long extractions from complement clauses ('Satzverschränkung,' 'Satzverschlingung,' 'Trajektion,' in traditional terms) throughout the history of German is documented in Blatz (1896, II.929-932 (= §212B); 977-979 (= §218A.13)); Paul (1919, IV.2:319-324 (= §497)); Behaghel (1928, III.547-552 (= §1219-1221)). A short overview under a diachronic perspective concentrating on the receding use of these constructions in the last few centuries is provided by Andersson & Kvam (1984, 104-107); see also Andersson (1993). – As far as I can see, there is no mention of the *was...w*-construction in the standard sources on the diachronic or synchronic grammar of German at all. (A brief description, the only one I know of in nongenerative literature, is given in Andersson & Kvam (1984, 83-85)).

and frequently appealed to in neogrammarian and later accounts of syntactic change. If viewed this way, the *was...w*-construction would be held to originate from the mixture of two partially similar constructions: the 'normal' long *wh*-construction (b) and the parenthetical *was*-construction (c), which, given their closeness in meaning and function and the many formal parallels on top of that, would be quite natural candidates.

The 'analogical' version of this account would be to say that (c) was formally changed = 'recreated' in analogy to (b) as a matrix-complement construction having undergone some form of long *wh*-movement. This would minimally imply, as a first step, (i) reanalyzing initial *was*-IP constructions as originating in sentence rather than in discourse grammar (this would result in a Hindi style indirect dependency construction; cf. section 2.4), and positing as further changes (ii) dependent clause structure for the *wh*-clause, (iii) LF-movement for the *wh*-phrase, (iv) reanalysis of initial *was* as an expletive element, a 'scope marker.' The corresponding proportional equation could be based on the parallel (in meaning and form) between short vs. long movement *wh*-constructions and simple vs. parenthetical *wh*-constructions (a 'stofflich-formale Proportionsgruppe' ['material-formal proportional group'] in Paul's (1920, 107f.) terms), with (c) being the target of the analogical change; cf. (98):

- (98) (a) Wohin ist er gegangen : (b) Wohin glaubst du, daß er gegangen ist. =
 (a) Wohin ist er gegangen : (c) Was glaubst du, wohin ist er gegangen.

The fact that *was*-IP constructions continued to exist despite this change could be related to the existence of medial and final *was*-IP constructions supporting the initial *was*-IP construction type.

A third and perhaps the most attractive way of picturing the structural development would be 'reanalysis' pure and simple, that is: the underlying structure of the *was*-clause-*wh*-clause pattern was changed from a parenthetical to a *wh*-movement *was*-structure WITHOUT INVOLVING ANY IMMEDIATE CHANGE IN SURFACE MANIFESTATION (see Harris & Campbell (1995, 50; 61ff.)). This presupposes, of course, a suitable period of time in which main and dependent *wh*-clauses were not necessarily structurally distinct, and actually there is one: While verb placement in main vs. dependent clauses was already markedly different in Old High German (cf. Ebert (1978, 38)), considerable variation continued to exist in main as well as dependent clauses up into Early New High German times (see Ebert (1986, 101ff.)), which, by itself, might have afforded sufficient overlap for reanalyzing the *wh*-clause in question as a dependent clause. Moreover, Early New High German main clauses, if anaphorically linked to the preceding clause, were not infrequently verb-final rather than verb-second (cf. ... *starb im die erste Frau, deshalb er ein andere nam* 'died him_{dat} the first wife, therefore he an other took; see Ebert (1986, 103f.) and references cited there), which in view of the anaphoric relation between the parenthetical *was*-clause and *wh*-clause is quite suggestive. If we assumed then, and there seems to be no evidence to the contrary, that the reanalysis in question happened at this time, then the central precondition of reanalysis (marked above in capitals) would be clearly fulfilled at

all stages, for none of the above-mentioned minimal changes (i)–(iv) in turning the initial *was*-IP construction into a long *wh*-movement construction would then involve an immediate surface change.

Note that deriving the *was...w*-construction from the *was*-IP construction in terms of pure reanalysis would not require long *wh*-extraction constructions to be present as an actual model for the change at all – the potential availability of long *wh*-movement provided by Universal Grammar would suffice. Since there are many German non-extraction dialects that admit the *was...w*-construction,²⁷ this would be a potentially welcome feature of the reanalysis account. On the other hand, it is well known that two competing constructions are rarely both retained, so the lack of long extraction in some *was...w*-construction dialects does not necessarily rule out an account in terms of ‘contamination’ or ‘analogy’ as sketched above either.

In sum, (various versions of) a plausible scenario for deriving *was...w*-constructions from *was*-IP constructions can be constructed, based on mechanisms generally recognized (in one way or the other) as having systematic diachronic relevance. In particular, all the empirical prerequisites for a derivation by pure ‘reanalysis’ seem to be fulfilled.

If so, assuming *was...w*-constructions and *was*-IP constructions to be historically related in this way is an attractive, altogether plausible hypothesis.²⁸ Is it also true?

Unfortunately, the empirical evidence to decide this question is just not there: the historical information on *was*-IP constructions and *was...w*-constructions provided by the standard sources is practically nil. All they have accidentally yielded so far is a vague terminus ante quem for the ‘rise’ of the *was...w*-construction: 17th century; cf. the stray examples cited in Grimm’s DEUTSCHES WÖRTERBUCH [=GDW] under *was*:

- (99) a. Was deucht dich, mein gesell, wie koente wol ein schwein
 what bethinks you my fellow how could MP a pig
 von einer sau geborn, der mutter gleicher seyn ?
 by a sow born the mother_{dat} equal-er be
 J. RACHEL sat.ged. 17 ndr. (1664/1677) [GDW 29 (1960, 88)]

²⁷The evidence for this is mainly informal: ever since I started working on long *wh*-movement, I have found many speakers who accepted the *was...w*-construction and rejected the *daß*-extraction construction, but none so far with the reverse preference. – Indirect evidence pointing in the same direction is provided by Andersson & Kvam (1984, 83ff.), who found the *was...w*-construction to be much more frequent in their corpus than the *w...daß*-construction, and also to be one of the preferred alternatives for translating extraction constructions in foreign texts.

²⁸Note that the marginal status of *was*-IP constructions vs. the well-established status of *was...w*-constructions in present-day German is not necessarily an argument against historically deriving the latter “from” the former. First, my putative derivation proceeds, strictly speaking, VIA rather than FROM the former (which makes a difference); second, present-day *was*-IPs may also be viewed as being ‘recreated’ in their entirety by an analogical process taking V1-IPs and *was...w*-constructions as its input, their marginality being, perhaps, a result of there being so many competing constructions around.

- b. Was meinst du wohl mein Israel,
 what think you MP my Israel
 was ich dir werde koennen nuetzen ...
 what I --you_{dat} will can (be of) use
 wenn dich betreffen andre faell ?
 if you_{acc} be-hit other incidents
 G. NEUMARK fortgepf. lustwald (1657) 1,83 [GDW 29 (1960, 90)]
- c. Was glaubst du wohl, was ich dafür gäbe .
 what believe you MP what I that-for give_{subj.II}
 T. FONTANE ges. w. (1905) I 5,150 [GDW 29 (1960, 90)]

Moreover, we are not only ignorant about the previous development of ALL the relevant constructions, but we do not know anything about putative changes in the areas of synchronic variation either.²⁹ Hence, there is no straightforward historical evidence whatever to show that either one of the above accounts, if any, is correct. So the attraction of the historical hypothesis is entirely motivated by its intuitive plausibility – why should so many similar constructions with identical meaning be around? – and by the plausibility of the diachronic derivational scenario sketched above: it is too good not to reflect SOME reality.

5.2. Synchronic Reflexes of Diachrony?

Since what we are actually looking for is an account of the synchronic parallels between *was*-IP constructions and *was...w*-constructions, it is time to ask what we gain by having a historical derivation. From the perspective of the approaches alluded to above, the answer would be self-evident: If synchrony is (by and large) a mere reflex of diachrony, a correct historical derivation would EXPLAIN why the synchronic patterns are the way they are.

Applying this standard, the proposed historical derivation would have a lot to recommend itself:

First, it would readily explain the otherwise (i.e., in purely synchronic terms) puzzling fact that the interrogative scope marker *was* does not license *was...yes-no*-questions like (100),

- (100) *Was glaubst du, ob er morgen kommen wird ?
 what believe you whether he tomorrow come will
 [intended meaning: ‘Do you think that he will come tomorrow?’]

but *was...wh*-constituent questions only: Since *yes-no* main clauses have always been verb-first clauses without complementizer in German, whereas *yes-no* dependent clauses have never been verb-first and have always been introduced by

²⁹We do not even have evidence for any of the relevant areas (±intervening *daß*, ±additional *wh*-phrases in *was*-clauses, extension of admissible matrix verb classes, see above sections 4.1.1f., 4.2) that things are in flux at all, let alone what direction a putative change would take. – Admittedly, so far, nobody has really bothered getting the relevant evidence on that, be it real-time evidence or apparent-time evidence, in the sense of Labov (1994, 43ff.).

ob (OHG. *ibu, oba*, Goth. *ibái* 'whether'),³⁰ the surface identity condition for re-analyzing *was*-IP constructions like (16-c), repeated here as (101),

- (101) Was glaubst du, wird er morgen kommen?
 what believe you-will-he tomorrow come
 'Will he come tomorrow, do you think?'

as matrix-complement constructions like (100), would simply have never been fulfilled.

Second, consider two much-belabored properties of *was...w*-constructions that are perhaps even more puzzling, given their (otherwise well-motivated) synchronic analysis as scope-marking complement constructions: (i) the obligatory 'partial movement' of the *wh*-phrase, (ii) the 'anti-locality' of the scope-marking relation between *was* and the *wh*-phrase (see von Stechow & Sternefeld (1988, 354ff.), von Stechow (1996, 6ff.)). (i) is puzzling because under the scope-marking account, the *+wh*-phrase must be taken to obligatorily move to a [-wh] position, the matrix verbs admitting [-wh]-complements only; cf. (102). (ii), exemplified in (103), is intrinsically puzzling because restrictions on structural relations usually enforce locality, not the opposite.

- (102) a. Was glaubte er, wer gekommen ist?
 what believed he who come is
 'Who did he think came?'
 cf. *Er glaubte, wer gekommen ist
 he believed who come is
- b. *Was fragte er, wer gekommen ist?
 what asked he, who come is
 'He asked who came.'
 cf. Er fragte, wer gekommen ist
 he asked who come is

- (103) *Wasⁿ ist werⁿ gekommen?
 what is who come [indices marking the intended scope marking relation]

Under the diachronic perspective, both puzzles dissolve into a picture making sense: (i) is a reflex of the paratactic relation between two interrogative clauses in the original construction, (ii) is a reflex of the original construction being (necessarily) bi-clausal, with the 'scope' relation involving (necessarily) two clause-initial *wh*-phrases.

Third, as stressed in section 4, the *was*-clause in *was...w*-constructions has a considerable number of salient parenthetical features. If the historical derivation is as hypothesized, the explanation is straightforward: they, too, are synchronic remnants of the original construction.

In sum, looking at the synchrony of *was...w*-constructions from the diachronic

³⁰See Paul (1919, IV.2:182 f. (§398)). Interestingly, the same sharp distinction did not obtain in Gothic, where *ibái* was also used to introduce direct *yes-no* questions (Paul, *ibid.*).

perspective in the way proposed above has impressive descriptive, if not explanatory appeal: many facts which, in terms of the prevailing, and as far as it goes well-motivated, synchronic analysis outlined in section 3, are ill-understood idiosyncrasies, seem to fall into place.

Before we turn to the snags of reducing synchrony to diachrony in this way, let us go one step further. Syntactic change takes time, so at a given synchronic stage it may still be in progress. Could this also be the case with respect to today's *was...w*-construction? If 'persistence'³¹ of features of the original construction is a regular ingredient of ongoing diachronic change, as is often claimed, the answer may well be yes, given the findings just cited. In particular, the synchronic variation observed with respect to multiple *wh*-phrases (72) and intervening *daß* (74) would lend itself to a suggestive interpretation: speakers accepting (72) or (74) could be classified as being more advanced in the reanalysis of *was...w*-constructions as LF-extraction constructions (with the structure above the 'specific' *wh*-clause being a true matrix clause)³² than those rejecting it.

In sum, the many parenthetical features of the *was...w*-construction could be taken to show that the change is not yet complete, i.e., that *was...w*-constructions are not yet fully grammaticalized as scope-marking (LF-extraction) constructions. If true, this would add to the impressive success of the 'diachronic view' of synchrony in this particular case: more or less ALL strange features of *was...w*-constructions would seem to be accounted for as diachronic reflexes by assuming the historical derivation outlined in 5.1.

Why then do we not accept this view as it stands? Because there are serious problems with it, to which I shall turn now.

6. Relating Was...W-Constructions to Was-IP Constructions: The Synchronic Perspective

6.1. Why the Diachronic Perspective on Synchrony is not Enough

There are several good reasons why one should not accept a purely diachronic view of synchrony as a satisfactory account of synchronic reality.

First, to start with the seemingly most innocuous one: the picture of syntactic change presupposed by it may not be correct. Obviously, the success of the diachronic account in our case rests on the assumption of persistence, i.e., that

³¹I owe this term to Hopper (1991, 22; 28ff.); I am applying it, however, to grammatical change in general rather than just to lexical elements becoming grammaticalized. (A similar generalization is implicit in the discussion of syntactic change in Hopper & Traugott (1993)).

³²I do not want to take a stand on whether the *wh*-chain formation we observe (*was... was... was... wh*-phrase) would have to be viewed as just an idiosyncratic makeshift device to ensure unboundedness (something implicit in the reanalysis as a long *wh*-movement construction), or as the spell-out of a universally available process. In the latter case, no prediction could be made as to which of the two variants of unbounded *was...w*-constructions, (74) or its counterpart without intervening *daß*, would win out historically, for both would be equally legitimate. All one could predict is that (74) would become possible in principle (notwithstanding the fact that competing structural possibilities tend to be levelled out; see also Müller (1996)).

structural features of the original *was*-IP-construction only gradually give way to the structural features of the scope-marking/LF-extraction construction targeted by reanalysis. But as pointed out in Kroch (1989), detailed studies of many syntactic changes (also) support a different picture: the linguistic constraints on the change, that is, the structural features defining the 'target' construction, are there from the very beginning and remain constant throughout; what gradually increases is the general rate of application. If the putative change we are interested in were to be analyzed along these lines, the parenthetical features of *was...w*-constructions would presumably remain a puzzle, unsolvable by purely diachronic considerations. If so, how do we know which picture is right for the change in question, if it happened at all? Only detailed studies of the actual data documenting the history of both *was*-question constructions would help, but these are simply not available (see above, section 5.1).

Second, even if 'persistence' were granted to apply in this case, there is a problem usually not addressed in grammaticalization studies: How does one know which features of the original construction are likely to persist vs. disappear under a given reanalysis? Clearly, the answer depends on the nature of the new (= reanalyzed) construction; one would assume that it gradually imposes its defining features. But if so, there MUST be an independent theory, viz., the theory of grammar, telling us what in the first place are possible (target) constructions, and if syntactic change has produced one, what its defining features are. The same considerations apply when looking at the present synchronic state of *was...w*-constructions we are particularly interested in: How could we tell which 'persisting' parenthetical features of *was...w*-constructions are 'just historical remnants' likely to disappear, and which ones are defining features of the new (= reanalyzed) construction – for example the initial *was* –, hence likely to stay? Do the intermediate *was* in iterated *was...w*-constructions belong to the former or the latter? In the absence of any recognizable drift to tell us, even in the case of synchronic variation (see note 30), the answer depends again on what kind of synchronic analysis of *was...w*-constructions we consider descriptively adequate and theoretically feasible in the first place. Hence, it is the synchronic analysis of *was...w*-constructions licensed by the theory of grammar that could help us predict their past and future diachrony, not the other way around.

What this leads up to is the third and most important point: No matter how the present parenthetical features of *was...w*-constructions are divided up under the perspective of past and future diachrony, the fact is that they all act as live restrictions on the *was...w*-construction as presently given, just like the non-parenthetical features. Hence, ALL of them must be accounted for in the grammar, irrespective of their origin. In other words, they are all part of the linguistic knowledge of German native speakers, which is the systematic object defining 'synchrony' as, in principle, distinct and thus to be kept apart from 'diachrony.'

6.2. The Systematic Perspective on Synchrony I: Orthodox Options

What I have just reestablished in section 6.1 as sound in principle is of course the normal Saussurean view, reinterpreted in generative terms: Since the linguistic knowledge of native speakers, their 'grammar,' includes an autonomous computational system (interfacing phonetic and conceptual systems) as its structural core, the 'grammar of a language,' by its very nature, is a truly ahistoric linguistic object, and thus the (only) proper counterpart to diachrony. It is in terms of grammar thus conceived, possibly interacting with pragmatic and cognitive mechanisms, again ahistoric objects, that the 'synchronic,' i.e., systematic properties of German *was...w*-constructions have to be accounted for.

This much for the programmatic. Getting down to work, what are likely options the theory of grammar presently offers for such an account?

6.2.1. Let us first look more closely at the ways bona fide 'historical remnants likely to disappear,' no matter how determined as such, may be handled under this view of grammar. How, for example, could we account for the (putative historical) fact that *was...w*-constructions are (still) governed by the semantic predicate class restrictions of *was*-IP-predicates? The answer is: not in core grammar at all. Nothing in generative theorizing makes us expect that such a restriction could 'persist' after the *was*-IP construction was reanalyzed by the language learner, no matter in what form: If it was reanalyzed as a scope-marking LF-extraction construction, which corresponds to the standard view, then we would have expected as a consequence that all so-called bridge verbs (i.e., matrix predicates figuring in the *w...daß*-construction) should be admissible in the *was...w*-construction. If it had been reanalyzed as a Hindi-style scope-marking construction, which would correspond to Dayal's (1994) view, then we would have expected as a consequence that the *was...w*-construction should admit all clause-embedding *-wh*-predicates. In other words, IF this restriction is a mere historical liability on an otherwise reanalyzed construction, then it must be accounted for outside core grammar.

There are two orthodox ways of doing this: idiosyncratic restrictions, no matter whether they have a historical basis or not, may be relegated to (i) the lexicon, (ii) the 'periphery' of grammar (as opposed to core grammar in the sense of Chomsky (1985, 147ff.)), the loci of lexical and grammatical idiosyncrasies respectively. Neither works well for the restriction in question: Using (i) would amount to marking the respective bridge verbs/clause-embedding verbs ruled out in *was...w*-constructions with an exception feature in the lexicon. This solution would not have much to recommend itself, for apart from treating bridge properties as basically lexical properties, which they might not be, it is squarely construction specific, and, moreover, misses the underlying generalization: it is not that certain bridge verbs are disallowed in the *was...w*-construction, but that only *was*-IP-predicates are permitted. But (ii) does not readily recommend itself either: Since the semantic predicate class restriction is but one of the persistent *was*-IP features, what is actually needed is some kind of transderivational filter: *was...w*-constructions as licensed by core grammar will only be good if their matrix clause (apart from certain features, for example main clause properties) is

also licensed as a *was*-IP in the respective *was*-IP construction. While I know far too little about the periphery of grammar to exclude the necessity of such mechanisms straight off, they are certainly much too powerful to like using them.

In sum, trying to represent the parenthetical features as foreign to the true grammatical nature of *was...w*-constructions in the ways suggested (be it for historical or other reasons) would be extremely problematic for any analysis.

6.2.2. The natural conclusion a generative grammarian would derive from these findings is, of course, that the so-called parenthetical features are NOT foreign to *was...w*-constructions, but part of their systematic properties after all. Since there is no recognizable drift away from these properties (see sections 4.2, 6.1), this conclusion is quite plausible.

If so, we must find a systematic reason for why *was...w*-constructions have (retained) the features listed in section 4 that distinguish them from *w...daß*-extraction constructions, i.e., we must identify a grammatical factor to which these features could be plausibly related. If such a factor could be found, it would not matter anymore whether or not *was...w*-constructions derive historically from *was*-IP constructions.

I know of two, rather similar proposals to this effect:

6.2.2.1. The first is by Jürgen Pafel (p.c.), who, in commenting on the 'parenthetical' predicate restrictions pointed out in section 4.2, proposed the hypothesis cited in (104):

- (104) *Pafel's hypothesis* (p.c.):
The difference between admissible bridge predicates in *was...w*- and *w...daß*-constructions is to be related to the fact that only the bridge predicates in *was...w*-constructions select a complement introduced by a *wh*-phrase that is bound by a higher *wh*-phrase.

He suggested, moreover, that this hypothesis be tested against the *w*-copy construction exemplified in (5) and (105), which differs from the *w...daß*-construction by the same property of selecting a complement introduced by a *wh*-phrase bound by a higher *wh*-phrase (henceforth called the '*w...w*-property').

- (105) Wen glaubst du, wen er getroffen hat ?
who believe you who he met has
'Who do you believe he met?'

If this construction were to have the same peculiar restrictions as the *was...w*-construction, then these restrictions could not be (just) reflexes of the parenthetical part of the latter, but should rather be systematically related to their common *w...w*-property.

Following up this suggestion yields, in fact, a strong correlation: Not only are *w*-copy constructions indeed subject to similar predicate restrictions as *was...w*-constructions, but they also share most of the other distinctive features vis-à-vis

the *w...daß*-constructions illustrated in sections 4.1-4.3;³³ cf. (106)-(108):

- (106) *Restrictions with respect to negative predicates, multiple wh-phrases, intervening daß* (cf. section 4.1):
- *Wen glaubst du nicht, wen sie liebt ?
whom believe you not whom she loves
 - *Wen hat Peter wann gesagt, wen er besuchen wird ?
whom has P. when said whom he visit will
 - *Wen sagt Peter, daß Franz glaubt, wen sie liebt ?
whom says P. that F. believes whom she loves
- (107) *Further predicate restrictions* (cf. section 4.2):
- ?Wen hat Peter das Gefühl, wen man fragen könnte ?
whom has P. the feeling whom one ask could
 - *Wen möchte Peter (lieber), wen Petra heiratet ?
whom wants P. (rather) whom P. marries
 - *Womit ist klar, womit er handelt ?
where-with is clear where-with he deals
- (108) *Interpretive restriction* (cf. section 4.3):
Wo glaubt sie, wo Fox populärer ist als er ist ?
where believes she where F. popular-er is than he is
[inconsistent reading only]

Still, on closer inspection, it is more than doubtful that a satisfactory systematic account for the parallels in question can be directly and solely based on the *w...w*-property. There is one caveat and two serious objections:

The caveat is that there are a number of differences between *was...w*- and *w*-copy constructions, apparently systematic in nature, in which the *w*-copy construction seems to pattern with *w...daß*-extraction constructions: For one thing, *w*-copy constructions are much better than *was...w*-constructions with respect to complex object-verb predicates; cf. (76) vs. (107-a), and (81) vs. (109):³⁴

- (109) ?Wen scheint es, wen Hans geschlagen hat ?
whom seems it whom H. hit has

Likewise, *w*-copy constructions go along with *w...daß*- rather than *was...w*-constructions with respect to *wh*-/Q-scope ambiguities in the matrix clause (see Pafel (1996, §3/(20)ff.); von Stechow (1996, 18-20)). Moreover, the copy construction does not seem to admit intervening *daß* at all; cf. (106-c). This suggests that,

³³The properties of this construction and its counterparts in languages other than German are briefly described in Höhle (1996, sect. 5); see also Andersson & Kvam (1984, 82f.), Fanselow & Mahajan (1996, 150ff.). As observed by Uli Lutz (p.c.), it may even appear with V2; cf. (i), which looks like the *w*-copy counterpart to *was*-IP-constructions.

(i) Wo glaubst du, wo wohnt er jetzt ?
where believe you where lives he now
'Where do you think, does he live now?'

³⁴See also Höhle (1996, sect. 5), who attributes this observation to McDaniel.

in some respects, the *w*-copy construction is more like a variant of the *w...daß*-construction (the second *wh*-phrase acting like a substitute of *daß*), which is also supported by the existence of *wh*-copy constructions in languages that have long *wh*-extraction but no counterparts to *was...w*-constructions; cf. for example the (relative) copy construction (110) in French (see Eriksson (1981)).

- (110) Jean, que je crois qui est venu
 J. whom I believe who is come
 'Jean who I think has come'

While this does not invalidate the evidence tying *w*-copy constructions to *was...w*-constructions (with the first *wh*-phrase acting like a substitute of *was*),³⁵ it shows that the crucial point for the proposed systematic account, which is that the *w...w*-property has in fact the same systematic status in both constructions, cannot be taken for granted.

The serious objections are these: First, according to (104), the *w...w*-property is a SELECTIONAL restriction attributed to a subclass of normal bridge predicates. Looking at it from a technical perspective, this saddles us most likely with an impossible lexical entry, for selectional restrictions are usually local, and selecting for the *w...w*-property is not. Looking at it from a more substantial perspective, it becomes clear that not even the predicate restrictions in question are really accounted for: postulating the relation between the *w...w*-property and the respective subclass of predicates to be selectional turns it into a merely idiosyncratic relationship, which could just as well be otherwise. That something substantial is missed this way is shown by the fact that the selectional approach cannot be extended to cover the 'parenthetical' restrictions on negated predicates and multiple *wh*-phrases in the matrix clause that the two *w...w*-constructions also have in common (see (106)). But a more adequate approach by which ALL the properties in question are intrinsically related to the *w...w*-property is almost impossible to imagine.

This gets us to the most serious objection: Given the whole array of constructions sharing the whole array of 'parenthetical' properties in question, a selectional *w...w*-property shared just by *was...w*- and *w*-copy constructions cannot possibly be the decisive factor itself. To begin with, it does not cover the parallels to *was*-IP-constructions, for their *w...w*-property is an anaphoric, not a selectional one. But just reinterpreting the *w...w*-property as a surface property covering the *was*-IP construction as well will not help: As pointed out in section 2.2f., the restrictions on *was*-IPs are typical IP-restrictions, hence are also

³⁵That *was...w*- and *w*-copy constructions are variants of each other is the usual view (see Höhle (1996, sect. 5/(26)); Bayer (1996, 229f.)), which is also supported by the strength of their similarity regarding 'parenthetical' features; see (106)–(108). For an attempt to back this view by *wh*-interrogative data from child language acquisition, see Bayer (1996, n. 62). However, there is also well-reasoned opposition to this view (see Fanselow & Mahajan (1996, 152f.)). Be this as it may, given the parallels with *w...daß*-constructions, it is obvious that no attempt to reduce the *w*-copy construction to one of the two parallel constructions will be entirely satisfactory. (See also Sternefeld (1998, 30f.) and section 6.3 below.)

shared by V1-/so-/wie-IPs, which are not +*wh* themselves and, apart from V1-IPs, do not occur in construction with +*wh*-clauses either. The fact that these IP-restrictions do not only overlap significantly with the distinctive restrictions holding for *was...w*-constructions (cf. section 4), but are also shared by the *w*-copy construction, does in no way detract from this correlation with IP-constructions. Rather, it forces a general systematic approach to it: for no matter whether or not *was...w*-constructions derive historically from *was*-IP constructions, the essential question is now how these strong parallels between IP-constructions (including the *was*-IP construction) and the two '*w...w*'-constructions as opposed to the *w...daß*-constructions are to be explained. Clearly, the explanation cannot turn on the *w...w*-property, which most IP-constructions do not possess; so the hypothesis (104), even if properly extended, fails.

6.2.2.2. The second proposal is by Fanselow & Mahajan (1996) who try to capture a subclass of parallels – those concerning the behavior with respect to weak islands – between *was...w*-constructions, *w*-copy constructions and prefinite V1-IP constructions (= 'V2-extractions' for them) by the following hypothesis:

- (111) Fanselow & Mahajan's hypothesis (1996, 150f.):
 "The subclass of bridge verbs under discussion [i.e., those appearing in *was...w*-constructions, 'V2-extraction' constructions and, see p.151, *w*-copy constructions] may be characterized by accepting a CP-complement without any features but the categorial ones."

(111) rests on the observation that, normally, C⁰ may be left unlexicalized only if it selects an operator feature (such as +*wh* in normal interrogative complements, +topic in normal V2-complements) to be lexicalized by the respective operator types, but that the constructions in question are apparently exempt from this condition. This, in turn, is accounted for by postulating the exceptional selectional property spelled out in (111) for the subclass of predicates occurring in these constructions.

Fanselow & Mahajan's proposal is somewhat more general than the first one in that it goes beyond *w...w*-constructions. But it is hardly more adequate:

First, there are again technical problems with the putative lexical entries for the bridge verbs in question: In order to prevent impossible constellations like (112), lexicalizations of embedded Comps by a *wh*-phrase would have to be constrained to *was* (or a *w*-copy) being simultaneously present in the Comp of the higher clause; a similar constraint limiting 'V1-complements' to 'V2-extraction' cases only would have to rule out constellations like (112-c).

- (112) a. *Er glaubte, wen sie sah
 he believed whom she saw
 b. *Er glaubte, wen sah sie
 he believed whom saw she
 c. *Er glaubte, sah sie Fritz
 he believed saw she F.

But then the selectional restriction embodied in (111) is again non-local.

Second, Fanselow & Mahajan's account depends heavily on analyzing Standard German constructions like *Wohin glaubst du, ist er gegangen?* as 'V2-extractions' rather than prefinite V1-IP constructions as proposed in Reis (1995a; 1995b). To be sure, they put forth a number of arguments against this analysis, but none of them stands up under closer scrutiny.³⁶ If so, the scope of their analysis and the content of (111) reduces more or less to the first proposal (104), and is just as ad hoc.

However, even if the V2-extraction analysis were to be accepted for some North German idiolects as they claim (see note 36), the third and most important problem for this approach remains: There is again no hope of extending it (i) to the entire array of features dubbed 'parenthetical' (for example the ban on multiple *wh*-phrases) shared by the constructions they consider, (ii) to the entire array of constructions sharing these features, for these include bona fide parenthetical constructions: medial and final V1-IP-constructions, *so*-IP-/*wie*-IP-constructions, and also *was*-IP-constructions. Hence, an analysis along the lines of (111) cannot possibly provide the answer we are looking for, either.

6.2.2.3. Are there alternative systematic accounts? Under an orthodox perspective, the prospects are rather dim: Any account must turn on grammatical properties (i) which are common to all the constructions sharing the respective 'parenthetical' features, and (ii) to which all these features could be plausibly related. But under our present conceptions of these constructions, according to

³⁶In the main, there are three arguments (Fanselow & Mahajan (1996, 149f.)): (A) Sentences like (i), which admit only a V2-extraction analysis, are claimed to be good for 'a number of speakers (mostly from the North);' (B) binding data as in (ii), which suggest again an extraction analysis; (C) reference to parsing evidence in favor of the extraction analysis provided by Schlesewsky et al. (1996).

(i) Ich frage mich, wen Du denkst lieben die Frauen
I ask myself whom you think love the women
'I wonder who you think the women love.'

(ii) Welche Geschichte über sich_i sagte Hans_i hättest du nicht verbreiten dürfen?
which story about himself said H. had you not spread may
'Which story about himself did Hans say you had better not spread?'

As for (A), everybody I asked (even from the North), judged (i) as downright ungrammatical. Moreover, citing just one, ill-chosen example – a first person root clause, where the matrix clause is especially prone to 'parenthetical' use, thus allowing main clause phenomena in subordinate clauses – against the massive evidence showing the ungrammaticality of embedded V2-extraction cases, is a clear case of careless use of introspective evidence that, in the spirit of Schütze (1996), should be ruled out. – As for (B), inserting *sagte Hans* AFTER *hättest du* in (ii), which would make it a clear V1-IP, is just as (half-way) acceptable as the original version; so appealing to extraction for explaining the binding data is impossible. Since binding data generally support the parenthetical over the extraction analysis for prefinite cases (see Reis (1995a, 54f.)), this argument is refuted. As for (C), suffice it to point out that, according to Farke (1994, 165ff.), processing evidence yields a significant difference between the respective V2-cases and bona fide extractions from *daß*-clauses, which is better explained by also assuming a different, viz., parenthetical analysis for the former. So, at best, the psycholinguistic evidence is divided on the matter.

which V1-/so-/wie-/was-IP-constructions are 'parenthetical' and *was...w*- and *w*-copy constructions are '(LF-)*wh*-movement' structures, they do not have a single grammatical factor in common with which to correlate the shared features, let alone explain them on this basis.

How about changing the present conceptions then? Since the grammars of IP-constructions and *w...w*-constructions look so drastically different in current accounts, I must confess to a lack of imagination concerning orthodox alternatives. All one can say for sure is this: Since, in order to at least fulfil (i), their structural analyses must become more similar, and since assimilating IP-constructions to extraction constructions is out of the question,³⁷ it is the analysis of *w...w*-constructions that will have to become more 'parenthetical' rather than the other way around. But this is surely a most unorthodox prospect.

6.3. The Systematic Perspective on Synchrony II: An Unorthodox Option

Let us admit that the findings of section 6.2 describe an impasse rather than a tangible result. It would be much better if we had at least SOME plausible systematic account, even if it were unorthodox. So let us try to find one.

To this effect, recall the remarkable success of the 'diachronic view on synchrony' described in section 5.2, projecting the putative historical derivation of *was...w*-constructions from *was*-IP-constructions onto the synchronic plane. This success cannot be accidental, so if synchrony is to be kept strictly apart from diachrony, it must have a systematic basis. Thus, the natural strategy to pursue is looking for ways to 'synchronize' the diachronic view under a strictly systematic perspective (thereby also avoiding the traps described in 6.1); this should get us the systematic account we are looking for. How could this be done?

A first step might be the following: In a recent paper, Sternefeld has convincingly argued (1998, 16ff.) that what allows us to produce and understand (certain types of) recursively embedded structures are not innate language-specific mechanisms, but our general analytic-combinatorial abilities, which we apply to simple linguistic structures; from them we extrapolate what correct iterated structures have to look like. The prime evidence cited for this view is experimental: as shown by Dabrowska (1997), handling such complex linguistic structures is learned behavior reflecting nonlinguistic (educational, occupational, etc.) differences between speakers. But there is also suggestive evidence from ontogeny and diachrony supporting this view (Sternefeld (1998, 20f.; 25f.)). If so, the immediate consequence for complex *wh*-constructions is that it is only simple, noniterated structures that we have to account for in terms of Universal Grammar; iteration beyond that is due to nonlinguistic cognitive principles operating in the way sketched above, in other words: the formation of complex, iterated structures is due to analogy. If so, at least one difference between *was*-IP-constructions and

³⁷For a critical discussion of the respective slifting and splitting analyses, see Reis (1995b, sect. 6.1).

was...w-/w...daß-constructions – only the latter can be iterated – loses its DIRECT linguistic significance.³⁸

Now, at least two questions arise: First, what is the analogical process that creates iterated *wh*-structures based on? Second, and crucially, how do we get from the first step to the desired end, which is to understand the (*was*-)IP-features of *was...w*-constructions? Let me first cite again Sternefeld (1998, 26ff.), who uses *was...w*-constructions vis-à-vis *w...daß*-constructions to illustrate possible descriptive consequences of his findings, and in doing so, supplies a uniform answer to both questions: what is crucial throughout is the semantic analysis. The reasoning goes like this:

Suppose that Dayal's compositional semantics for (simple) Hindi style *wh*-constructions is correct for (simple) German *was...w*-constructions, and also note its equivalence to the semantic representation of *w...daß*-constructions. Assume now, that the semantic analysis is a prime characteristic of the constructions in question, also guiding the analogical creation of their iterated versions. If so, a number of desirable consequences follow from this central assumption, thus confirming it: (i) since the semantic analysis is iterable in both variants, it explains why the respective constructions can be easily iterated and how (*w...daß...daß, was... was...w*); (ii) the lack of scope interaction between elements of matrix and dependent clause in *was...w*-constructions is predicted, (iii) the existence of equivalents to the *was...w*-construction in English child language is no longer puzzling, for English has all the lexical elements needed for building up a construction with the respective semantic analysis. (iv) Finally, presupposing semantic equivalence also between *was...w*-constructions and *was*-IP constructions,³⁹ Sternefeld suggests that the peculiar (in my terms 'parenthetical') parallels between these constructions (for example the ban on multiple *wh*-phrases) are also accounted for: "if there is a close semantic relationship between [these] constructions, it is to be expected that any explanation [for the peculiarities of the *was*-IP-constructions] will automatically carry over to [the parallel peculiarities of] the *was...w*-construction." Similarly, if the *was...w*-construction does indeed derive historically from the *was*-IP-construction (as contemplated in Reis (1996)), the semantic equivalence between these constructions is seen as the prime

³⁸Note that there is a certain vagueness in what 'simple, non-iterated structures' are; cf. (i):

- (i) a. Peter kommt 'Peter is coming.'
 b. Peter kommt und Susi weiß es 'Peter is coming and Susi knows it.'
 c. Susi weiß, daß Peter kommt 'Susi knows that Peter is coming.'

While (i-a) is clearly simple and noniterated, and (i-b) arguably so (parataxis and coordination involving innocuous types of 'iteration'), embedding structures like (i-c) are janus-faced: on the one hand, there is just one embedding that looks different from the main clause (complementizer *daß*, V-final position), hence no iteration; on the other hand, there is iteration in terms of clause-structure, main and embedded clause having essentially the same categorial makeup. This vagueness, however, is of no importance in the present context.

³⁹Sternefeld uses appositive *was*-constructions ('colon constructions') for the comparison, which, however, differ from the *was*-IP constructions in crucial respects (allowing i.a. also multiple *wh*-phrases), see above, section 2.1. The point he wants to make clearly rests on the properties of *was*-IP-constructions.

mediating factor (1998, 29).

(i)-(iii) are convincing, confirming the basic correctness of this approach. But (iv), the main point of interest to us, is not as it stands: First, as just repeated above, *was*-IP constructions cannot be iterated. This suggests that the purported semantic equivalence to *was...w*-constructions either does not hold, or is insufficient for explaining the difference. Second, it remains unclear why *was...w*-constructions should have (or retain) typical parenthetical features, for example the predicate restrictions, of *was*-IP constructions. If mere semantic equivalence were responsible throughout, then such distinctions to *w...daß*-constructions should not exist or survive (but as we saw above, there are no signs of drift). Third, many of the peculiar features shared by *was*-IP constructions and *was...w*-constructions are features common to ALL IP-constructions, which include declarative constructions. This does not only show that the purported semantic equivalence between the interrogative constructions is insufficient for explaining these features, it also suggests a reason why this is so: apparently, in any satisfactory account of the parallels in question, the parenthetical factor is irreducible.

What is the 'parenthetical factor' figuring here? Recall from sections 2.1 and 3 that there is a 'meaning' difference between *was*-IP questions and their *w*-extraction counterparts (showing up in first person and rhetorical questions, and, of course, in embedded contexts): unlike their matrix counterparts in extraction constructions, IP-clauses behave as if they were 'extrapropositional',⁴⁰ that is, rather than being part of the proposition to be questioned or asserted they specify the attitudinal perspective from which the host clause proposition is to be questioned or asserted. Whether this is a proper 'semantic' difference or a mere difference in use-value (induced by factors correlating with the syntactic and prosodic differences between IP- and extraction constructions) is irrelevant here; all that matters is that the *was*-IP constructions do have an additional distinctive 'IP-meaning' property vis-à-vis their extraction counterparts.

Using this parenthetical factor, Sternefeld's account of the *wh*-constructions in question may be revised along the following lines: Let us assume (i) that the features dubbed 'parenthetical' in the previous sections can all be related to the 'IP-meaning' property (or the prosodic/syntactic factors inducing it); (ii) that not only the meaning parallels (specified by Dayal's 'semantic analysis'), but also the meaning differences (\pm having the 'IP-meaning') are important characteristics of the respective constructions, to which different strategies in building complex structures correspond: the semantic strategy and the IP-strategy. Whereas the first is iterable, forming more and more complex propositions (which leads, analogously, to multiply iterated structures), the second is (almost) impossible to iterate – which stands to reason given the characterization of the 'IP-meaning' above: asserting or questioning the same proposition under differing attitudinal perspectives just does not make much communicative sense. If so, the difference between *w...daß*-constructions (no IP-features, iterable) and *was*-IP-constructions

⁴⁰The term echoes Lang's (1983) characterization of sentence adverbials, with which IPs have much in common anyway (in particular, they are also hard to iterate).

(IP-features, (almost) noniterable) is already accounted for.

The real challenge are, of course, *was...w*-constructions, which are iterable and have IP-features at the same time. In order to handle this mixture, let us note that (iii) iterability is contingent on embedding, (iv) IP-meanings and the corresponding IP-features are contingent on (prosodically integrated) paratactic structures, which suggests the following approach: Let us try to show that *was...w*-constructions exhibit the 'right' mixture of embedding and paratactic structure such that extraction features (which more or less reduce to iterability) and IP-features may coexist. Now, it is obvious that *was...w*-constructions fulfil not only the semantic, but also the syntactic prerequisite for iterability: Since the related *wh*-clause is verb-final, and part of a prosodically integrated structure, it must be taken as a subordinate clause, likewise the *was*-clause as a matrix clause. In this sense, the entire structure has the appearance of an embedded structure. But there are also certain, though less obvious signs that *was...w*-structures are more 'paratactic' than *daß*-embedding structures: If compared with *daß*-complements, subordinate +*wh*-clauses are in general less clearly part of their matrix clause anyway: they are islands for extraction, they may not act as +*wh*-phrases in the matrix-clause;⁴¹ note also their distinctive behavior with respect to interpretive 'parenthetical' evidence (see note 25), which testifies to a more paratactic relationship. Within *was...w*-constructions, *was*-clause and +*wh*-clause act even more like separate entities, for the *wh*-clause cannot alternate or coordinate with genuine DPs as other embedded clauses can, nor can it occupy a position within the *was*-clause, the syntactic interaction between the two clauses thus being practically zero. Thus, not only the +*wh*-clause, but also the *was*-clause is rather self-contained, a clearly 'paratactic' constellation (in the sense given above, that neither clause occupies a position in the other).⁴² It follows that *was*-clause predicates must be selectionally compatible with elements of the *was*-clause only, not (also) with the dependent +*wh*-clause.

Given this, we have almost all we need for explaining the presence of parenthetical features in *was...w*-constructions: Since *was...w*-constructions are not only 'paratactic' in the way just described but also prosodically integrated in that both clauses belong to one Focus-Background domain, they overlap with the syntactic-prosodic constellation defining IP-constructions in all but one feature: the *was*-clause may be the locus of main stress/the focus exponent, which may never be the case in IP-clauses (cf. 17iv-c). If we assume now (i) that this difference is related to the embedding characteristics of *was...w*-constructions (making them clearly part of sentence grammar; cf. above, section 2.4), (ii) that the paren-

⁴¹As is well known (though still puzzling), a clause like *wo er ist, weiß sie* ([where he is, knows she] 'she knows where he is') is declarative, although to all appearances it has the +*wh*-CP in its initial position. Naturally, there are other speculative accounts one might propose than the one suggested in the text.

⁴²This need not imply that they are hierarchically on one level. Rather, what may be the case is that the *wh*-clause is right-adjointed to the VP very much in the same position assumed for so-called 'embedded' V2-clauses in Reis (1997).

thetical predicate restrictions are contingent on the shared prosodic and syntactic features only (that is, on (17iv-ab)) – both reasonable assumptions (even though we do not know HOW the prosodic and syntactic features in question shape the parenthetical predicate restrictions the way they do) –, then things fall reasonably well into place: All clear IP-features of *was...w*-constructions are accounted for. As for the two features that are subject to variation – multiple *wh*-phrases and intervening *daß* (see section 4.1.2f.) –, both can be related to the –stress feature (17iv-c), which is compatible with the integrated paratactic characteristics of *was...w*-structures but is in conflict with its extraction characteristics. That conflicting patterns on which analogical processes could be based give rise to conflicting results, i.e., to synchronic variation, should not be surprising.

To sum up, we have arrived at last at a systematic account of *was...w*-constructions that covers the major facts. It is clearly unorthodox in many respects, not the least being that analogy rather than *wh*-movement plays the major role in accounting for long *wh*-extraction constructions and that clause linkage, in particular subordination, is treated as a multi-faceted notion, allowing different linking analyses to coexist. Note that in using these devices, the prediction made at the end of section 6.2 comes true: the analysis of *was...w*-constructions has indeed become more 'parenthetical' than the other way around.

To be sure, as it stands, this account may still need the occasional help of diachrony (and the notions going along with it, in particular the notions of grammaticalization or conventionalization of constructions⁴³), e.g., in order to account for the absence of *was...ob*-constructions (cf. section 5.3) or the existence of the *w*-copy construction, which, perhaps by way of multiple analogy and/or contamination (cf. section 5.1), overlaps with *w...daß*- and *was...w*-constructions in inconsistent ways (see also Sternefeld (1998, 30f.)). In this sense, the systematic account is incomplete. Whether or not this is justified (after all, there are idiosyncratic, irregular traits to practically every linguistic phenomenon, which MUST not be covered by a systematic account), will have to be left open here.

7. Final remarks

Let me first summarize the findings of this paper:

- (i) There are striking parallels, hitherto unnoticed, between integrated parenthetical (=IP) *was*-constructions and *was...w*-constructions unaccountable for in the standard treatments of the latter;
- (ii) these parallels generalize to all IP-constructions on the one hand and to the *w*-copy-construction on the other, but are distinctive vis-à-vis *w...daß*-

⁴³What this suggests is that the notion 'construction,' which is currently unpopular in the generative framework (though not in others, HPSG for example entertaining close ties to so-called 'Construction Grammar,' cf. Kathol (1995), Kay (1997)), may have to be readmitted into generative theorizing. (Unless, of course, it could be shown that ALL analogical processes are semantically based, without construction-specific elements coming in. So far, we simply know too little to tell.)

constructions;

- (iii) it is possible to devise a historical account for (i) that yields a remarkably successful 'diachronic view' on the synchronic behavior of *was...w*-constructions; but (a) there is next to no hard historical evidence for this account, (b) the diachronic view misses out on the systematic basis underlying synchronic behavior;
- (iv) proceeding from our present conceptions of German IP-constructions and of German *w...w*-constructions, no systematic account for (i) can be given along orthodox lines without losing sight of the systematic parallels and differences to the constructions listed in (ii);
- (v) a reasonably well-motivated systematic account for (i) can be given along unorthodox lines, complemented in some points by historical considerations related to (iii).

Given (i)-(v), we certainly know a lot more than before, but these results are still a somewhat mixed pleasure: While (i)-(ii) constitute important descriptive generalizations, (iv)-(v) imply that we are at present unable to cope with them unless we employ unorthodox means. Moreover, while (v) possibly meets the systematic challenge posed by (iii-b), it also suggests that (iii-a) might not be a purely academic problem.

In order to make progress, several things could and should be done: Regarding (iii), the obvious thing to do is to improve the historical data base. Regarding (i)-(ii), one might look for additional functional corroboration: if *w...w*-constructions are like IP-constructions rather than *w...daß*-constructions in important systematic respects, would we not expect this to be reflected in use differences, however subtle? Even more important, however, is to realize that the close relationship between (integrated) parenthetical and extraction constructions is not confined to the *was...w*-case studied in this paper, but shows up in quite unexpected places: Thus, so-called *wh*-imperatives as in (113), a quirky sort of *wh*-movement cases (see Reis & Rosengren (1992)), admit only matrix predicates that are also admissible integrated imperative parentheticals; cf. (114).

- (113) Wieviel schätz mal/sag mal/*glaub mir/*sag ihm, daß das kostet
 how-much guess MP/say MP/believe me/say him that this costs
 'Guess/tell me/.../how much this costs.'
- (114) a. Wieviel schätz mal/sag mal/*glaub mir/*sag ihm, kostet das
 how-much guess MP/say MP/believe me/say him costs this
 b. Wieviel kostet das, schätz mal/sag mal/*glaub mir/*sag ihm?
 how-much costs this guess MP/say MP/believe me/say him
 a-b. 'How much pray tell /.../ does this cost?'

And language acquisition data show that children seem to acquire 'conversational' (including 'parenthetical') uses of verbs like *think*, *guess* before using them as mental attitude verbs (see Shatz et al. (1983), Furrow et al. (1992)), which makes us suspect that the early acquisition of the respective extraction constructions

involving the same verbs as bridge verbs might also testify to (transient?) 'parenthetical' features of *wh*-extraction constructions in general and in particular.

What this suggests is that (iv) is not just an accidental flaw in an otherwise correct picture of complex *wh*-constructions and *wh*-movement phenomena, but a clear warning that reality is in parts, perhaps grossly, misrepresented in the traditional picture. If so, the most important task following from (iv) is giving serious thought to what alternative, even if 'unorthodox,' conceptions able to do justice to (i)-(ii) could possibly look like. The proposal outlined in section 6.3 is a first step towards this end. I leave it to future research to improve on it.

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