

On the Form and Interpretation of German *Wh*-Infinitives

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This paper is about a minor and so far neglected sentence type in German: *wh*-root infinitivals such as *Wohin gehen?* 'Where (should one/we) go?'. I concentrate on describing their formal and interpretive properties in detail, and relate these properties in a nonarbitrary manner by suggesting ways in which the salient aspects of their interpretation, that is, (the specifics of) their modality, their subject interpretation, and their illocutionary use, could be derived from the interpretively relevant properties of their form.*

1. Introduction.

1.1. *What the Paper Is About.*

This paper is about one of the minor sentence types in German, infinitival *wh*-root clauses as illustrated in 1.

- (1) a. *Wohin sich wenden?*
where-to REFL turn
- b. *Wo eine Bleibe finden?*
 where a place-to-stay find
- b. *Aber wie die andern für diesen Vorschlag gewinnen?*
 but how the others for this proposal win
- c. *Welche Dämme dieser Lawine entgegensetzen?*
 which dams this.DAT avalanche build-against

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- d. Wem noch trauen?
whom.DAT still trust
- e. Warum denn gleich in die Luft gehen?
why MODAL PART. immediately in the air go (up)

My aim is to determine the essential features of their form as well as their essential interpretive features, and to find out how these features may be related in a nonarbitrary manner. In so doing I hope to lend further support to the assumption that the relation between form and interpretation of sentence types is in principle “derivational” rather than “constructional,”¹ and that this is also true, at least to some extent, for the so-called minor sentence types.

Wh-root infinitivals (“*wh*-RIs”) are a comparatively rare species, even among RIs in German, and have received little attention in the literature.² Therefore, let us consider some reasons at the outset why they are an interesting phenomenon to look at.

First, German *wh*-RIs have an interesting combination of formal properties:

- i. *wh*-RIs are true *wh*-interrogatives;
- ii. *wh*-RIs occur only in root positions, embeddings are disallowed (2);
- iii. *wh*-RIs are based on bare infinitives, *zu*-infinitives are disallowed (3).

¹ Sentence types are often considered as constructional signs, where the relation between form and functional meaning underlying their interpretation is fundamentally arbitrary (see, among others, Akmajian 1984, Altmann 1993). By contrast, a “derivational” approach claims that the use potential of a sentence can be derived from the interpretively relevant properties of its parts and its structure, and this by employing independently justified grammatical and pragmatic means only. A first comprehensive derivational attempt is Brandt et al. 1992, which grew out of the German-Swedish research program “Sprache und Pragmatik” (1987–, directed by Inger Rosengren in Lund). For an overview of the basic ideas as well as the numerous sentence-type studies carried out in this framework, see Reis 1999. Further versions of derivational approaches have been developed by Portner and Zanuttini (see, for example, Zanuttini and Portner 2003) and in Lohnstein 2000. (It should be noted that there are comparable developments within the framework of Construction Grammar proper.)

² The most useful study on RIs, including *wh*-RIs in German, is still Fries 1983; additional information can be found in Weuster 1983 and Lasser 1997.

- (2) Wohin gehen? — *Peter sagte ihm, wohin (zu) gehen.
where-to go — ‘Peter told him where (to) go.’
- (3) *Wohin zu gehen?
where-to to go

Points ii and iii are in stark contrast to English, which on the one hand allows freely for embedded *wh-to*-infinitivals, but only occasionally for root *wh-to*-infinitivals of the same form (cf. 4a–c); on the other hand, bare *wh*-infinitivals are restricted to just a few root patterns (almost exclusively with *why*), and completely disallowed in embedded position (4a–e).³

- (4) a. Peter decided/told him where to go/*where go ...
b. *Whom to trust?/*Whom trust?
c. What to do next?/*What do next?
d. Why go to the movies?
e. *Peter told him why go to the movies.

So we must ask why ii and iii should be true for German if nearly the opposite conditions hold for English.

Second, German *wh*-RIs have interesting interpretive properties, the first two of which it shares with English *wh-(to)*-RIs:

- iv. *wh*-RIs always have nonpast, prospective interpretation (5a vs. 5b);
 - v. *wh*-RIs always have a “modal” interpretation (6a vs. 6b);
 - vi. *wh*-RI subject interpretation is restricted to the speaker, or sets including the speaker (6a vs. 6c);
 - vii. *wh*-RIs are always interpreted as speaker-oriented, quasi-deliberative questions, not as hearer-directed, information-seeking or quizzing questions (6a vs. 6d,e).
- (5) a. Wohin jetzt gehen?
where-to now go
- b. *Wohin gestern gehen/gegangen sein?
where-to yesterday go/gone be

³ See Quirk et al. 1985:839–841, Huddleston and Pullum 2002:872–873, 1175–1176. Regarding main clause *wh-to*-RIs such as 4c, both sources stress their marginal status although describing it in different terms. In any case, there seems to be a striking difference between English and German regarding frequency as well as stylistic markedness.

- (6) Possible vs. impossible readings of 5a:
- 'Wohin soll/kann man [ich, wir] jetzt gehen?'
'Where should/could/may one [I, we] go now?'
 - *'Wohin geht man [ich, wir] jetzt?'
*'Where will one [I, we] go/is one [am I, are we] going now?'
 - *'Wohin soll/kann er [sie, du, ihr] jetzt gehen?'
'Where should/could/may he [they, you.SG, you.PL] go now?'
 - *'Wohin sollst du jetzt gehen?'
*'Where are you supposed to go?'
 - *'Rate, wohin man jetzt gehen soll.'
*'Guess where one is supposed to go.'

This raises not only the question of how iv–vii come about but also what explains this particular combination of interpretive and formal properties of German *wh*-RIs (English showing again that matters could be quite different).

Third, it is interesting that *wh*-RIs with the force of *wh*-questions should exist at all, considering the widespread conviction that bare infinitives go together with present subjunctive and imperative (see, for example, Huntley 1984, Tsoulas 1995, and Lohnstein 2000). Since *wh*-questions are incompatible with both, in German as well as in English (7), one would expect *wh*-RIs to be equally impossible.⁴

- (7) a. *Wann gehe er?
when go.SUBJ he
b. *When be he quiet?
c. *Wann geh einer?
when go.IMP somebody
d. *When be somebody quiet?

Yet they exist (not only in German, but also, for example, in Dutch and Spanish), which raises the question how this fact can be accommodated by existing theories of verbal moods in their relation to sentence mood.

Since the main aim of this paper is to show that German *wh*-RIs do indeed have the formal and interpretive properties i–vii listed above, and to find out how they are related, only selected aspects of

⁴ In fact, in a theory like Lohnstein's, where verbal mood is a principal determinant of sentence mood, their nonexistence could actually be deduced; see Lohnstein 2000:85, 112–119.

the questions just mentioned are taken up below. In particular the comparative questions will be left for future research.

1.2. What the Paper Is NOT About.

Before starting, we need to be aware of certain pitfalls in delimiting the relevant data.

First, in arguing about the properties of *+wh*-RIs like 1, facts about *-wh*-RIs ("bare RIs") such as 8 often provide important evidence.

- (8) a. Jetzt in Ferien fahren.
now on vacation go
b. Radfahrer rechts abbiegen.
bike-riders right turn
c. In Wimbledon gewinnen können.
in Wimbledon win be-able-to

If so, care must be taken not to confuse them with so-called "Mad Magazine" (= MM) sentences such as 9, which are also *-wh* but have entirely different syntactic, prosodic, and interpretive properties.

- (9) a. Peter im Meer schwimmen?!
'Peter swim in the ocean?!'
b. Ich Angst haben?!
'Me worry?!' (cf. What, me worry?)

I show this in detail in section 3.1; in the meantime I will assume that MM sentences are a separate root construction that is not relevant here.

Second, *wh*-RIs as well as bare RIs are independent infinitival clauses in terms of sentence grammar, but they often overlap in form with infinitivals resulting from discourse-dependent ellipsis as in 10:

- (10) a. [Wie viel wirst du dabei gewinnen?] Und wie viel verlieren?
= Und wie viel ~~wirst du dabei~~ verlieren?
'How much will you win by that? And how much lose?'
b. [Wie viel wirst du dabei gewinnen?] Und wie viel er verlieren?
= Und wie viel ~~wird er dabei~~ verlieren?
'How much will you win by that? And how much he lose?'
c. [Peter will gewinnen.] Und ja auf keinen Fall verlieren.
= Und ~~Peter will~~ ja auf keinen Fall verlieren.
'Peter wants to win. And under no circumstances lose.'

However, depending on the grammatical and pragmatic properties of the source sentences, discourse-elliptic infinitivals may have features that are ruled out in bona fide RIs such as 1 and 8 (for example, the overt definite third person subject in 10b or the declarative modal particle *ja* in 10c). Thus infinitival data having arguably a discourse-elliptic flavor must be excluded from the analysis. (We see later that RIs cannot be reduced to discourse-independent auxiliary/modal ellipsis either.)

Also to be excluded are data such as 11 that, although produced by adult native speakers, are arguably more or less subconscious, sometimes jocular imitations of foreigner and baby talk, and thus, strictly speaking, do not belong to German sentence grammar at all.

- (11) a. Du auch noch ein Bier trinken?
 you too another beer drink
 (vs. more "normal" Du auch noch ein Bier?
 you too another beer)
 b. Papa erst noch die Nachrichten angucken.
 daddy first still the news watch

Third, concerning *wh*-RIs proper, infinitival echo-*wh*-questions such as 12 must be excluded, which are, structurally, noninterrogative infinitivals with a *wh*-phrase inserted:

- (12) a. Das Geld WOhin legen? /⁵
 'Put the money WHERE?'
 b. WOhin das Geld legen? /
 'WHERE put the money?'
 (e.g., as a reaction to Das Geld in die Badewanne legen! 'Put the money into the bathtub!' or to Du kannst das Geld in die Badewanne legen! 'You may put the money into the bathtub!')

There is ample evidence for this analysis (plus its consequence that echo-*wh*-questions are *wh*-questions only on the pragmatic level), even if we consider only the main formal characteristics of echo-*wh*-questions, namely variable position of the *wh*-phrase, obligatory rise contour, obligatory stress on the *wh* part of the *wh*-phrase, which are

⁵ As usual, capitals signal the main accented syllable, which in turn marks the focus exponent; "/" marks rising intonation, the rise starting with the focused syllable. (Correspondingly, "v" will be used to signal falling intonation.)

all clearly at odds with bona fide finite *wh*-interrogatives in German (see Reis 1992). The same is obviously true for *wh*-RIs (see section 2.2), so data such as those in 12 must not figure into the analysis of *wh*-RIs.

All three provisos, I believe, constitute legitimate limits on admissible evidence when arguing about a putative sentence type phenomenon as I do. There is good reason to stress this at the outset, for in discussions about RIs it has been frequently disregarded,⁶ and thus the regularities of the "real phenomenon" have often been obscured or misrepresented.

2. The Syntax of *Wh*-RIs.

To recap, the three salient form features of *wh*-RIs are: i. bare infinitival constructions, ii. initial *wh*-phrase, and iii. occurrence in root position only. Let us now examine them in more detail.

2.1. The "Bare Infinitival" Part.

German also has bare infinitival constructions *without* an introductory *wh*-phrase. They occur in root position, as exemplified in 8 and 13, representing mainly two illocutionary functions: as directives (8a,b; 13a,b) and as optatives/expressives (8c; 13c,d).⁷ But they also occur in embedded complement position, as in 14. When embedded, only a small number of predicates productively select them, namely modal verbs (14a) and ECM verbs (14b).

- (13) a. Den Saal verlassen.
 the room leave

⁶ Thus, to give just a few examples, Lasser (1997) and Grohmann and Etxepare (forthcoming) treat MM sentences and RIs the same as a matter of course; Lasser (1997) uses recordings of child-parent interactions as a corpus source for adult RI behavior, thereby treating sentences such as 11b as bona fide adult RIs; likewise she considers sentences such as 11a as cases in point; Fries infers the *wh*-interrogative behavior of MM sentences from an echo-question (1983:43). As for the importance of the remaining proviso, consider in particular section 3.1.

⁷ Note that there are no true *yes/no*-RIs in German. Cases like *Gehen? — Ja.* 'Go? — Yes.' can be easily shown to be noninterrogatives in terms of sentence grammar in that they do not admit the diagnostic particle *denn* (see section 2.2.): **Denn gehen?* For an extensive discussion and a nonsyntactic account of this gap, see Reis 2002: appendix A.

- b. Dann die Kartoffeln in die Pfanne geben.
then the potatoes into the pan put
- c. Ah, dem Jauch alles beantworten, was er fragt.
oh, the.DAT Jauch everything (to) answer what he asks
- d. Noch einmal 20 sein.
once again 20 (to) be

- (14) a. Peter *will/soll/muss/kann* den Saal verlassen.
'P. wants to/is supposed to/must/may leave the room.'
- b. Peter *sieht/hört/lässt* die Besucher den Saal verlassen.
'Peter sees/hears/makes the visitors leave the room.'

The internal syntax of RIs is straightforward: the infinitive occupies the final position, *pace* extraposition, and the positional ordering of arguments and adjuncts follows the usual patterns we observe in the "inner field" (*Mittelfeld*) of German clauses without any remarkable asymmetries.

As for the expression of subjects, predicates embedding bare infinitivals as in 14 usually are raising or ECM predicates, and thus allow overt expression of the infinitival subject. But there are also two control verbs taking bare infinitival complements (*wollen, möchten* 'want'), which behave like all other control verbs in German in that they a. disallow overt embedded subjects, and b. impose a typical case restriction: only verbs having a potentially nominative subject argument can appear in the control infinitive.

Now what about the bare root cases in 13? As a rule they have no overt subjects, hence obey restriction a. Likewise, they always obey restriction b, hence RIs from impersonal verbs or constructions are out (15a,b). Further, there is a semantic restriction licensing only verbs with a nominative argument that is specified as animate/human; see 15c,d.

- (15) a. *Mir geholfen werden. [cf. mir wird geholfen]
me helped be me is helped
- b. *Nicht (dir) grauen. [cf. dir graut vor jemandem]
not you.DAT afraid-be you.DAT is-afraid of s.o.
- c. *100 EUR betragen [der Preis beträgt 100 EUR]
100 EUR be the price is 100 EUR
- d. *Von Professoren wimmeln [der Garten wimmelt von P.]
with professors swarm the garden is-swarmed with P.

So bare RIs are like control infinitives, with an additional semantic restriction superimposed. Traditionally, this is implemented by a sentential structure containing PRO, but following Wurmbrand (2001) one might just as well opt for a subjectless VP, trying to get pragmatic rather than semantic control to do the job.

In view of the fact that bare RIs behave like control infinitives, it is rather surprising that one does find (certain kinds of) nominatives in bare RIs, yet only if the RI has a directive reading; compare 16a to 16b:

- (16) a. Keiner/Linguisten/wer Lust hat, den Saal verlassen.
'Nobody/linguists/whoever wants to, leave the room.'
- b. *Keiner/Linguisten/wer Lust hat, noch einmal 20 sein.
nobody/linguists/whoever wants to, once again 20 (to) be

Clearly, the split is along form-force lines: possible appearance of nominative expressions implies directive reading and vice versa; optative-expressive reading implies impossibility of nominative expressions and vice versa.⁸

Now, how do *wh*-RIs behave with respect to the foregoing conditions? On the whole, they behave like control infinitives just like all other RIs (see 17a,b), and they also share the specific semantic restriction on covert RI subjects; compare 17c,d:

- (17) a. *Wann mir geholfen werden?
when me helped be
- b. *Wo mir nicht grauen?
where me not afraid-be
- c. *Seit wann 100 EUR betragen?
since when 100 EUR be
- d. *Bei welcher Gelegenheit von Professoren wimmeln?
at what occasion with professors swarm

But overt *-wh* nominative expressions are totally ruled out just as they are with optative RIs; compare 16 to 18.

⁸ This is of course an intriguing finding, but hard to make sense of, not the least problem being whether these nominatives are really subjects. For a descriptive attempt to capture the parallels with nominative expressions in imperatives as well, see Reis 1995.

- (18) a. *Wann keiner/Linguisten/wer Lust hat, den Saal verlassen?
 when nobody/linguists/whoever wants to the room leave
 b. *Wem ich/wir/drei von uns folgen?
 whom I/we/three of us follow

To be sure, there are (rare) cases of *wh*-RIs with +*wh* subjects, as in the recorded example 19a below. But many speakers judge these sentences to be bad, and, at any rate, such data have a special status: in order to be acceptable at all, the set of possible answers must have been introduced in previous discourse. With normal *wh*-RIs, which are as a rule initiative, we do not find this dependency. And, in fact, analogous initiative *wh*-RIs seem to be totally ungrammatical; cf. 19b. This seems to indicate that cases like 19a are a special case of discourse ellipsis, allowing us to set them apart from *wh*-RIs proper.

- (19) a. Context: A discussion on who of the 5–6 available forwards /all named/ should be nominated for the World Championship game against the USA:
 [Auch für ihn ist Klose unverzichtbar, wenn die DFB-Auswahl heute Mittag /.../ auf die Amerikaner trifft.] Aber wer neben ihm auflaufen?
 ‘[For him, too, Klose’s nomination is a must in today’s game of the DFB-team against the Americans.] But who (should) be forward beside him?’
 Süddeutsche Zeitung 141, June 21, 2002, p. 37.
 b. *Wer mir jetzt helfen?
 who me now help
 (in the sense of: Wo jetzt Hilfe finden?)
 where now help find

Apart from these nominative quirks, we can conclude that the internal syntax of bare infinitivals, including the bare infinitival part of *wh*-RIs, is always the same and in no way different from that of embedded bare control infinitives.

2.2. +Wh-phrases and Other Wh-interrogative Features.

Finite *wh*-interrogatives have three well-known surface characteristics in German (see Reiss 1991), all illustrated in 20: 1. presence of at least one +*wh*-phrase, 2. always and only one +*wh*-phrase in initial position, and 3. if in root position, a falling intonation contour as the default option. Their syntactic identity can be confirmed by clause-

type sensitive lexical items, in particular the modal particle *denn*, which occurs only in syntactically interrogative clauses (21a,b), thus excluding not only declaratives, but also echo-yes/no-questions (alias declarative “questions”) or echo-*wh*-questions (21c–e):

- (20) Wohin (*wann) ist Peter (wann) gegangen? \ (/)
 ‘Where did Peter go (when)?’
 (21) a. Wohin ist Peter denn gegangen? \ (/)
 ‘Where did Peter go?’
 b. Ist Peter denn nach Hause gegangen? /
 ‘Did Peter go home?’
 c. *Peter ist denn nach Hause gegangen. \
 d. *Peter ist denn WOhin gegangen? /
 e. *Peter ist denn nach Hause gegangen? /

Wh-RIs have exactly the same characteristics; compare all the examples supplied so far, and also 22:

- (22) a. Wo (?*wann) ihn (wann) treffen? \ (/)
 b. Wo ihn denn eigentlich treffen? \ (/)

So the natural assumption is that *wh*-RIs are syntactically just like ordinary root *wh*-interrogatives except for the difference in finiteness.

This assumption can be confirmed if we look more closely at the obligatory *wh*-phrase and its position. Practically all *wh*-phrases appearing in finite *wh*-interrogatives (23a) may also appear in *wh*-RIs, the only clear exceptions being those listed in 23b.

- (23) a. wem/wen/was, wann, wo, wohin, warum, ...
 whom.DAT/whom.ACC/what, when, where, where to, why, ...
 welch-XP, was für-XP, wessen-XP
 which-XP, what for-XP, whose-XP
 P+whXPs
 (mit wem, auf was, bis wann, ... am wievielten Mai ...),
 with whom, on what, until when ... on which-day-of May ...
 wo+P(P)s (womit, wodurch, wovon, ...)
 where with/through/of what ...

 b. *inwiefern, *was [=‘causal’ was], (%wieso)
 in what way, what with what reason

But these exceptions are *wh*-oddities in so many respects⁹ such that they do not really figure into the present analysis; thus, with respect to admissible *wh*-phrases, the parallel to finite *wh*-interrogatives is practically perfect.

The parallel also extends to the A-bar nature of the *wh*-phrase position: extraction constructions are possible (24), which means that the left-peripheral position the *wh*-phrase is in is clearly a nonargument position.¹⁰

- (24) a. Wohin ihm raten, dass er jetzt t gehen soll?
 where-to him advise that he now go should
 b. Wen noch hoffen, dass er t von sich überzeugen kann?
 who still hope that he of himself convince can
 c. Wo jetzt noch versuchen, Unterschlupf t zu finden?
 where now still try refuge to find

⁹ Neither *inwiefern* 'in what way' nor causal *was* 'what' can appear, for example, in the partial *wh*-movement construction:

- (i) a. Inwiefern ist er ein Genie? b. Was schlägt er den Hund?
 in-what-way is he a genius what=why beats he the dog
 (ii) Was glaubst du, *inwiefern er ein Genie ist/*was er den Hund
 what believe you in-what-way he a genius is/what=why he the dog
 schlägt.
 beats

Moreover, *inwiefern*, which always introduces hearer-directed information questions, is incompatible with the interpretive requirements of *wh*-RIs (which are self-directed, dubitative questions, see sections 3.2 and 3.3). As for *wieso*, which is often colloquially used in the sense of *inwiefern* and which a number of speakers do not find acceptable in *wh*-RIs (Ewald Lang, p. c.), we have to take into account meaning differences as well as pragmatic peculiarities (as pointed out by Milner [1973], *wieso* has subjective, disputational overtones, which does not fit well with self-directed, dubitative questions); it is also special in allowing for word-final accent only.

¹⁰ As noted by Joachim Sabel (p. c.), simple *wh*-RIs allow initial *wh*-zum *Teufel* phrases (*wohin zum Teufel jetzt gehen* 'where-the-hell go now'), which never occur in situ. This confirms that the phrases in initial position have indeed been moved, and are in an A-bar position, for a scrambling analysis is not feasible in many cases (in view of the pronoun facts in multiple cases, cf. *wann es wem geben* 'when it to-whom give' vs. **wann wem es geben*, this would lead to ungrammatical sentences like **es wem [wann] geben*).

As to the categorial nature of this position, evidence is hard to come by. But there is at least one pertinent observation (see Reis 1985). Concerning possible accent patterns of (polysyllabic) initial *wh*-words, there is a clear difference between *wh*-V-final clauses (25a,b) and *wh*-V2-clauses (25c). The former allow only for initial *wh*-words with final accent (*woHIN*, *inwieFERN*, *waRUM*, *woMIT*, etc.), whereas the latter also allow for accenting the nonfinal *wh*-part of initial *wh*-words (without inducing an echo-interpretation); and *wh*-RIs clearly side with V2-clauses (26).

- (25) a. Ich weiß,
 wohin er jetzt GEHT. – woHIN er jetzt geht. – *WOhin er
 jetzt geht.
 warum – waRUM – *WARum
 b. Wohin er wohl GEHT? – WoHIN er wohl geht? – *WOhin er
 wohl geht?
 Warum – WaRUM – *WARum
 c. Wohin GEHT er jetzt? – WoHIN geht er jetzt? – WOhin
 geht er jetzt?
 Warum – WaRUM – WARum
- (26) Wohin jetzt GEHEN? – WoHIN jetzt gehen? – WOhin jetzt
 gehen?
 Warum – WaRUM – WARum

As shown by 25a,b, this pattern has nothing to do with \pm root clause status as such, but seems to point to a deeper syntactic asymmetry between the clause types involved. This can be confirmed by observing much the same difference between "complementizers"¹¹ introducing adverbial V-final clauses and their adverbial counterparts. The former always have word-final accent (*daMIT* 'in order to', *obWOHL/obGLEICH* 'although', *nachDEM* 'after') or adopt it when

¹¹As pointed out by an anonymous reviewer, *daMIT*, *nachDEM*, etc. may co-occur with complementizer *dass* in double COMP dialects (*nachDEM dass er gefrühstückt hatte* 'after that he breakfasted had'), hence classifying these elements as "complementizers" may not be correct. This is true, but it does not affect the main point, which is that the word-final stress pattern occurs only when the elements in question are located in the projection of a true complementizer (be it as their head or as their Spec, CP), whereas in overtly V-headed sentential projections (V2-clauses) the same elements do not exhibit word-final stress in Spec position. Hence, conclusion 27 also remains unaffected.

used as such (*trotzDEM* 'although', *insoFERN* 'inasmuch as'), the adverbials preferably nonfinal accent (*DAMit* 'with this', *TROTZdem* 'nonetheless', *inSOfern* 'in this respect'). Obviously, then, word-final stress pattern is canonically associated with C-status. So there must be a C-related difference between the initial (XP) positions in German V2- and V-final clauses (the latter being special in admitting only operator phrases anyway).

In earlier analyses this has often led to assuming a categorial asymmetry such that V2-clauses are IPs (the relevant A-bar position being Spec, I) and V-final clauses are CPs (the relevant A-bar position being Spec, C), or that one or the other is a conflated C/I projection. But no matter how we describe the syntactic difference, the natural conclusion to be drawn from the data just presented is given in 27:

(27) *Wh*-RIs and *wh*-V2-clauses have the same left-peripheral structure.

=> Syntactically, they both differ from *wh*-V-final clauses in exactly the same way.

Since 27 amounts to identifying the *wh*-phrase position of *wh*-RIs with the preverbal position in V2-clauses, which is also open for *-wh* phrases, the question arises, of course, whether there is such a position also in *-wh*-RIs. As far as I can tell, there is no evidence of this: long topicalization yields at best marginal RIs (28), and the few elements subcategorized for this position (*es*, resumptive conditional *so*)¹² may

¹² Note that resumptive *dann* (*wenn-dann* 'if-then'), unlike *so*, is *not* restricted to the position in question (= the so-called "Vorfeld"), compare ia; so the acceptability of the *dann*-version (ib) of 29b is not surprising. Neither is the fact that left dislocation occurs with bare RIs; compare iib, since subordinate *zu*-infinitivals, which clearly have no Vorfeld, also allow left dislocation when in initial position (see iia).

- (i) a. Wenn Peter kommt, kommt Paul dann/*so auch?
'If Peter comes, will Paul then come, too?'
b. Wenn jemand kommt, dann mich anrufen.
if somebody comes, then me call
- (ii) a. Den zweiten Brief, den rechtzeitig wegzuschicken haben wir
the second letter, it in-time to-send-off have we
leider vergessen.
unfortunately forgotten
'The second letter, unfortunately we forgot to send it off in time.'

not appear in RIs at all (29). Moreover, only reorderings between constituents that are licensed in the inner field are to be observed (i.e., scrambling processes), but not reorderings like 30, which could only come about via short topicalization (that is, A-bar movement).

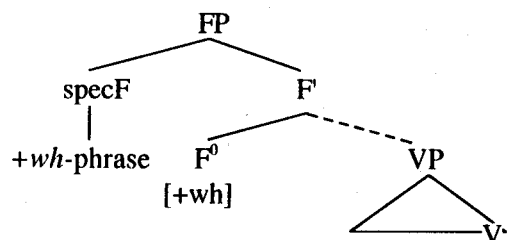
- (28) a. ?*Nach Venedig ihm raten, dass er jetzt t gehen soll.
to Venice him advise that he now go should
b. *Den Chef noch hoffen, dass er t von sich überzeugen kann.
the boss still hope that he of himself convince can
- (29) a. *Es keiner aufstehen.
it nobody up-rise
b. (Wenn jemand kommt,) *so mich anrufen.
(if somebody comes,) so me call
- (30) a. *Den Brief schicken ihm nicht vor morgen.
the letter send him not before tomorrow
(vs. √Den Brief schicken soll man ihm nicht vor
the letter send should one him.DAT not before
morgen.)
tomorrow
b. *Überlegen ihm sein.
superior him (to) be
(vs. √überlegen möchte man ihm sein.)
superior wants one him.DAT be

Since semantic or pragmatic reasons for the failure of 28–30 are hard to imagine, the most likely assumption is that bare RIs are indeed also bare in the sense that a left-peripheral A-bar position and the corresponding functional projection are missing.

Be this as it may, for *wh*-RIs we must assume such a projection, and thus roughly the following left-peripheral structure:¹³

- b. Den zweiten Brief, den sofort wegschicken.
the second letter, it right-away off-send
'The second letter, send it off right-away.'

¹³ As mentioned in section 2.1, I will not take a stand on whether the covert subject in RIs is represented in the syntax (by PRO) or just corresponds to a suppressed variable. For an extensive discussion of the advantages and disadvantages of this alternative, see Reis 1995. What matters here is that, if there is PRO, it is not in FinP.

(31) Left-peripheral structure of *wh*-RIs:

In line with the conclusion given in 27, the structure above VP is different from that of V-final clauses in some relevant respect. A reasonable conjecture is that $FP \neq CP$, with FP representing ForceP in the sense of Rizzi 1997, and CP a pure subordination projection (as suggested, for example, in Brandt et al. 1992). On this basis, the absence of *wh-zu*-RIs in German could be accounted for by crediting German *zu*-infinitivals with the following properties: 1. *zu* overtly signals dependency, hence is (or triggers an empty) C-element heading the subordination projection CP; 2. *zu* is *-wh* (or triggers an empty *-wh* complementizer). Following 1, root *zu*-infinitivals are generally ruled out, as desired,¹⁴ while according to 2 all *+wh-zu*-infinitivals are ruled out, also as desired, since they invariably violate the *wh*-criterion. While point 1 has independent appeal, 2 is at present no more than a stipulation. But it does cover all the German facts and moreover is consistent with what can be observed about the distribution of *wh*-infinitivals across languages: *Wh*-infinitivals appear to be only licit if the infinitive involved does not project/trigger a separate infinitival C-element with substantive feature content.¹⁵ If so, the bare

¹⁴ At first glance, “exclamative” cases like *Sich so zu benehmen!* lit. ‘oneself-so-to-behave’, i.e., ‘(Impossible/Outrageous ...) to behave oneself like that!’ look like counterexamples to point 1. But these cases are much more dependent on previous co- and context than bona fide RIs and also finite exclamatives, so setting them aside as instances of ellipsis seems justified.

¹⁵ This generalization seems to be valid for the entire language sample examined by Sabel with respect to *wh*-infinitivals (1996: ch. 8). How to handle pied-piping viz. “phrasal” *wh-zu*-infinitival constructions such as *Ich weiß nicht, [was zu kaufen] sie ihm geraten hat* (lit. ‘I know not what to buy she him advised has’, ‘I don’t know what she advised him to buy’) on this basis is a question I will have to leave open here. (For some discussion see Reis 2002: appendix B).

FP structure assumed for German bare *wh*-RIs in 31, with $FP \neq CP$, seems to be just what is needed.

Concerning functional structure below FP, the main question is whether there is a Fin projection below FP. At first glance, this seems hard to decide, for the fact that infinitival forms of verbs are unmarked with respect to all finiteness features could either be taken as absence of these features (and hence the absence of the respective projection) or as the presence of a *-finite* feature (and hence the presence of this projection). This feature could then be made to account for the *-en* infinitival affix (after all, pure verb stems cannot appear in syntax). While this looks like an argument in favor of the second option, note that there are truly nonelliptic verbless cases (see Schwabe 1994), where assuming a Fin projection is clearly unmotivated, as the examples in 32 show.

- (32) a. Wohin mit dem Ramsch?
 where-to with the junk
 b. Wohin die Tasche und den Koffer?
 where-to the bag and the suitcase
 c. In den Müll mit dem Ramsch.
 into the garbage with the junk
 d. Die Tasche in die Küche, den Koffer ins Wohnzimmer.
 the bag into the kitchen, the suitcase into-the living room

Since these structures share with RIs comparable syntactic effects (they license a *+wh* A-bar position and do not license overt subjects) as well as comparable interpretations (directive readings, “modal” *wh*-question readings), the common denominator licensing these effects must be “absence of finiteness features.” This clearly supports the first option. Moreover, dependent bare infinitives typically appear in raising or ECM constructions, see 14 above; thus the infinitival ending, viz. a corresponding “*-finite*” feature has no syntactic motivation in triggering the suppression of overt subjects. On the contrary, we might even claim that it is the absence of the Fin projection (including Spec, Fin as a subject position) that accounts for overt bona fide subjects being impossible in $\pm wh$ -RIs (as proposed for imperatives by Platzack and Rosengren [1997/1998]). We will see later on that doing without FinP can also claim interpretive support (see section 3.3.3). So the evidence is very much in favor of the first option, which I hereby adopt.

In sum, I see no evidence for (and hence no point in) postulating more articulated functional structure than just the one FP hosting +*wh*-phrases and corresponding features in the case of *wh*-RIs—what you see with respect to RIs, *wh*-RIs as well as bare RIs, is what you get.

2.3. The Root Restriction of Wh-RIs.

We have already seen in section 1.1 that embedding of *wh*-RIs is extremely awkward. In trying to account for this, there are basically two options: 1. there is a syntactic reason for non-embedability, or 2. there is a lexical or semantic reason—which would be the case if predicates allowing *wh*-infinitives as complements with their specific meaning were more or less missing.

Let us first consider the syntactic option. Why should *wh*-RIs be syntactically unfit for embedding? If what I pointed out in section 2.2 about the parallel between *wh*-V2- and *wh*-RI-structures is correct, we can at least be sure that there *is* a syntactic reason (or one having a reflex in syntax), since *wh*-V2-structures cannot be embedded either:¹⁶

¹⁶ There are apparent counterexamples (such as *wenn man überlegt, was soll ich tun, ...* 'if one ponders what should I do'), as first noted in Pasch 1991. Krifka (2001, 2002) presents ample evidence that what is at stake is the embedded occurrence of "main clause" interrogative characteristics in general, and that they are restricted to embeddings under intensional predicates. While the data are convincing, the crucial point is that they do not show that intensional predicates *syntactically* embed *wh*-V-final and *wh*-V2-interrogatives (*ob*- and *V1*-interrogatives, respectively). All they show is that special semantic-pragmatic circumstances may license main-clause characteristics also in (apparently) embedded environments. Evidence for this are the many embedding environments under intensional predicates where *wh*-V2 is impossible, see examples ia–e. Moreover, in view of the syntactic noncomplement behavior of dependent V2-clauses in German (see Reis 1997), the respective *wh*-V2-clauses may not be in complement position at all, examples ic–e being suggestive of this.

- (i) a. Paul fragte ihn, wohin er ginge/*wohin ginge er.
'Paul asked him where he went.'
- b. Auch wenn Peter sich wundert, wer ihn verteidigt/*wer verteidigt ihn,...
'Even if Peter wonders who will come to his defense, ...'
- c. Wenn jeder darüber, wer er ist/*wer ist er, zu oft nachdenkt, ...
'If everybody gets too often into deep thought about who he is.'
- d. Er hat es sich überlegt, wen man einladen soll/*wen soll man einladen.
'He gave a lot of thought to whom to invite.'

- (33) Peter überlegt/erkundigt sich/errät/ist unsicher/ist es egal/... ,
Peter wonders/enquires/guesses/is uncertain/doesn't care
wie man das erklären kann/*wie kann man das erklären.
how one this explain can how can one this explain

Therefore whatever property of *wh*-V2-clauses accounts for their unembedability will also account for the unembedability of *wh*-infinitives.

While this reasoning is perfectly sound, the problem is of course that we have not identified the property in question. So let us also consider the lexical-semantic option. Here, comparison with English is helpful. As pointed out by Bhatt (1999: ch. 4), selection of embedded *wh*-to-infinitives depends on two things: first, the predicate must subcategorize for +*wh*-complements, and second, it must be semantically compatible with the modal propositional meaning. Thus, in terms of the classification by Karttunen (1977), verbs of knowledge, decision, two-way communication, etc. allow it (34a–f), while verbs of conjecture, relevance, and dependency do not (34g–i); in other words the distribution is governed by lexical semantics.

- (34) a. He didn't know/forgot/learned whom to thank for it all.
b. People decided who to vote for in the last 2 weeks of October.
c. Computers tell people what to do and when to do it.
d. The officials are discussing how to run the campaign.
e. The EPA will study where to create markets for recycled products.
f. He wondered/called to ask where to buy the album.
g. *John predicted who to invite.
h. *It is important who to talk to at the party
i. *What to do depends on where to be.

(examples [abridged] from Bhatt 1999:117–119)

Importantly, as also pointed out by Bhatt, in English it does not matter at all whether the predicate is compatible with (–*wh*) infinitival complements (compare *wonder* or *discuss*, which are not, but still take infinitival +*wh*-complements). If so, lexically, *wh*-infinitives should be likely to occur likewise in embedded positions in German. But they do not: All German bare *wh*-infinitival equivalents to 34 are out. The only way to account for this semantically would be to conjecture that

- e. Wen man einladen soll/*wen soll man einladen, überlegte Niemand.
'Nobody gave a lot of thought to whom to invite.'

the semantics of *wh*-infinitivals in German is much more specific and hence incompatible with practically all +*wh*-selecting predicates.

We cannot exclude this conjecture right away, for as we see in section 3.3, *wh*-RIs are so special that the predicates able to reflect the self-directed deliberative and at the same time uncertain attitude of speakers uttering German *wh*-infinitivals are rare. But they do occur, compare the examples in 35. Yet the sole example to be judged completely acceptable when embedding *wh*-infinitivals is *nicht wissen* 'not know', and this only when combined with the embedded *wh*-infinitival *was tun* 'what (to) do'; see 36a. Other cases deemed marginally acceptable almost invariably contain either the same matrix predicate as 36a or the same embedded *wh*-infinitival (36b–d), but there is no free productivity whatsoever, as the examples in 36e–f show.

- (35) nicht wissen, unsicher sein, sich fragen, sich überlegen
not know, be unsure/uncertain, ask oneself, wonder
- (36) a. X weiß/wusste nicht, was tun.
'X doesn't/didn't know what to do.'
- b. ?X war unsicher/fragte sich/überlegte sich, was tun.
'X was unsure/asked himself/wondered what to do.'
- c. ?? X wusste nicht, wem noch trauen/wohin sich jetzt wenden,
wozu nach Paris fahren/...
'X didn't know whom to still trust/where to turn to now/what to go to Paris for/...'
- d. ?Wusste X (nicht), was tun?/ ??Wer von euch weiß, was tun, ...
'Did X (not) know what to do?'/ 'Who among you knows what to do ...'
- e. *Ist X unsicher, wem noch trauen/wohin sich jetzt wenden?
'Is X uncertain whom to still trust/where to turn to now?'
- f. *Wenn X sich überlegt, wozu nach Paris fahren/wohin gehen/...
'If X wonders what to go to Paris for/where to go/...'

What this suggests is that 36a is a more or less fixed expression,¹⁷ and 36b–d no more than analogical extensions thereof; as 36e–f show, they do not reflect a productive syntactic process. In other words,

¹⁷ A further fixed expression involving *nicht wissen* is *nicht wissen* + "embedded" verbless sentence fragment: *er wusste nicht, wohin mit X* 'he didn't know where-to with X', which hardly occurs with any other predicate.

embedding *wh*-infinitives is not licensed by the grammar of German; *wh*-infinitives are indeed just root infinitives.

3. The Interpretation of *Wh*-RIs.

Turning now to the interpretation of *wh*-RIs, there are mainly the following aspects to consider, which I will take up in turn: first, the modal interpretation of *wh*-RIs, and in connection with it the nonpast, "prospective" orientation of *wh*-RIs; second, restrictions on subject interpretation; and third, restrictions on illocutionary question use potential.

3.1. The Modality of *Wh*-RIs.

3.1.1. Possible Modal Interpretations.

All examples of *wh*-RIs cited so far have a modal interpretation. The easiest way to see this is by giving finite paraphrases compatible with actual and possible contexts of the *wh*-RI in question: All of them contain a modal. If we go through the possible modal readings they represent, we find clear restrictions with respect to all three parameters that define modal meanings:¹⁸ their *modal base* is always circum-

¹⁸ These parameters are, following Kratzer (1991), 1. modal force, 2. modal base, and 3. ordering source. Parameter 1 pertains to the possibility/necessity of a given proposition *p*; it admits of degrees. The explication of the second and third parameters refers to "conversational backgrounds," relative to which the modal force of *p* holds. Parameter 2 posits circumstantial (in view of the facts/the circumstances) vs. epistemic (in view of what we know) conversational backgrounds as basic (quotative-evidential modal uses having either the epistemic or an empty modal base, with "hearsay" acting as the ordering source). It is again conversational backgrounds that act as the ordering source (parameter 3) over the worlds made accessible by the modal base, relative to which the modal force of a given *p* is (also) to be evaluated. Regarding circumstantial modality, which is the one relevant for RIs, examples of pertinent backgrounds are deontic ('in view of certain obligations'), bouletic ('in view of certain desires'), teleological ('in view of certain aims'), realistic ('in view of the facts'), ability ('in view of certain capacities'), preferential, stereotypical, etc. Roughly speaking, we might say that the first parameter specifies the basic modal meaning of an expression, the second, its main meaning variants, and the third, further contextual variations. Thus, the modal *können* 'can/may' allows for epistemic/circumstantial ambiguities (cf. *hier könnten Pferde leben* 'horses could/might live/be living here'), and often for a considerable range of circumstantial readings, for example, *Joe kann stundenlang schwimmen* 'J. can/may swim/be swimming for

stantial, and epistemic and evidential readings are out. As to their *modal force*, there is apparent variation between possibility (evidenced by *kann/könnte* paraphrases) and necessity (usually evidenced by *sollen* paraphrases) (see examples in 37), and with *warum-/wozu*-RIs even strong necessity (evidenced by *müssen* paraphrases); compare examples in 38.

- (37) a. Was tun? [soll > kann/könnte]
 what do [can/could/should]
 b. Wohin sich wenden? [kann/könnte/soll]
 where-to REFL turn
 c. Wo eine Bleibe finden? [kann/könnte > soll]
 where a place-to-stay find
 d. Wo eine Bleibe mieten? [soll/kann/könnte]
 where a place-to-stay rent
 e. Wie die Wahlen gewinnen? [kann/könnte > soll]
 how the elections win
 f. Aber wen diesmal wählen? [soll > kann/könnte]
 but whom.ACC this-time vote-for

- (38) a. Warum/Wozu darüber traurig sein?
 why there-about sad be
 'Warum/Wozu muss/soll(te)/*kann/*könnte man darüber traurig sein?'
 'Why must/should/*can/*could one be sad about it?'
 => 'Man muss/soll(te) darüber nicht traurig sein.'
 'One need/should not be sad about it.'
- b. Warum nicht ins Kino gehen?
 'Why not go to the movies?'
 'Warum kann/könnte/*muss/*soll(te) man nicht ins Kino gehen?'
 'Why can't/couldn't/needn't/*shouldn't one go to the movies?'
 => 'Man kann/könnte ins Kino gehen.'
 'One can/could go to the movies.'
 [= proposal to go to the movies]

hours' (example supplied by Veronika Ehrich, p. c.), which has at least an ability, a realistic, a bouletic, and a deontic reading (his abilities, the factual conditions, his preferences/desires, his duties respectively allow J. to swim for hours).

As far as I can determine, this variation is related to the same factors that according to Bhatt (1999:132–136) influence the variable modality of embedded *wh*-infinitivals in English. These are (apart from the nature of the embedding predicate, of course) the *wh*-phrase involved (*wo* 'where'/'*wie* 'how' favoring *kann/könnte*-paraphrases, cf. 37c,e vs. 37d,f), the infinitival predicate (cf. the modal correlation with more agentive [37d,f] vs. less agentive verbs [37c,e]), and of course also context. If so, it seems reasonable to assume that there is a common modal denominator systematically associated with *wh*-RIs, and that the observable variation derives from the pertinent co- and contextual factors interacting with it (this is what Bhatt assumes in fact for English). I examine this assumption in more detail immediately below. For the time being, we may consider the markedly different modal behavior of *warum-/wozu*-RIs, as shown in 38.¹⁹ Of course, it would be desirable to reduce it to the same modal denominator, but for the time being I will set *warum-/wozu*-RIs aside as a potentially special subtype, basing the argumentation from now on primarily on cases like 37.

Concerning the *ordering source*, viz. admissible *conversational backgrounds*, *wh*-RIs do not allow backgrounds licensing realistic readings ('in view of the factual conditions') (39a) or ability readings (39b).

- (39) a. i) Wo kann man den Sonnenuntergang sehen?
 'Where is it possible to have a good view of the sunset?'
 ii) Wo den Sonnenuntergang sehen? (i ≠ ii)
 where the sunset see
 = 'Where should one/*is it possible to see the sunset?'
 b. i) Wann kann ich Klavier wie Brendel spielen?
 'When will I be able to play the piano like Brendel?'

¹⁹ A suggestive illocutionary restriction on *wh*-infinitivals correlating with this distinctive behavior is sketched in section 3.3.2. Note that English *why*-infinitivals are also very special: On the one hand, they are more or less the only ones occurring as bare RIs (*why (not) call him*, etc.), having the same "rhetorical" flavor as their German counterparts, which supports treating them as a special subtype. On the other hand, embedded *why-to*-infinitivals (**I don't know why to come*, etc.) seem to be completely out (Rajesh Bhatt, p. c.), so perhaps a restriction analogous to the one discussed in section 3.3.2 is operative also in English.

- ii) Wann Klavier wie Brendel spielen? (i ≠ ii)
 when piano like Brendel play
 = 'When should one/*is one able to play the piano like Brendel?'

Neither are they compatible with strictly deontic backgrounds ('in view of what the law or pertinent obligations require'), in other words we do not find obligation and permission readings, compare the examples in 40a,b.

- (40) a. [A. Du musst/sollst dich schnellstens beim Chef melden.]
 'You're supposed to contact the boss as soon as possible.'
 i) B. [Ok.] Bis wann muss/soll ich ihn kontaktieren?
 'Ok. By when do I have to contact him?'
 ii) [Ok.] #Bis wann ihn kontaktieren? (i ≠ ii)
 by when him contact
- b. [Bekanntmachung: Jagd auf Hasen von Mai bis Oktober erlaubt.]
 Notice: Hunting hares permitted between May and October.
 B (seeing the notice):
 i) Hm. Wann kann/darf man wohl Fasanen schießen?
 'Hm. When is it permitted to hunt pheasants, I wonder?'
 ii) Hm. #Wann Fasanen schießen? (i ≠ ii)
 hm. when pheasants hunt

Rather, *wh*-RIs seem to be more or less restricted to bouletic-teleological backgrounds ('in view of my wishes, plans, aims'). This restriction is no doubt related to their specific question force, to which I return in section 3.3. At any rate, it is *not* shared by RIs in general, which are mainly directives, and as such may have deontic readings. (It also constitutes a major difference to English where, if allowed by the embedding predicate, deontic readings of *wh-to*-infinitivals freely occur.)

To sum up, the modality associated with *wh*-RIs always has a circumstantial base, varies between possibility and (weak) necessity as to force, and selects bouletic-teleological conversational backgrounds. While this combination can almost always be paraphrased by *sollen*, we cannot simply identify the modality of *wh*-RIs with the (circumstantial) meaning of this concrete modal verb. On the one hand, there are many uses of *sollen* (in particular the strictly deontic ones) *wh*-RIs do not allow for. On the other hand, we find preferential possibility readings in a number of cases, which no subtype of finite *sollen*-

sentences allows, not even the subtype recognized by Bech (1949:12) where the "extrasubjective modal factor" characterizing *sollen* in general (Bech 1951:4–12) is instantiated by one's own plans or intentions.²⁰

3.1.2. Where Does the Modality of RIs Come From?

What, then, is the source of this modality? A popular hypothesis of earlier days was ellipsis of an underlying finite modal verb of the appropriate kind (for some references see Weuster 1983:16–20); this way, the modal force as well as the infinitival form of RIs in general was claimed to be accounted for. Taken literally, this hypothesis cannot be trusted, at least not for German. It is ad hoc in that the putative "ellipsis" would have to be: first, restricted to certain interpretive variants of the modal that cannot be syntactically identified; second, confined to root clauses; third, accompanied by obligatory deletion of the subject; and fourth, made responsible for distinctive interpretive effects between "source" and "elliptic" sentences that bona fide ellipses do not have (consider example 40, as well as the effects described in sections 3.2 and 3.3, which would remain totally unexplained this way). Moreover, bare RIs and their alleged source sentences show partially different cooccurrence restrictions (see Weuster 1983:75–81, and in particular Fries 1983:125–134) going in both directions; consider, for example, the restriction with respect to ethical datives (41a) and with respect to modal particles like "strongly insisting" *bloß* (41b).

- (41) a. i) Du sollst mir nicht zu spät kommen.
 you should me not too late come
 ii) *Mir nicht zu spät kommen.
 me not too late come
- b. i) ?*Du sollst ihm BLOSS nichts kaufen.
 you should him MODAL PART. nothing buy
 ii) Ihm BLOSS nichts kaufen.
 him MODAL PART. nothing buy

²⁰ As pointed out in Ehrich 2001:161–167, Bech (1949, 1951), still the most influential treatment of the subject, may be criticized for not admitting the existence of "passive" *sollen* (analogous to the existence of passive *wollen*, which he does acknowledge), which yields possibility readings. But since these readings are always bound up with matrix negation (Bech's "negatio recta"), the point made above still holds.

In short, the elliptic modal hypothesis does not seem viable for RIs in general nor for *wh*-RIs in particular. Therefore, we need to consider other options.

Turning to Bhatt (1999) for inspiration, who, after all, deals with "covert modality in non-finite contexts," we find that for him, the source of modality is the [+wh] infinitival complementizer. The structure of his argument is straightforward:

(42) Source of modality of English *wh*-infinitives according to Bhatt (1999):

- a. Infinitival subject relatives (*the first to come*, etc.), which are reduced clauses, hence lack a CP and a complementizer in CP, are often nonmodal;
 - b. Infinitival nonsubject relatives (*the thing to do*) and *wh*-infinitivals (*know what to do*), which must be CPs (marked by [+wh, +inf] in C⁰), are always modal;
- = (a.+b.) => Presence of the C⁰[+wh,+inf] complementizer correlates with modality;
- => The source of the modality in infinitival questions is the [+wh] infinitival complementizer.

Bhatt implements this by associating with C⁰[+wh,+inf] a "silent modal" (with its semantics restricted to circumstantial deontic readings).

Bhatt's proposal is quite attractive for English. But apart from implying an arbitrary association between form and modal meaning, it is empirically untenable for German. His proposal predicts *ceteris paribus* that where there is no +*wh* operator (be it relative or interrogative) in infinitivals, modality is not systematically present either. Hence, the bare RIs of German should not systematically have modal interpretation. But this is in fact what we find: Whenever we have bona fide cases of RIs, their meaning invariably involves modality. And whenever we find nonmodal infinitival root structures, they turn out to be the sort of "irrelevant evidence" ruled out in section 1.2—either they are discourse-elliptic or specimens of reduced varieties (foreigner/baby talk), as in the nonmodal cases in 10–11, or they are, most frequently, MM sentences, as in 9 and 43.

- (43) a. [Peter trinkt Bier/Trinkt Peter Bier?]
'Peter drinks beer/Does P. drink beer?'

- Peter (und) Bier trinken?/. [-modal]
'Peter (and) drink beer?'
- b. Der (und) Bier trinken?/. [-modal]
'This one (and) drink beer?'

But what supports the claim that MM sentences are indeed a type of infinitival structure entirely different from RIs? Restricting myself to German, there is substantial support for the claim,²¹ which I summarize in brief below:

First, the syntax is different in three crucial respects. 1. MMs allow for a wide variety of nonquantificational, usually definite subjects, while RIs do not allow subjects (or, in the case of directives, different ones). 2. The "subject" and the "predicate" parts of MMs are not syntactically integrated, as shown by insertable *und* as well as strict subject-predicate ordering, for example, *Peter (und) dorthin gehen?! 'Peter (and) go there?!' vs. *Dorthin Peter gehen?!*, whereas RIs are clearly integrated (*Keiner (*und) dorthin gehen!, Dorthin keiner gehen!*). 3. There are MMs from impersonal constructions (*Mir und schlecht werden!* 'Me and sick become!'), which is totally impossible for RIs; see the examples in 15 and 17 above.

Second, their prosody is different in two crucial respects. 1. While RIs form one focus-background domain, the subject and predicate part of MMs usually (if *und* is present, obligatorily) form separate ones, indicated by two main accents. 2. The overall intonation contour (which may end in a rise or a fall; compare 43a to 43b) often has the expressive flavor known from exclamatives and echo-questions (measurably so, as demonstrated in Oppenrieder 1988). Again, this characteristic is not shared by RIs.

Third, and systematically related to their formal properties, their interpretive properties are different in two major ways. 1. Unlike RIs, MMs are clearly the topic part of discourse-dependent topic-comment structures, which take up a contextually given proposition in the corresponding subject-predicate form, and convey (often made explicit in a comment sentence) an attitude of incredulity, surprise, or outright rejection (in this case coupled with falling contour) with respect to this

²¹ This summary is largely based on pertinent observations in Fries 1983, Weuster 1983, and in particular on the insightful analysis in Lambrecht 1990:219–226, who uses the German data for a critical review of Akmajian's (1984) seminal treatment of MM sentences.

proposition (see Lambrecht 1990). 2. This also reflects the function the infinitive performs in MMs: While it is certainly interpretively important that the predicate part appearing in MMs is never finite, only verbal predicates appear in the infinitive; nonverbal (in particular adjectival and nominal) predicates may appear without one; see 44. In other words, as Lambrecht aptly puts it (1990:221), the use of the infinitive in MMs is due to its use as quotation form, and, crucially, no necessary feature of the construction to begin with.

- (44) [Ist Peter schlau/Linguist?]
 is Peter smart/linguist
 Der (und) schlau/Linguist (sein)?/. [-modal]
 this one (and) smart/linguist (be)

In sum, MM sentences, regardless of whether or not they have a modal interpretation,²² have nothing to do with RIs. The same seems to be true for the marginal type illustrated in 45, which shares some of the distinctive features of MMs (in particular the bipartite *und*-structure), and may also have nonmodal interpretation. So grouping them with MMs (as proposed in Weuster 1983:72–73) does not seem out of place.

- (45) Erst maulen und dann nicht kommen. [-modal] “quasi-MM”
 first complain and then not come

The upshot is that *all* bona fide RI structures systematically have modal meanings in German, which leads to the conclusion given in 46:

²² MM sentences are assigned modal interpretations in Grohmann 2000 and Grohmann and Etxepare forthcoming, captured in the respective analyses either by assuming a silent “modal” or by an exclamative operator inducing the modal flavor. As far as I can see, however, this kind of “modality” is quite different from that of RIs in that it practically reduces to the incredulity element associated with MM sentences, from which the “impossible” nature of the proposition in question can (but need not) be inferred. Since this element may also be present in clearly nonmodal cases (for example echo-questions), MM sentences should probably be better classified as basically “nonmodal.”

- (46) Source of modality in German RIs:
 a. All bona fide RIs in German have modal interpretation;
 b. Not all bona fide RIs in German involve a [+wh] complementizer (nor a bona fide A-bar position);
 = (a.+b.) => Modal interpretation correlates with lack of finiteness (plus root position).
 => The source of the modality of RIs in German is lack of finiteness (in root position).

How does this correlation come about? Can we say that bare infinitivals just have a grammatically determined “modal meaning”? In view of the embedded cases we cannot. As comparison between the two main types—ECM-constructions and modal verb constructions, see 14 above—shows, the modality of the construction depends on the kind of matrix verb, hence is projected from it; it is not an inherent property of bare infinitivals.²³ If so, just postulating an appropriate silent modal as the meaning of German bare infinitivals *in root position* would be nothing more than restating the facts. But can we do better and derive the correlation by pragmatic inference? It would have to be a case of pragmatic enrichment pertaining to utterance interpretation, starting from the two formal factors about bare infinitivals correlating with modality, namely their lack of finiteness and their root status, as shown in 46. Here is an informal first sketch:

- (47) On deriving the modality of RIs—a first sketch:
 a. A sentence lacking finite specification is not specified for tense/mood, hence its proposition is not anchored with respect to time nor with respect to the factual world.
 b. An independent sentence must have communicative force, the carrier of the communicative force being the root clause

²³ This would be a valid conclusion even if ECM-constructions were set aside, for from complements of type X being compatible with modal matrix verbs only, it does not follow that X has a modal meaning itself. It would, however, go together with the position taken in Portner 1997, which implies, among other things, that the conversational force (alias “sentence mood” in other frameworks) of root infinitivals reflects the semantics of the predicates embedding the same type of infinitivals. But since *wh*-infinitivals cannot be embedded (see section 2.3), this way of arguing about the constant contribution of RIs (including *wh*-RIs) to utterance interpretation is not readily available here.

(= Bach and Harnish's [1979] "communicative presumption").

- c. In order for a sentence to have communicative force, its proposition must be referentially anchored (it cannot be just "nonreferential" as in a).
 - d. The infinitivals in question (RIs) are independent clauses in root position and obviously meant to make a communicative contribution.
 - e. Point d takes precedence over point a (cooperative principle).
- =>
- f. In order to fulfill c (necessitated by b, d, e), the literal meaning (a) of RIs must be enriched by referentially anchoring their proposition.

(...)

=> (desired conclusions):

- C The minimal enrichment compatible with the literal meaning (a) is anchoring the propositions of RIs with respect to the set of possible worlds, to which they thus enter a modal relation.
- C' The default utterance interpretation of RIs always involves modality.
- C'' The kind of modality involved is open to specification by co- and context (including the modal prerequisites of the illocutionary force associable with RIs by virtue of their grammatical and lexical makeup).

C describes a systematic pragmatic connection between nonfiniteness and modality, from which, given a–f, the desired core conclusion C' immediately follows. In view of the variable modal interpretations allowed by *wh*-RIs and RIs in general, C'' is a necessary complement to C', hence something one would also like to derive, but cannot derive from C as stated. However, if we take into account that C requires "minimal enrichment" and thus the weakest possible circumstantial modal relation for the proposition involved, it follows that the basic modal force of RIs should be something like weak possibility. If so, it stands to reason that C'' can be easily fulfilled; in this sense, C'' also follows from C.²⁴

²⁴ Note that 47 is not intended to turn $\pm wh$ -RIs into finite objects expressing full-fledged propositions of the usual kind, but just to turn them into interpreted objects. For a meaning of "proposition" wide enough to cover the respective meaning content of RIs, see Portner 1997: section 2.

If we accept that the analysis in 47 can and should be applied to RIs in general, then the covert modality of *wh*-RIs is also accounted for.

Concluding this section let me briefly turn to the observation that RIs are always nonpast/prospective, that is, as Lasser puts it (1997:69, see also p. 128), "the predicate of an RI cannot refer to a completed event." How can we account for this fact? The analysis in 47 may be invoked here. If propositions in bare infinitival form are not anchored with respect to time nor with respect to the factual world as spelled out in 47a, they cannot refer to past events nor have counterfactual reference to the past (as irrealis optatives would have)²⁵ to begin with. Moreover, if the meaning of RIs is systematically enriched to a modal interpretation as spelled out in 47a–f, C–C'', then the propositions of RIs are interpretively in the scope of a (nonpast!) modal meaning. It is true that some modal meanings do combine with propositions referring to completed events, that is, epistemic meanings (48a), quotative-evidential meanings (48b), and generic deontic meanings (48c):

Concerning 47 as it stands, two problems have been raised (mainly by Ingo Reich, p. c.) that merit further attention: First, by deriving the modality of RIs first, then the interpretation of the indexicals, then the illocutionary interpretation, an order is imposed that might involve circularity (the derivation of subject interpretation, for example, seems to presuppose concrete speech-act interpretations). My answer to this is, at present, that I am not convinced that the various aspects of the inferential interpretation process of RIs must happen in a fixed order (although the priority of speech-act interpretation is certainly an intriguing possibility). In any case, the order of treatment was not intended to reflect one. Second, why should circumstantial (rather than epistemic) modality be the most basic modal relation (as implied by the comments to C–C'')? I see two reasons for assuming this: On the one hand, historically, elements having circumstantial meanings may develop epistemic meanings, and often do, but not vice versa. On the other hand, nonfinite root structures may never have declarative force (see also 3.3 below), so a prerequisite for epistemic modality is systematically lacking in RIs. This leaves circumstantial modality as the only option. (Given the continuum from weakly possible to necessary states of affairs, it follows that the former is posited as the weakest modal relation).

²⁵ Trying to force such counterfactual optative RIs yields practically unacceptable results, such as *?*Damals Janis Joplin gehört haben!* (lit. 'then Janis Joplin have heard', 'to have heard Janis Joplin at that time').

- (48) a. Paul kann/muss in Rom gewesen sein (nach allem was ich weiß).
 'Paul may/must have been in Rome (in view of what I know).'
- b. Paul soll/muss in Rom gewesen sein (nach allem was man hört).
 'Paul shall/must have been in Rome (in view of what one hears).'
- '(Strong) rumor has it that Peter was in Rome.'
- c. Ein Germanist soll(te)/muss Goethes Faust gelesen haben.
 'A Germanist ought to/must have read Goethe's Faust.'

However, none of these is a possible meaning of an RI. Epistemic and quotative meanings are out because the minimal (that is, most basic) modal relation RIs have to enter according to the first conclusion in 47 is circumstantial. The past-directed generic deontic meaning is out because it violates an illocutionary felicity condition in the case of directives RIs (which are intrinsically future-directed acts), as well as the condition on subject interpretation in the case of optative and *wh*-RIs (which otherwise, that is, by way of illocutionary force, should be compatible with past-directed propositions), to which we will turn in the next section. Hence, propositions of RIs are always in the scope of modal meanings requiring reference of *p* to a nonpast/prospective or noncompleted event, which brings us to the desired conclusion that they *always* refer to events of just this kind.

Although there are certainly gaps and leaps of intuition in this reasoning, it seems suggestive enough to conclude that trying to systematically link the nonpast/prospective restriction to the modal properties of RIs is the correct analysis. For the time being, I have to leave it at that.

3.2. Restrictions on Subject Interpretation in *Wh*-RIs.

Let us now turn to the subject interpretation in *wh*-RIs. No matter how we represent the silent subject argument in RIs in syntax, whether by PRO or nothing (that is, by just suppressing the respective argument variable), one thing is clear: In order for RIs to receive a sensible utterance interpretation, the subject reference must be specified.

The possible candidates for this are limited to the participants in the utterance situation: speaker(s) and addressees. And this is in fact what we find in RIs. In other words, there are no identifications of RI

subjects with exclusively third person referents outside the speech situation.

This explains immediately the additional semantic restriction RIs have vis-à-vis normal control infinitives, compare 15 and 17 above. If no third person subjects are possible, predicates selectionally requiring them cannot occur in RIs.

The restriction of subject interpretation to participants of the speech situation in itself makes sense; since the RIs we are interested in are discourse independent units, how could it be otherwise? More remarkable is perhaps that indefinite subject interpretation (paraphrasable by *man* for sets including the speaker or addressee(s) respectively, or by 'to whom it may concern' for addressees only) occurs more often than definite interpretation (paraphrasable by first and second person pronouns). The most remarkable fact, however, is that subject identification always involves *either* the addressee(s) *or* the speaker, in no case both, and in this a very clear correlation to the illocutionary use of the respective RIs shows up.

Subjects of directive RIs are exclusively identified with addressees (no matter whether addressed directly, see the second person paraphrases, or indirectly, see the *man*-paraphrase); consequently, first person plural adhortative interpretations are impossible (49a). Likewise, if the directives contain overt nominative expressions, they always quantify over the set of addressees (49b). By contrast, subjects in optative/expressive RIs exclusively refer to the speaker (again directly, compare the first person paraphrases, or indirectly, compare the *man*-paraphrase), but never to the addressee(s) as such (49c).²⁶

²⁶ The reference of *man* employed in the paraphrases varies accordingly: Regarding directive RIs, its reference includes addressees only, in the case of optative/expressive RIs speakers only. Third person interpretation—which *man* allows in principle, cf. example i below (thanks to Ewald Lang for the type of examples)—is always impossible with RIs. iia, unlike ia, induces hearer-orientedness, while iib, unlike ib, evokes speaker-orientedness with respect to subject identification.

- (i) a. Man soll im Gesundheitsministerium etwas gegen die Seuche tun.
 'People in the Department of Health should do something against the epidemic.'
- b. Was soll man im Gesundheitsministerium gegen die Seuche tun?
 'What should people in the Department of Health do against the epidemic?'

- (49) a. Aufstehen!
 up-get
 (possible interpretations: $\sqrt{2}$ sg./pl. steh/steht auf 'get up!';
 $\sqrt{1}$ man stehe auf 'may one get up!'; *1pl. stehen wir auf 'let's
 get up!')
- b. Keiner/Linguisten aufstehen!
 nobody/linguists up-get
 (possible interpretations:
 $\sqrt{1}$ keiner von euch/Linguisten unter euch aufstehen;
 'None of you/linguists among you get up!'
 *keiner von ihnen/Linguisten unter ihnen aufstehen
 'None of them/linguists among them get up!')
- c. Noch einmal Venedig sehen.
 once again Venice see
 (possible interpretations:
 $\sqrt{1}$ wenn man/ich/wir noch einmal Venedig sehen könnte(n);
 'If one/I/we could once again see Venice'
 *wenn du/ihr noch einmal Venedig sehen könnte(s)t;
 'If you [sg,pl] could once again see Venice')

Now what about *wh*-RIs? Again, we find them to behave like optative/expressive RIs in that their covert subject is always directly or indirectly identified with the speaker. All the examples given so far confirm this; an additional piece of evidence that I find particularly telling is provided by 50.

- (50) a. Wohin mich/dich/sich wenden?
 where-to REFL.1sg/2sg/3sg turn
- b. Wohin uns wenden?
 REFL.1pl
- c. *Wohin euch wenden?
 REFL.2pl

Note that despite the formal difference with respect to first, second, and third person reflexive pronouns, which usually lead to radically different interpretations, the interpretations of 50a are all speaker-oriented. Even *dich* never allows an interpretation in which it relates to the addressee; we always choose the interpretation in which the silent

- (ii) a. Im Gesundheitsministerium etwas gegen die Seuche tun.
 b. Was im Gesundheitsministerium gegen die Seuche tun?

antecedent subject *du* corresponds to *man* including speaker reference (as in: *in so einer Situation hast du einfach keine Lust mehr* 'in such a situation you've just had it'). 50b clearly conforms to the picture. The only overtly bad case, 50c, on the other hand, reflects a subject antecedent that is exclusively addressee-oriented. This illustrates nicely the restriction of *wh*-RI subjects to identification with the speaker.²⁷

Naturally, the question arises how these correlations between subject interpretation and illocutionary subtype of RIs come about. Why are subjects in directive RIs exclusively identified with addressees, and why do optative/expressive RIs and *wh*-RIs pattern together in allowing only for identification of the subject with the speaker? We return to this question below in section 3.3.3.

3.3. Illocutionary Restrictions on Wh-RIs.

3.3.1. Illocutionary Uses of Wh-RIs vs. Finite Wh-interrogatives.

Wh-RIs, clearly, are used for performing *wh*-questions of various sorts. But as repeatedly alluded to, they cannot be used in every situation in which a finite *wh*-question can be used, even if the subject restriction to speaker-oriented propositions is obeyed. In particular, *wh*-RIs cannot be used in information-seeking situations where the answer (and the relevant knowledge for giving it) is expected from the hearer, which is the standard situation in which finite *wh*-questions are used. This is illustrated in 51–52: 51 is a typical information-seeking situation; consequently, only the finite *wh*-question is acceptable, but not the corresponding *wh*-RI. 52 shows that elements that testify to the question's being hearer-directed are likewise excluded in *wh*-RIs.

(51) [Travel agency: Customer A to agent B:]

- a. Es geht um die neuen Flugtarife. An wen hier soll man sich wenden?
 'I am interested in the new flight rates. Who around here should one contact?'

²⁷ By contrast, *warum-/wozu*-RIs do admit identification of the subject with the hearer, see i below, which seems to show again that *warum-/wozu*-RIs are a special subtype.

- (i) Warum/Wozu euch aufregen, Leute?
 'Why get excited, you all?'
 (default interpretation: Warum sollt ihr euch aufregen? 'Why should you get excited?'
 = proposal: Ihr sollt euch nicht aufregen. 'You shouldn't get excited.')

- b. # An wen hier sich wenden?
'Who around here contact?'

- (52) a. Wen soll man *Ihrer Meinung nach* fragen?
'Who should one ask in your opinion?'
?*Wen *Ihrer Meinung nach* fragen?
b. Wen *bitte* kann/soll man fragen?
'Who please can/should one ask?'
?*Wen *bitte* fragen?
c. Wen soll man fragen, *glaubst du*?
'Who should one ask, do you think?'
?*Wen fragen, *glaubst du*?

This shows that *wh*-RIs do not primarily address the hearer but are self-addressed, that is speaker-oriented. This goes along with a distinctive difference with respect to the nature of the expected answer: When asking finite *wh*-questions speakers usually expect that there are clear-cut, positive answers and that, in the standard case, the hearer will supply them. Asking infinitival *wh*-questions conveys a different impression: In asking them, people seem to be unsure whether the question has a clear-cut, positive answer at all.²⁸ Thus, with a *wh*-RI like 53 the question asked is not to be paraphrased as 53a, but rather as 53b, which leaves as a real possibility that there is no place at all to hide the money. It is in keeping with this characteristic that *wh*-RIs practically never appear with alternative answer tags (cf. 54), by which the existence of a positive answer is presupposed.

- (53) Wo das Geld verstecken?
'Where hide the money?'
a. ≠ 'Is it place a_1 , and/or a_2, \dots, a_n where one could hide the money?'
b. = 'Is there a place where one could hide the money (and if so, which one to choose)?'
(54) Wo das Geld verstecken, #im Keller oder in der Sauna?
'Where hide the money, in the cellar or in the sauna?'

So the central use of *wh*-RIs seems to be raising a problem for which solutions are thought hard to find—hence there is no use in turning to others—rather than confidently seeking information solving it.

²⁸ This is also observed in passing by Lasser (1997:35–36).

In other words, *wh*-RIs are “uncertainty” questions, with the uncertainty implying a deliberative attitude toward the question raised, and thus inducing self-directedness. This is what makes *wh*-RIs come close to deliberative questions on the one hand, which is the prototypical use for *wh*-V-final interrogatives like 55, and rhetorical *wh*-questions in finite form like 56 on the other. But *wh*-RIs still remain different from both. With questions like 55 they share the deliberative attitude in line with speaker orientation, but *wh*-RIs convey an uncertainty about possible answers we do not find in cases like 55. Rhetorical questions, on the other hand, certainly do not seek answers from addressees either, and in typical cases like 56 may imply that there are none. But this is different from expressing uncertainty about whether or not there is an answer, and it need not be connected to a deliberative attitude.

- (55) Deliberative *wh*-questions (vs. uncertainty *wh*-questions):

Was man ihm wohl schenken kann?
what one him MODAL PART. give-for-a-present can
= 'What could we give him for a present, I wonder?'
(vs. Was ihm schenken?)
'Is there anything suitable to give him for a present?'

- (56) Rhetorical *wh*-questions (vs. uncertainty *wh*-questions):

Was [schon] kann man ihm schenken?
what MODAL PART.[rhet] can one him give-for-a-present
= 'Nothing is suitable as a present (he has everything)' or
'It's obvious what to give him for a present (the brand new Händel CD, he is interested in nothing else)'
(vs. Was ihm schenken?)
'Is there anything suitable to give him for a present?'

To sum up, if we take “uncertainty about the existence of clear-cut, true answers” as the interpretive key feature of *wh*-RIs, the undeniable differences between typical illocutionary uses of finite root *wh*-interrogatives (V2 and V-final) and of *wh*-RIs can be plausibly accounted for.²⁹

²⁹ The lack of *yes/no*-RIs in German pointed out in note 7 can also be related to the uncertainty effect of *wh*-RIs (see Reis 2002: appendix A), thus offering further support for its relevance.

3.3.2. Comparing Wh-RIs with "Instruction-seeking" Questions.

A different approach to capturing the 'spirit' of *wh*-RIs has been suggested by Manfred Krifka and Ede Zimmermann, via comments (p. c.) that were independently supplied, but can be linked in the following proposal: Why not compare *wh*-RIs with "instruction-seeking" questions such as 57?

- (57) a. Was soll ich jetzt tun? — Bieg nach rechts ab.
 'What should I do now?' — 'Turn right.'
 b. Wo soll ich parken? — Park gleich hier.
 'Where should I park the car?' — 'Park it right here.'
 c. Wie soll ich die Haare färben? — Färb sie knallrot, das steht dir.
 'How should I dye my hair?' — 'Dye it flaming-red, that suits you.'
 d. Wann soll ich die H. färben? — Färb sie nächstes Wochenende.
 'When should I dye my hair?' — 'Do it next weekend.'

As indicated by their name, these questions characteristically ask for instructions, directions, and advice. This implies that the set of possible answers to these questions are not sets of assertable propositions but of different courses of actions the person asking may be instructed or advised to follow. As a consequence, the actual (nonelliptic) answers to instruction-seeking questions canonically appear in imperative form, as illustrated in 57a–d.

There are indeed suggestive parallels between these questions and *wh*-RIs. First and foremost, as pointed out by Manfred Krifka (p. c.), instruction-seeking questions are incompatible with *warum/why* (58), thus duplicating the split we observed with *wh*-RIs.

- (58) Warum soll ich die H. färben? — *Färb sie, weil du besser aussiehst.
 'Why should I dye my hair?' — 'Dye it because you look better.'

Second, the predicates appearing in *wh*-RIs are those typical for courses of action one can be advised/instructed to take. On the one hand, *wh*-RIs must not contain predicates that do not "denote an event that can be influenced by the subject (i.e., the speaker)" (Ewald Lang, p. c.), see 59. On the other hand, *wh*-RIs may contain predicates

denoting courses of action one can be instructed/advised but not commanded/ordered to take; compare examples in 60.

- (59) a. *Wem ähneln?
 to-whom be-similar
 b. *Wem unterlegen sein?
 whom inferior-to be
- (60) a. Ich rate dir/#ich befehle dir,
 'I advise you/order you
 eine Bleibe zu finden/finde eine Bleibe.
 to find a place to stay/find a place to stay.'
 b. Wo eine Bleibe finden?
 'Where find a place to stay?'

Third, bare RIs are typically used for giving instructions 'to whom it may concern' (the kind of texts they usually occur in being cookbooks, instruction manuals, traffic signs, etc.). Hence, it appears natural that their *+wh* counterparts should be instruction-seeking questions.

In sum, this hypothesis has much to recommend itself. But note that it is not sufficient to explain the specific illocutionary question characteristics of *wh*-RIs worked out in 3.3.1: finite instruction-seeking questions are neither speaker-directed, nor do they convey the uncertainty that is typical for *wh*-RIs. So the comparison, helpful as it is as such, does *not* get us around specifying—and deriving!—something additional with respect to the interpretation of *wh*-RIs that standard finite *wh*-questions in whatever standard use just do not have—the uncertainty effect, invariably leading to speaker-orientation.

3.3.3. On Explaining the Restrictions on Subject and Illocutionary Interpretation of Wh-RIs: Facts and Speculations.

Let us now turn to the interpretive restrictions on *wh*-RIs that still remain to be accounted for.

In section 3.2 we found a remarkable restriction concerning subject interpretation with respect to illocutionary subtype of RIs: the subject of directive RIs must be directly or indirectly identified with the addressee(s), the subject of optative/expressive RIs and *wh*-RIs with the speaker. Since we found in section 3.3.1 that questions performed with *wh*-RIs were speaker-oriented, this restriction can now be directly

correlated with a fundamental illocutionary parameter. Directives are in principle hearer-oriented (“appellative,” so to speak), wishes are in principle speaker-oriented (“expressive,” so to speak), question acts are clearly not speaker-oriented in principle, but the subtype performable by *wh*-RIs is. In other words, the generalization in 61 holds.

- (61) Subject interpretation of RIs correlates one-to-one with the speaker/hearer orientation of illocutionary subtypes of RIs:
- a. hearer-oriented illocutionary subtypes \Leftrightarrow subject identification with the hearer (directives)
 - b. speaker-oriented illocutionary subtypes \Leftrightarrow subject identification with the speaker (optatives/expressives, *wh*-RIs)

But how is this generalization to be explained? After all, the directive speech act does not exclude speaker subjects in principle (consider adhortatives: *gehen wir* ‘let’s go’), optatives/expressives do not in principle concern only the speaker’s own future doings and being, but may concern addressee as well as third person subjects (*ach, wenn du/Karl singen könnte(st)* ‘ah, if you/Karl could sing’), and questions, even self-directed ones, may be asked about everybody’s state of affairs viz. courses of action, including again third persons as well as addressees. So even though subject interpretation of RIs is plausibly restricted to participants of the utterance situation, speaker-hearer variation should in principle be possible in all three illocutionary subtypes of RIs. Yet it is tolerated in none.

This is the one interpretive puzzle posed by *wh*-RIs (and RIs in general). The second one is the uncertainty effect associated with the questions performed by *wh*-RIs described in section 3.3.1. Since the speaker-orientedness of these questions is apparently a byproduct of this effect, there is a link between the two puzzles that suggests trying to solve them together.

To this end, I want to propose a rather speculative hypothesis, which I should like to introduce and back up by a comparison with imperatives.

When dealing with the relation between sentence types and their illocutionary force potential there is an almost overwhelming temptation to analyze things on the model of declaratives. But as is well known, this already goes awry with imperatives: If we analyze them as predications about addressees that are true in some future, we certainly have not captured the essential meaning and function of imperatives—imperatives are not predictions. But what is it that makes them

special? Platzack and Rosengren (1997/1998) have argued—to my mind convincingly—that the salient pragmatic characteristic is that imperatives express a “spoken-to” rather than a “spoken-about” relation to the addressee, and that this can be tied to the salient syntactic characteristic of imperatives, their lack of a prototypical subject (deriving from the lack of FinP, by which MoodP and TP are also cancelled out).³⁰ The authors also make plausible that this basic “spoken-to” relation is responsible for a good part of the special interpretive properties of imperatives.

RIs and imperatives are parallel in two crucial respects: First, as we saw in section 2.2, RIs do not seem to have FinP, hence they also have no prototypical subject. Second, imperatives also obey the generalization in 61, which constitutes one of the RI-puzzles we want to solve: They are invariably used for hearer-directed acts, and, in turn, the hearer figures invariably as the “subject” of the imperative, that is, it is identified with the actor variable of the predicate.

These core similarities suggest analyzing RIs along the same lines as imperatives. However, in doing so, we have to accommodate two major differences. One is that in imperatives directive use potential and hearer-directedness are grammatically determined, whereas with RIs this is only the case for their *wh*-question use; the directive vs. optative/expressive use is already a matter of interpretive inference. The other difference is bound up with the illocutionary variability of RIs: If hearer-directedness corresponds to a spoken-to relation, speaker-oriented uses (as in optative/expressives and *wh*-RIs) must correspond to a different one, say a “spoken-from” relation. I justify positing such a relation below. Let me first sketch what a solution to the RI-puzzle following from the generalization in 61 could look like along Platzack/Rosengren lines.

Let us assume that the major step in interpreting an RI-utterance (just as any other utterance) is determining/infering the actual speech act performed by it, and let us consider 61 in that light. This generalization states, in effect, that in interpreting RIs, *the communicative center of the speech act performed*—namely the addressee in directives, the speaker in optatives/expressives, as well as in the kind of questions performed by *wh*-RIs—*takes the place of the subject, thus entering into a direct relation with the propositional remainder*

³⁰ A rather similar approach is pursued by Zanuttini and Portner (2003).

denoted by the bare infinitival. This is licensed by the lack of a true subject in RIs (following from the lack of FinP); in fact, it is forced by it. But without a true subject, there cannot be an ordinary predication relation either: Just as in imperatives, hearers and speakers in RIs are not (primarily) spoken *about* but spoken *to* (directives), or spoken *from* (optatives/expressives and *wh*-RIs) respectively, with the overall illocutionary interpretation dictating how the propositional remainder has to be integrated—as something the hearer should fulfill, or the speaker wishes, expresses, or asks himself/herself.

If this is correct, the first puzzle is solved. The generalization in 61 follows directly from the fact that RIs lack true subjects (which in turn is entailed by the absence of FinP and the interpretive consequences of this fact).

Returning to the “spoken-from” relation we made crucial use of in this solution, it is an acknowledged fact that we are occasionally forced to differentiate between SAYing (= predication/spoken-about relation) and EXPRESSing (= spoken-from relation), even with respect to finite sentences. Consider 62a, which is taken to be ambiguous between a reading where the belief that *p* is asserted, and a reading where it is just expressed (the “parenthetical” reading). This is sometimes bound up with syntactic differences, as reflected in the difference between 62a and 62b, where 62b has only the expressive reading. Alternatively, the ambiguity may follow from lexical differences, as in 63, where the attitude of regret can be said/asserted only by using a verbal locution as in 63a, whereas with the sentential adverb *leider* in 63b, it can only be expressed (compare Lang 1983, Rosengren 1985). So the existence of the spoken-from relation cannot be disputed.

- (62) a. Ich glaube, er gibt zu viel Geld aus.
 ‘I think he spends too much money.’
 b. Er gibt glaube ich zu viel Geld aus.
 ‘He spends too much money, I think.’

- (63) a. Ich bedaure, dass er zu viel Geld ausgibt.
 ‘I find it regrettable that he spends too much money.’
 b. Er gibt leider zu viel Geld aus.
 ‘Regrettably, he spends too much money.’

Now, confining ourselves to root clauses, it is easy to see that finiteness is a necessary condition for SAYing X. In the absence of finiteness

(absence in terms of sentence grammar, of course), only a nonpredication relation can obtain; consider the minimal pairs in 64, where the nonfinite counterpart always has an EXPRESSive flavor.³¹ What we have learned so far about German RIs (and comparable constructions, cf. 32 above) is certainly in keeping with this distribution.

- (64) a. Du bist ein Linguist. — Du Linguist.
 ‘You are a linguist.’ — ‘You linguist.’
 b. Es ist jetzt Ruhe. — Ruhe.
 ‘It is quiet now.’ — ‘Quiet.’
 c. Das ist schade. — Schade.
 ‘That’s a pity.’ — ‘What a pity.’

If this is correct, it may offer a way of explaining the uncertainty effect of *wh*-RIs. Clearly, the source of this effect is again just the bare infinitival nature of *wh*-RIs—what else could it be in light of the fact that finite *wh*-interrogatives do *not* systematically have this effect? Now, crucially, the understanding of ordinary finite questions also invariably involves uncertainty, more specifically, uncertainty about which of the possible answers are true vs. false. This suggests the following hypothesis: Finite *wh*-interrogatives differ from *wh*-RIs in that the uncertainty about what the true answers are is “said” in finite *wh*-interrogatives, but just “expressed” in *wh*-RIs, and no more than “express”ible by virtue of their being nonfinite. In this way the remaining interpretive puzzle concerning *wh*-RIs would also be solved.

4. Conclusion.

Summing up, I have tried to give a fairly detailed picture of the syntactic and interpretive properties of *wh*-RIs, and have raised the question of how to derive the latter from the former with respect to all pertinent aspects. Obviously, raising the question is different from answering it. With respect to one aspect I gave a preliminary sketch of a derivation, which is still in need of optimization, while with respect to the two remaining aspects we made progress in establishing useful regularities and correlations. Further, we considered (to my mind,

³¹ Here, I interpret 64b (*Ruhe*) as expressive, with the directive flavor coming about indirectly. Whether the directive interpretation could or even should be directly inferred, does not matter at this point.

promising) explanatory speculations, but the speculative parts of the picture are still bigger than the solidly clarified ones.

What should have become obvious nonetheless is the value of approaching the relation between form and interpretation from a derivational perspective. None of the questions about *wh*-RIs treated here that turned out to be especially interesting or descriptively rewarding would have been raised or rigorously pursued had we immediately adopted a "constructional" approach, which makes us expect and thus more readily accept apparent arbitrariness in the relation between form and interpretation. In other words, the amount of fine-grained regularities concerning the form and interpretation of *wh*-RIs uncovered in the previous sections lends additional support to the derivational approach—if not as the better theory of sentence types (which I believe it is), then at least as an extremely useful research strategy.

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