

On the Analysis of Echo Questions*

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Abstract: Echo questions are first and foremost questions, i.e. the speaker tries to get the hearer to close an informational gap. But unlike normal questions they convey the impression that the speaker *reopens* a gap that both speaker and hearer know has already been closed before. This ‘echo’ effect correlates with likewise distinctive formal features: Thus, in (German) echo *wh*-questions, on which I concentrate, the *wh*-phrase is positionally free, always bears the nuclear accent, the final contour is typically a rise, and these formal features may combine with all clause types to yield bona fide echo *wh*-questions.

So far, the standard mode of analyzing echo (*wh*-) questions has been discourse-based, i.e. their particular form and the echo effect are taken to be derivable from their being ‘quotes’ of a previous utterance, with a *wh*-phrase and/or prosodic features added to mark the *re*-questioned aspect. The main aim of this paper is to show that this approach is mistaken, and that an analysis is feasible whereby the pragmatic properties of echo (*wh*) questions are derived from their formal properties, notably their focusing properties, in a non-ad hoc way.

1. Echo *wh*-Questions – The Problem

In this paper I investigate echo questions, my primary examples being echo *wh*-questions in German. A typical example in dialogue context is provided by (1d).¹

- (1) a. A: Nächsten Monat fahre ich nach Afrika, zu einer Konferenz.
‘Next month I’ll go to Africa, to a conference.’
b. B: Klingt aufregend. Wo findet die Konferenz (denn) STATT? (\\)
‘Sounds exciting. Where does the conference take place?’
c. A: Die Konferenz findet in Ouagadougou statt.
‘The conference takes place in Ouagadougou.’

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¹ Capital letters indicate syllables bearing nuclear stress; ‘/’ vs. ‘\’ indicate rising vs. falling intonation. – Frequently used abbreviations throughout the paper are (in the order of appearance): E(*wh*)Q = echo (*wh*-) question, E(*wh*)C = echo (*wh*-) clause, EynQ = echo *yes/no*-question, EynC = echo *yes/no*-clause, EU = echoed utterance, MP = modal particle, EwhP = echo *wh* phrase, +whP = interrogative *wh*-phrase (= *wh*-phrase marking normal *wh*-interrogatives).

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- d. B: Die Konferenz findet WO statt? (/)
'The conference takes place WHERE?'
- e. A: In Ouagadougou – Hauptstadt von Burkina Faso und verdammt heiß.
'In Ouagadougou – capital of Burkina Faso and damn hot.'

What is special about echo *wh*-questions (=EwhQs)? To find out, let us compare (1d) to its normal *wh*-question counterpart (1b): Clearly, both are constituent questions, i.e. the *wh*-word marks a position in the question proposition as unspecified/open, to be specified/closed by the respective natural answers. But beyond that there are salient differences.

The main *pragmatic* difference is the so-called 'echo effect.' Even if the EwhQ (1d) were heard out of context, listeners would infer that the questioned proposition is known to one or both of the participants in the conversation *as having been closed before*. Embedded in a context, this corresponds to the normal case which the name 'echo question' comes from: They take up previous utterances that imply closure of the respective *wh*-position, cf. (1c–d).

This pragmatic difference correlates with clear differences in *form*: Normal *wh*-questions must have a *wh*-phrase in clause-initial position, the nuclear accent is positionally free, and the final contour typically a fall. By contrast, the *wh*-expression in EwhQs is positionally variable, cf. (2), it must bear the nuclear accent, i.e. is minimally focused, and the final contour is typically a rise. Moreover, these distinctive echo features may show up with clause structures of all sorts, cf. the EwhQs in (3), whereas non-EwhQs are restricted to just the three clause structures in (4).

- (2) a. Die Konferenz findet im Herbst WO statt? (/)
'The conference takes place in fall WHERE?'
- b. WO findet die Konferenz im Herbst statt? (/)
'WHERE does the conference take place in fall?'
- c. Die Konferenz findet WO im Herbst statt? (/)
'The conference takes place WHERE in fall?'
- (3) a. Der und WAS tun? (/) (Der und Kartoffeln schälen.)
'Him and do WHAT?' *'Him and peel potatoes!'*
- b. Nieder mit WEM?(/) (Nieder mit Akin!)
'Down with WHOM?' *'Down with Akin!'*
- c. Hol bitte einer WAS? (/) (Hol bitte einer Brot!)
'Somebody please go and get WHAT?' *'Somebody please go and get bread.'*
- d. Hat er auf WEN vertraut? (/) (Hat er auf Glenn Beck vertraut?)
'Did he trust WHOM?' *'Did he trust Glenn Beck?'*
- e. Ob er auf WEN vertraut hat? (/) (Ob er auf Glenn Beck vertraut hat?)
'(You wonder) whether he trusted WHOM?' *'Did he trust Glenn Beck, (I wonder)?'*
- f. Wer wird WO arbeiten? (/) (Wer wird in Kinshasa arbeiten?)
'Who is going to work WHERE?' *'Who is going to work in Kinshasa?'*

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- (4) a. V2 *wh-interrogative* (= normal *wh-question*):
 Wo findet die Konferenz NÄCHstes Jahr statt? (\\)
 ‘Where will the conference take place next year?’
- b. V-final *wh-interrogative*:
- i. ‘*Musing*’ *wh-question*:
 Wo die Konferenz wohl NÄCHstes Jahr stattfinden wird? (\\)
 ‘Where will the conference take place, next year, (I wonder).’
- ii. ‘*Repeat*’ *wh-question*:
 Wo die Konferenz NÄCHstes Jahr stattfinden wird? (\\)
 ‘(You are asking) where the conference will take place next year?’
- c. *Infinitival wh-interrogative* (‘*dubitative*’ *wh-question*):
 Warum jetzt FLÜCHten? (\\)
 ‘Why flee now?’

Further overt differences are illustrated in (5–6): (5) shows that *EwhQs* allow *wh*-expressions in positions that are illicit in normal *wh*-interrogatives, see the ungrammatical *wh*-question counterparts in (5a'–c'). (6) shows that, unlike normal *wh*-interrogatives, *EwhQs* are always main clause-bound: While (6a) in its entirety is an assertion with the *wh*-expression *in situ* having scope only over the complement, (6b) with the echo *wh*-phrase in the same position, in its entirety is an *EwhQ*; in other words, echo *wh*-phrases have always ‘root scope’ (cf. Sobin 2010).

- (5) a. Ihm wird Karl WAS? (/)
 ‘Karl will do to him WHAT?’
- a'. * Wem wird KARL was?
- b. Lucas WER hat das gemalt? (/)
 ‘Lucas WHO painted that?’
- b'. * Lucas wer hat das geMALT?
- c. 1. Ein WAS hat er für Sue gekauft? (/)
 2. Er hat ein WAS für Sue gekauft? (/)
 ‘He bought a WHAT for Sue?’
- c'. * 1. Ein was hat er für SUE gekauft?
 * 2. Wo kaufte er für Sue ein WAS?
- (6) a. Paul weiß, wer wem Geld schuldet.
 ‘Paul knows who owes money to whom.’
- b. Paul weiß, wer WEM Geld schuldet? (/)
 ‘Paul knows who owes money to WHOM?’

A first summary of the differences is given in (7); it will be made more precise as we go on.

- (7) *Distinctive features of echo wh-questions (vs. wh-questions like 4):*
- a. *W.r.t. interpretation*
'Echo effect.' Question proposition known to discourse participants as having been closed before (or presented as such)
 - b. *W.r.t. form:*
 - (i) *Wh-expression positionally variable*
 - (ii) *Obligatory main accent/narrow focus on wh-expression*
 - (iii) *Typically final rise contour*
 - (iv) *Combination of (i-iii) with clause structures of all kinds*
 - (v) *Wh-phrase positions specific to echo wh-questions*
 - (vi) *Main clause boundedness (= 'root scope' of echo wh phrase)*

Later revisions will make (7b) more precise w.r.t. (ii) (§3.1), eliminate (iii) (§3.2.2), and group (i), (iv), (v), (vi) under one descriptive generalization (§3.3.1), to be reinterpreted in §3.3.2.

What I presented so far, is well-known and entirely uncontroversial (see e.g. Altmann 1993, Reis, in press). What then is problematic about *EwhQs*? Mainly three issues stand out:

- (i) What is the clause type status of *EwhQs*, i.e. are they
 - (a) a subtype of *wh*-interrogatives,
 - (b) an interrogative clause type of its own, or
 - (c) just instances of the clause type they formally 'echo?'
- (ii) How does the echo effect come about?
- (iii) How does their question interpretation come about?

My answer to the clause type question (i) will be (ic); as a consequence the answer to (iii) becomes a major problem. The solutions I will propose to (ii) as well as (iii) turn on the special focusing properties of *EwhQs*, – an idea that is by no means new; however, I will show that extant proposals based on them must be substantially modified in order to do the job.

Before taking up these issues, however, some methodological remarks are in order.

2. On Analyzing Echo Questions – Methodological Remarks

EwhQs (as well as echo *yes-no*-questions) typically take up an utterance made in previous discourse, and they often do it in quasi-literal form. This fact has led many echo researchers to take for granted that the echoed utterance (= EU) should be the basis of the grammatical analysis of the echo question (= EQ) itself, i.e. they subscribe to the methodological maxim (8).

- (8) Syntactic EQ analysis is basically EU analysis.

What (8) amounts to is analyzing the structure of EQs more or less as a quote or “frozen [image]” (Sobin 2010) of the EU, with a *wh*-phrase plugged in and/or prosodic features added to mark the *re*-questioned part of the quote. To be sure, some differences between the original and the ‘quote’ have always been acknowledged, notably those that are pragmatically motivated such as the change from 1st to 2nd person and *vice versa*, cf. (9), however without affecting the basically quotational analysis at all.

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- (9) A: Ich verdiene mein Geld in Ouagadougou. – B: Du verdienst dein Geld WO?
'I earn my money in Ouagadougou. – You earn your money WHERE?'

This analysis is by no means a thing of the past, see for example the article by Sobin (2010),² which basically offers just a slightly liberalized quotational analysis of E(*wh*)Qs, couched in minimalist syntactic terms.

What is wrong with such an analysis? From a generative perspective, it is wrong in principle, for a syntactic analysis that is discourse-based as in this case, commits the unforgivable sin of mixing language and communication. But it is also factually inappropriate:

First, the quotational analysis fails vis-à-vis the many cases of pure ‘content echoes,’ cf. the *Ewh*Qs in (10), which all take up some element of *content* inferable from the EU but in different linguistic form; in the extreme case, EU and *Ewh*Q have *no* formal linguistic element in common at all, the necessary content link being exclusively provided by background knowledge; cf. (11). In order to achieve a quasi-quotational analysis in these cases, one would have to construe utterances like (10'a–c) and (11'), which are in line with the original EU as to content, and to which (10a,b,c) and (11) *could* have been a strictly quotational reaction. But these “source sentences” have clearly been derived from the form of the respective *Ewh*Qs, not from the form of the EU! Since they are obviously sufficient to yield a reasonable structural analysis, there is no reason why one should not analyze the structure of *Ewh*Qs generally in this way. Thus, cases like (10–11) yield a powerful argument against the quotational analysis and in favor of an autonomous analysis of clause structures having echo *wh*-interpretation.

- (10) A: Übrigens, gestern hab ich Karl über Stoigber, seinen früheren Chef, reden hören, und weil ich es komisch gefunden habe, dass er ihn jetzt so lobt, ...
'By the way, yesterday I heard Karl speak about Stoiber, his former boss, and since I found it strange that he praises him so much nowadays, ...'
- B: (interrupting A):
- a. Karl hat früher bei WEM gearbeitet? (/)
'Karl worked formerly for WHOM?'
- b. Karl hat sich WANN über diesen Bayernsepp ausgelassen? (/)
'Karl held forth about this Bavarian type WHEN?'
- c. Du findest WAS komisch? (/)
'You find WHAT strange?'
- (11) A: Hat Lisa schon etwas darüber gesagt, wie es ihrem Sohn am MIT gefällt? (/)
'Did Lisa already say something about how her son likes MIT?'
- B: Tom studiert jetzt WO? (/)
'Tom is now studying WHERE?'

² See e.g. Sobin's own summary of his approach (2010:144). For a critique of his approach, see Reis (in prep.).

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- (10') a. A: Karl hat früher bei Stoiber gearbeitet. B: __(10a)___
'Karl formerly worked for Stoiber.'
- b. A: Karl hat sich gestern über diesen Bayernsepp ausgelassen. B: __(10b)___
'Karl held forth about this Bavarian type yesterday.'
- c. A: Ich finde, dass er ihn jetzt so lobt, komisch. B: __(10c)___
'I find it strange that he praises him now.'
- (11) A: Tom studiert jetzt am MIT. B: __(11a)___
'Tom is now studying at MIT.'

A second argument comes from data like (12), which show that even exact quotes of the previous utterance may lead to unacceptable *Ewh*Qs, for obvious reasons: The *wh*-phrase imposes restrictions of its own. *Wh*-expressions are invariably singular, hence the judgments in (12a); they are pronouns, and as such can be neither extraposed nor left-dislocated, hence the judgements in (12b,c).

- (12) a. A: Das haben Zwerge gemacht.
'Dwarfs have done that.'
 B: * Das haben WER gemacht? – √Das hat WER gemacht?
 Intended: *'WHO did that?'*
- b. A: Karl hat behauptet, dass Tim Drogen nimmt.
'Karl has claimed that Tim takes drugs.'
 B: * Karl hat behauptet WAS? – √Karl hat WAS behauptet?
 Intended: *'Karl claimed WHAT?'*
- c. A: Den Gauck, den mögen die Linken nicht.
'This Gauck, the leftists don't like him.'
 B: * WEN, den mögen die Linken nicht? – √WEN mögen die Linken nicht?
 Intended: *'WHO don't the leftists like?'*

Further restrictions, not illustrated here, come from their semantics and their XP status, usually forbidding their substituting for heads. In particular, *Ewh*Qs like (13) are impossible, apparently because the echo *wh*-phrase targets an XP constituent that contains a trace. This suggests that *wh*-phrases are inserted into *Ewh*Q base structures on the same 'deep' level as normal *wh*-phrases in normal *wh*-clauses rather than being plugged in into the superficial structure. Additional data confirming this will be presented in 3.3 (cf. also Reis 1992). In sum, the form of *Ewh*Qs is *not* determined by the utterance it reacts to, hence (8) cannot be correct.

- (13) A: In Rom_i sagt er, dass er damals t_i gewohnt habe.
'In Rome he said that he had lived at that time.'
 B: * In Rom sagt er WAS? (* as an echo question to A's statement)

There is a third argument against (8), i.e. the echo effect. Adherents of (8) consider its existence by and large as a mere byproduct of the discourse position of *Ewh*Qs, and thus automatically taken care of by the discourse-based analysis inspired by (8). But this is an illusion: As already

mentioned, *wh*-questions in echo question form – see (7b) – receive the echo interpretation even out of context, i.e. even then they are invariably understood as *re*-opening a proposition that is known to the discourse participants as having been closed before. In other words, the echo effect of E(*wh*)Qs is not a mere discourse effect but triggered by their particular form; hence, it has an autonomous existence as well. As we will see shortly, this is confirmed by the existence of initiative echo questions, which an analysis based on (8) could not even begin to cope with.

In sum, analyses of E*wh*Qs based on (8) are fundamentally mistaken, and what is called for instead is their autonomous grammatical analysis. This is of course nothing but a vindication of the traditional generative way of handling the relation between grammar and discourse: We'll *start* with the form type of E(*wh*)Q clauses, provisionally defined by the features listed in (7b), *determine* the essential features from this list, *derive* their invariable interpretive features, i.e. the questioning property and the echo effect, from (regular interpretive effects of) their form, and *use* this, together with the particular (propositional and extrapropositional) content, to define the *discourse potential* of specific E(*wh*)Qs, i.e. the class of utterances which this specific E(*wh*)Q can felicitously 'echo question' when appearing in actual discourse.

As a terminological consequence, I will henceforth strictly distinguish between *echo wh-clauses* (E*wh*Cs for short), i.e. clauses having the form provisionally defined by (7b), and the *echo wh-question acts* performed by them.

3. Echo *wh*-Clauses and Echo *wh*-Questions – The Analysis

3.1. The 'Echo Effect' of Echo *wh*-Clauses

First of all, let me make the focus characteristics of E*wh*Cs fully precise: What must be minimally focused in E*wh*Cs is not the *wh*-expression as a whole but its *wh*-part, as becomes visible in polysyllabic *wh*-expressions, of which German has quite a few; cf. (14).

- (14) a. Karl wurde WARum/*waRUM gekündigt?
'Karl was fired WHY?'
- b. Karl hat WIEviel/*wieVIEL verdient?
'Karl earned HOW much?'
- c. Karl möchte WOfür/*woFÜR entschädigt werden?
'Karl wants to get compensation for WHAT?'
- d. Das soll inWIEfern/*inwieFERN ein Argument sein?
'That's supposed to be an argument in WHAT way?'

What is focused here? As is widely assumed,³ *wh*-words contain at least two meaning parts – (i) the interrogative operator meaning, and (ii) a specific meaning (in the case of *wer/wem*: person, in the case of *wohin*: direction, etc.) –, and these can be reasonably associated with the two parts

³ This presupposes that the meaning of interrogative *wh*-words is not identical with that of *wh*-indefinites pure and simple (for critical discussions of this position, see Reich 2003:35–39, Haida 2008). Note that even in theories where the interrogativity of *wh*-words comes about by coupling indefiniteness with a focus feature (see Haida 2008, Truckenbrodt 2011a, 2011b), this focus feature must differ from the normal focus feature F in that it is 'Q-related' (see Truckenbrodt *ibid.*), which amounts to admitting what alone matters here: Interrogative *wh*-words have a specific interrogative meaning part. The same seems to be true for theories that, in terms of features, propose a much more fine-grained picture of interrogative *wh*-words (see in particular Grewendorf 2010).

of every *wh*-word form: the interrogative meaning with its *wh*-part and the specific meaning with its variable part. In other words, what is always minimally focused in *EwhCs* is the interrogative meaning, backgrounding everything else in the clause including the specific content of the *wh*-word. But then the ‘echo effect’ is practically derived: A clause having this focus-background structure projects onto every context of utterance that everything except the interrogative meaning is background information in the relevant discourse, i.e. ‘given’ in the sense of Schwarzschild (1999) – which is exactly the echo effect common to all *EwhCs*.⁴

Capturing the echo effect this way has additional evidence in its favor: *First*, it covers the many cases of non-quotational *EwhQs* illustrated in (10–11) above: As is well-known, what counts as backgrounded, or ‘given’ information pertains to propositional content, not to the form in which it has been transmitted. Hence, if the echo effect is just a normal ‘givenness’ effect of focus structure, we should expect that echoing a previous utterance often, or even primarily, pertains to its content and only concomitantly to its form. The many non-quotational cases bear this out. *Second*, it explains why *EwhQs* convey the echo effect even out of context, and this also paves the way for accommodating initiative *in situ wh*-questions as a form of echo questions. As is again well known, focus-background structure does not simply reflect what is \pm given but presents it as such. Thus, if I enter a room, and the first thing I hear somebody say is (15), I will just assume that having to bring down the garbage can is given from previous discourse, and what is in focus is only who is supposed to do it.

- (15) Den Mülleimer soll TOM runtertragen.
 ‘TOM should bring down the garbage can.’

Hence, if the echo effect is just a focus-background effect, we should expect that there are initiative questions in *EwhC* form that have this effect as well. This prediction is rather clearly borne out by questions in *EwhC* form occurring in special questioning situations such as quizzes, rehearsing situations (e.g. in the classroom), interviews, courtroom interrogations, ‘make sure’ contexts, cf. (16).

- (16) a. Konstantinopel wurde 1453 von WEM eingenommen?
 ‘Constantinople was captured in 1453 by WHOM?’
 b. Und wenn ihr unsicher seid, dann lest ihr WO nach, Kinder?
 ‘And if you are not sure, then you look it up WHERE, kids?’
 c. Und Sie sind jetzt seit WIEvielen Jahren politisch tätig, Mr. McCain?
 ‘And you have been in politics now for HOW many years, Mr. McCain?’
 d. Und Sie nehmen an, dass der Angeklagte anschließend WOhin fuhr?
 ‘And you assume that, afterwards, the accused went WHERE?’
 e. Zur Sicherheit: Den Bericht möchten Sie nochmals WANN haben?
 ‘Once more, just to make sure: The report, you would like to get it WHEN?’

⁴ This account of the echo effect (and its advantageous consequences, see the discussion in the text) applies *mutatis mutandis* to *Eyes/noQs* (= *EynQs*) as well, the *mutanda* being that the entire question proposition is given, thus causing the echo effect. Since focus concerns a given constituent in *EynQs*, it has a contrastive role there, with the rise intonation supplying the ‘questioning’ interpretation for it; cf. Reis (in press) and below, section 3.3.4.

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What these contexts have in common vis-à-vis ‘normal’ *wh*-questions with insecure answer expectations is the fact that the addressees of quiz questions, courtroom interrogations, etc. are obliged to know, or are at least subject to a very strong expectation to know the closed proposition (= the answer). By the same token, the speaker is entitled to strongly expect/take for granted that the closed question proposition is given in the addressee’s mind. But this is just the echo effect projected, thus licensing the use of initiative questions in an *EwhC* form.

To be sure, there are also initiative uses of *EwhCs* in more normal questioning situations:

- (17) A: Ich möchte mit Ihnen über die Themen fürs Mündliche reden.
 ‘I’d like to talk to you about the subjects for the oral.’
 B: Klar, gut. Wird ja auch Zeit. Lassen Sie mal sehen: Sie sind WANN mit dem
 Schriftlichen fertig?
 ‘Sure, ok. It’s about time, too. Let’s see: You’ll be done with the written exams WHEN?’

But on closer inspection, these are no counterexamples, for there is a subtle distinction between using *EwhCs* vs. normal *wh*-interrogatives even in situations like (17): Using *EwhCs* has a ‘connecting’ effect to previous discourse on the same topic, and often has a ring of politeness to it that normal *wh*-questions lack. We can relate these effects to the echo effect in the following way: Just as asking *EwhC*-questions in quiz situations, interrogations, etc. presupposes that someone is under the obligation to know the answer, i.e. that the closed question proposition is ‘given,’ so does asking them in situations like (17), the only difference being that it is the speaker that is under the obligation, not the hearer.⁵ If so, the connecting effect automatically follows – S must know the closed proposition from somewhere –, and so does the politeness effect: Asking a normal information question always puts the speaker into a weaker position than the hearer, but asking it in a form that conveys the impression that the speaker should already know the answer, makes the speaker’s position appear even weaker (having to ask again indicates some defect on his part) – and this is a prime source of politeness effects (see Goody 1978).

In sum, deriving the echo effect from the regular effect of the distinctive focus pattern of *E(wh)Qs*, seems to be correct.

A potentially serious objection to this result is raised by questions in *EwhQ* form like (18), cited in Ginzburg & Sag (2000:280–281) as examples of normal information-seeking *in situ wh*-questions (so-called ‘non-reprise’ vs. ‘reprise’ = echo uses of *wh-in situ*), where the answer, according to them, provides entirely new information.

- (18) a. A: Well, anyway, I’m leaving. – B: OK, so you’ll be leaving WHEN exactly?
 b. A: I am going to buy a house. – B: And you are going to pay for it with WHAT?

However, as has been convincingly argued by Poschmann (2009), these *in situ wh*-questions are unlike normal *wh*-initial questions in that they can never be asked out of the blue but must con-

⁵ In fact, with respect to the cases cited in (16), one could also argue that it is the speaker who already knows the answer (but wants to hear it again from the addressee); cf. the remarks on quiz questions in Fiengo (2007). Since this is by and large the knowledge distribution between speaker and hearer in reactive *E(wh)Cs* when motivated by incredulity, the context conditions of these initiative *EwhCs* can be identified with the echo effect as well.

nect to what is given in previous discourse – the more the better, cf. (19); the so-called ‘context presupposition’ by which Poschmann accounts for this, is cited in (20).

- (19) A: Magda fährt nach Paris.
 ‘Magda is going to Paris.’
 B: a. ^{##} Sie besucht WEN?
 ‘She’ll visit WHOM?’
 b. [#] Und sie besucht WEN?
 ‘And she’ll visit WHOM?’
 c. Und da besucht sie WEN?
 ‘And there she’ll visit WHOM?’
 d. Und sie besucht diesmal WEN?
 ‘And this time she’ll visit WHOM?’
 (Poschmann 2009:196)

- (20) *‘Deaccent’ Presupposition:*
 “*In situ wh*-questions (in German and English) presuppose that the entire utterance is given in context.”⁶ (Poschmann 2009:200; translation mine)

To be sure, Poschmann herself still considers cases like (18–19) as fundamentally different from *Ewh*Qs. But since (20) is so close to the interpretation of the ‘echo effect’ given above, it seems to me that the opposite conclusion is warranted: Even initiative cases like (18–19) display a variant of the echo effect. This is not to deny the differences in strength of this effect to the reactive and other initiative uses of *Ewh*Cs. But since they seem systematically related to the different context conditions in question, this is no argument against this position.⁷

In sum, identifying the echo effect with the regular effect of the distinctive focus pattern of *E(wh)*Qs seems correct – which also confirms that in favoring an autonomous linguistic analysis we are on the right track: The particular echo effect of *Ewh*Qs is not a mere discourse effect but an interpretive effect of their particular form, and thus derivable from it.

3.2. The Clause Type Status of Echo *wh*-Clauses

3.2.1. Are Echo *wh*-Clauses (a Subtype of) *wh*-Interrogatives?

All modern analyses of German *wh*-interrogatives assume, with good reason, an interrogative feature (complex) in clause-initial position in addition to the *wh*-phrase – let’s call it the *Q/+wh* feature as usual –, which does three things: It attracts one (and only one) *wh*-phrase to first position, it defines the scope for the *wh*-phrases in its domain, and it types the clause as syntactically and semantically interrogative. Thus, my claiming that *Ewh*Cs are not *wh*-interrogatives, amounts essentially to claiming that they lack this *Q/+wh* feature.

⁶ Poschmann (*ibid.*) explicates ‘given’ by citing Schwarzschild (1999:151):

“[...] this (GIVEN) does not preclude the possibility that the speaker could insinuate an antecedent, provided the hearer can accommodate it. [...] the rules governing F-marking depend on what the speaker presents as GIVEN.”

⁷ In support of this position note that, according to Obenauer (1994), such a givenness presupposition is also obligatory for the analogous cases in French, where initiative *in situ wh*-questions are much more normal.

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There are very good arguments that this is the case (see also Reis 1991, 1992): The most obvious one is provided by the positional variability of *wh*-phrases in *Ewh*Cs. The generally accepted explanation for normal German *wh*-interrogatives always having a *wh*-phrase in initial position is that the *Q/+wh* feature must be checked by a *wh*-phrase overtly moving to this position. Since *Ewh*Cs need no initial *wh*-phrases, the obvious conclusion is that there is no *Q/+wh* feature to be checked; hence *wh*-phrases can remain *in situ*. A second, no less powerful argument is that *Ewh*Cs obey none of the island constraints on *wh*-scope binding between *wh*-phrases *in situ* and the *Q/+wh* feature that hold in normal *wh*-interrogatives, cf. the Coordinate Structure Constraint constellations in (21a) vs. (21b). Neither do they exhibit intervention effects (Beck 1996, 2006), cf. (22a) vs. (22b).

- (21) a. *Wh*-Interrogatives: * Wo aß KARL Linsen und was / welche Nudeln? (\\)
 b. *Ewh*Cs: Wo aß Karl Linsen und WAS / WELche Nudeln? (/)
 ‘Where did Karl eat lentils and WHAT / WHICH noodles?’
 Karl aß Linsen und WAS / WELche Nudeln? (/)
 ‘Karl ate lentils and WHAT / WHICH noodles?’
- (22) a. *Wh*-Interrogatives: * Welches Buch hat NIEmals wer/welche Frau gelesen? (\\)⁸
 b. *Ewh*Cs: Welches Buch hat niemals WER/WELche Frau gelesen? (/)
 ‘Which book didn’t WHO / WHICH woman read?’

Note that so-called D[iscourse]-linked phrases, which are insensitive to some constraints on normal *wh*-interrogatives, notably to superiority effects, are still sensitive to the constraints exemplified in (21–22), cf. the respective versions with *welch*-phrases. By contrast, echo *wh*-phrases (= *Ewh*Ps) escape *all* scopal restrictions. Thus, the behavior of *Ewh*Ps in *Ewh*Cs cannot be equated with D-linked behavior, so the unselective binding mechanism for D-linked phrases employed in Pesetsky (1987) cannot be employed for *Ewh*Ps either. Rather, the facts suggest that there is no binding relation at all, hence again that there is no *Q/+wh* feature imposing such a relation.

This result implies of course that *Ewh*Ps are not quantifiers, for being quantifiers and having scope are two sides of the same coin. But how do we explain then that *Ewh*Ps always appear to have ‘root scope,’ see (7bvi), i.e. that the question proposition is always the entire clause? The problem disappears once we take note of the remarkably parallel behavior of so-called referential indefinites like (23a) – they escape all scopal restrictions and always have “widest scope” (even over quantifiers with strongest wide scope preference like *each*), cf. (23b) – and their analysis by Fodor & Sag (1982): As they show, referentially used indefinites behave like terms rather than quantifiers, and should be analyzed as such, i.e. as referential noun phrases just like referential definites (proper names, demonstratives, definite descriptions), which are non-scoping elements by nature, therefore outside the network of true quantifier scope relations, and thus interpretable as always having something like ‘widest scope.’

⁸ These examples are inspired by the discussion of parallel English examples in Pesetsky (2001: §5.1).

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- (25) a. Warum ist er *denn* HIER?
'Why is he here?'
- b. A: Magda fährt nach Paris. – B: Und wen *beSUCHT* sie *denn* da?
'Magda is going to Paris. – And whom will she visit there?'
- c. Warum sollte Paul *jemals* gehen?
'Why should Paul ever leave?'
- (25') a. * Er ist *denn* WARum hier?
b. * Und da besucht sie *denn* WEN?
c. * Paul sollte *jemals* WARum gehen?

In short, the overall conclusion is that *Ewh*Cs *must not* have $Q/+wh$, and hence are neither syntactically nor semantically a subtype of *wh*-interrogatives.

3.2.2. If Not a Subtype of *Wh*-Interrogatives, What Then?

This result leaves us with two options: Either *E(wh)*Cs are (i) an interrogative clause type of their own (see e.g. Wunderlich 1986, 1988), or (ii) instances of the clause type they formally 'echo' (see Reis 1991, 1992).

The tempting aspect of option (i) has always been that it would allow us to explain the invariable question use of *E(wh)*Cs in the orthodox way: Being a special interrogative clause type, they can be assigned a special interrogative sentence mood, say Q_E , such that the echo question use of *E(wh)*Cs follows from it.¹¹ The kind of evidence to look for in support of (i) is linguistic phenomena correlated with *Ewh*Qs, but not with normal *wh*-interrogatives as a clause type, thus needing Q_E as a licenser. The only obvious candidate is the typical rising intonation of *E(wh)*Qs: It is typically absent from *wh*-interrogatives, and has often been claimed to induce the echo question meaning all by itself. Moreover, rise contours appear in 'exaggerated' forms that are typically found in *E(wh)*Qs only (cf. Bolinger 1987, Oppenrieder 1988). However, given the results of Bartels (1999) (see also Truckenbrodt 2012) this leads nowhere for *Ewh*Qs:¹² Not only did Bartels show that differences in intonation generally just serve to distinguish *pragmatic* subtypes of questions – including the different rise intonations of *E(wh)*Qs motivated by 'failure to understand' vs. 'incredulity' –, but she showed in particular that a bona fide subtype of *Ewh*Qs, so-called 'reference questions,' systematically have a fall contour, cf. (26).¹³

¹¹ There is reason to be skeptical from the start, for a constitutive element of *semantic wh*-interrogativity is a *wh*-operator-variable relation, implying that the *wh*-phrases have 'interrogative scope' – and as shown in 3.2.1, this property is arguably absent from *Ewh*Qs. For further elaboration of this point see Reis (in prep.).

¹² *Eyn*Qs do have obligatory rise intonation, but given Bartels' results it would be wrong to relate this to a specific sentence mood feature; see the discussion in the text and section 3.3.4. Moreover, *Eyn*Qs show completely parallel behavior with respect to the arguments supporting option (ii) for *Ewh*Qs, thus suggesting the same analysis.

¹³ The examples in (26) are German equivalents of Bartels' English examples (1999: 212). – Another case in point is provided by the intonationally minimal pair in (i), a and b being both *Ewh*Qs. The difference is that the rise corresponds to assuming a set of answer alternatives whereas the fall conveys the speaker assumption that there are no plausible alternatives. Thanks to M. Rochemont (p.c.) for the data and their interpretation.

(i) a. You talked to WHICH girl? (/)
b. You talked to WHICH girl? (\)

- (26) a. A: Fred wollte es nicht aufgeben. – B: Fred wollte WAS nicht aufgeben? (\\)
 ‘Fred didn’t want to abandon it. – Fred didn’t want to abandon WHAT?’ (\\)
 b. A: Haben sie aufgegessen? – B: Hat WER aufgegessen? (\\)
 ‘Did they finish their plates? – Did WHO finish their plates?’ (\\)

Hence, rise contour is not a constitutive formal feature of E(*wh*)Cs in general, thus it cannot be used in setting up an E(*wh*)C clause type of its own.

Negative evidence against option (i) does of course not necessarily support option (ii). But there are data that clearly do. The *first* is the fact illustrated in (3) above: The defining EC features co-occur with *all* clause structures which German grammar allows for. This is only compatible with option (ii). *Second*, elements that are sensitive to sentence mood, such as modal particles (MPs), certain sentence adverbials, polarity items, are *always* licensed by the clause structure with which the E*wh*C features combine, but not by the E*wh*C features themselves, cf. (27). To clinch matters, there is not a single lexical element of this kind behaving in a uniform way vis-à-vis the entire range of E*wh*Cs. Again, all this is only compatible with option (ii).

- (27) a. *Declarative*: A: Karl hat ja / halt / *denn / *jemals Kochbücher geschrieben.
 Karl has MP MP MP ever cookbooks written
 Basic meaning: ‘Karl has written cookbooks.’
 E*wh*C: B: Karl hat ja / halt / *denn / *jemals WAS geschrieben?
 Karl has MP MP MP ever what written
 Basic meaning: ‘Karl has written WHAT?’
 b. *Interrogative*: A: Ob Karl *ja / *halt / denn / jemals Gedichte geschrieben hat?
 if Karl MP MP MP ever poems written has
 Basic meaning: ‘(I wonder) if Karl has written poems?’
 E*wh*C: B: Ob Karl *ja / *halt / denn / jemals WAS geschrieben hat?
 if Karl MP MP MP ever WHAT written has
 Basic meaning: ‘(I wonder) if Karl has written WHAT?’

In sum, E(*wh*)Cs do not form an interrogative clause (sub)type, rather, they are instances of the clause type they formally ‘echo.’ Hence, there is no interrogative sentence mood by which to explain their invariable question interpretation. But if so, what explains it then? This is the question to which I will now turn.

3.3. The ‘Question Interpretation’ of Echo *wh*-Clauses

3.3.1. The Status of Echo *wh*-Phrases

At first glance, the solution seems easy: Every E*wh*C contains a +*wh*-word, and as such it carries an interrogative meaning, which must become part of the interpretation of the entire E*wh*C at some point in their derivation – so what is the problem?

The problem is this: In normal *wh*-interrogatives, the phrase projected by this +*wh*-word (= +*wh*P for short) interacts with the *Q*/+*wh* feature to create the interrogative quantifier-variable relationship that is at the heart of their *wh*-question interpretation. But if there is no *Q*/+*wh* in E*wh*Cs to ‘activate’ the interrogative +*wh*-word meaning as I have argued in 3.2.1, E*wh*Cs cannot get their *wh*-question interpretation in this way. Since this is the only way that is standardly

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accepted, one might be tempted to embrace a kind of *Q/+wh* feature for *EwhCs* after all. But this will not do, as becomes clear once we take stock of the distributional differences between *wh*-phrases in *EwhCs* vs. *wh*-phrases in bona fide *wh*-interrogatives (= *EwhPs* vs. *+whPs*) we found so far, see the summary in (28): *First*, *EwhPs* may appear in all types of clause structures, normal *+whPs* only in bona fide *wh*-interrogative structures, see above (3–4), and again (29a). *Second*, there is a marked distributional difference w.r.t. to \pm interrogative operator positions: Normal *+whPs* occur only in *+wh* operator positions, see (24–24') and again (29b). *Third*, and the other way around, *EwhPs* occur only in non-operator XP positions, but in all of them, see (29c) plus the *EwhPs* occupying VP and NP slots illustrated in (5).¹⁴

- (28) *EwhPs* vs. normal interrogative *wh*-phrases (*+whPs*) – distributional differences:
- | Occurrence in | <i>EwhP</i> | <i>+whP</i> |
|--|-------------|-----------------|
| a. clause types \neq <i>wh</i> -interrogatives (cf. 29a) | + | – |
| b. <i>+wh</i> -operator positions (cf. 29b) | – | + |
| c. all non-operator XP positions (cf. 29c) | + | – ¹⁵ |
-
- (29) a. Peter ist WARum / *waRUM / *warum traurig./? (declarative structure)
 ‘Why is Peter sad?’
 Spielt Paul Womit / *woMIT / *womit./? (polar interrogative structure)
 ‘What does Peter play with?’
 Sei WARum / *waRUM / *warum nett zu ihm./? (imperative structure)
 ‘Be nice to him why?’
- b. Mir ist egal, *WARum / waRUM/warum er nicht kommt./?
 ‘I don’t care why he won’t come.’
- c. Paul glaubt, WORauf / *woRAUF/*worauf könne man stolz sein./?
 ‘Paul believes that one could be proud of what?’
- d. Paul, [dessen Meinung WOzu / *woZU/*wozu] bescheuert ist,/?
 ‘Paul, whose opinion on what is crazy, ...?’

These findings can be summarized as in (30):

- (30) *Distributional generalization w.r.t. EwhPs* vs. *+whPs*:
+whPs show *+wh*-operator behavior throughout, *EwhPs* show *–wh*-behavior throughout (i.e. *EwhPs* may occupy *all* positions licensed for non-interrogative XP expressions of any kind¹⁶ – NP, DP, PP, DegP, AP, VP, IP, CP – and *only* these).

¹⁴ *EwhPs* may even appear as word constituents (cf. Artstein 2002a, Poschmann 2009), which are clearly non-operator positions as well.

¹⁵ *+whPs* occupy apparent non-operator positions in multiple *wh*-interrogatives. But then they are a) bound to the filled *+wh/Q* operator position, b) must still obey the categorial and positional restrictions on *+whPs* (e.g. no in situ *+whP* may appear in a VP or NP slot, or in an XP position like in [*the best album since when*]), etc.

¹⁶ Provided, of course, that an appropriate interrogative *wh*-word is available (e.g. XP-adverbials like *erstaunlicherweise* ‘amazingly,’ *leider* ‘unfortunately’ have no *wh*-counterpart).

The good news deriving from (30) is that we can now delimit the formal features defining *EwhCs* in a much more concise way, for (30) covers four of the six formal *EwhC* characteristics listed in (7b), here repeated as (31):

- (31) *Distinctive features of echo wh-questions w.r.t. form:*
- (i) *Wh-expression positionally variable*
 - (ii) *Obligatory main accent/narrow focus on wh-expression*
 - (iii) *Typically final rise contour*
 - (iv) *Combination of (i-iii) with clause structures of all kinds*
 - (v) *Wh-phrase positions specific to echo wh-questions*
 - (vi) *Main clause boundedness (= ‘root scope’ of echo wh phrase)*

(31i) is a mere reflex of the variable word order of *-whXP* phrases in German, (iv) of the occurrence of *EwhPs* in clause structures of all kinds, for all of them contain *-whXP* positions. Since the positions specific to *EwhPs* are exclusively *-whXP* positions (v) is also covered, and so is (vi), for the ‘root scope’ property follows from being terms, i.e. *-whXPs*, cf. 3.2.1, and (30) shows that *EwhPs* are just that. Since we have already excluded (iii) from the list of defining features in 3.2.2, we can replace (7b)/(31) by a much simpler characterization of *EwhCs*:

- (32) *Defining features of echo wh-clauses (EwhCs):*
- (i) *Obligatory wh-expression in -wh XP position*
 - (ii) *Obligatory main accent/narrow focus on (wh part of the) wh-expression*

The bad news is that (30) confirms beyond doubt that *EwhPs* are no interrogative quantifiers of any sort, which also means that no *Q/+wh* feature of any sort is around to bind them, otherwise the identical distribution of *EwhPs* and *-whXPs* would be completely mysterious. Note that *EwhPs* do not even interact with the *Q/+wh* feature where there is one, namely in *EwhCs* based on *wh*-interrogative structures. Hence there must be a significant difference between *+whPs* and *EwhPs*, which can only be formulated in the following way: *+whPs* are interrogative, *EwhPs* are not. To put it more clearly: While it is beyond doubt that the *wh*-words occurring in *EwhCs* are interrogative *wh*-words, the (minimal) *EwhP* as a whole is non-interrogative. Thus making use of *EwhPs* for explaining the invariable question interpretation of *EwhCs* does pose a considerable, almost dilemmatic, problem.

How can it be solved? So far, three types of solutions are on record: One was suggested, more or less in passing, by den Dikken (2003) (see also den Dikken & Giannakidou 2002), who postulates an interrogative operator feature that has scope just over the *EwhP*, thus locally binding its variable and thereby making it a happy interrogative *wh*-phrase that provides *EwhCs* with their interrogative meaning. The problem with this attempt is that it is completely ad hoc: Neither is it derived from the distinctive features of *EwhQs*, see (32), nor is there an explanation why generating interrogative sentence meanings in this way should be possible in *EwhQs* but nowhere else in the languages in question. A second solution, more or less unique to my early papers, accepts the syntactically non-interrogative status of *EwhPs* at face value, but tries to somehow make their still existing interrogative meaning part accessible such that the question interpretation can be derived from it as an implicature. While this attempt is somewhat less ad hoc (in

particular, the distinctive *EwhC* focus pattern figures in deriving the implicature), I will just concede in hindsight that it was on the wrong track, at least quite inferior to the third type of solution, to which I will now turn: a strictly focus-based approach.

3.3.2. Echo *wh*-Clauses and Their Question Interpretation: The ‘Focus-Based Approach’

We owe the focus-based approach to Ron Artstein, cf. his seminal papers (2002a, 2002b). His starting point was the parallelism between focus semantics à la Rooth (1992) and *wh*-question semantics à la Hamblin (1973), which both turn on sets of propositional alternatives (generated by replacing the focused expression or, respectively, the *wh*-expression by expressions of the same semantic type): The meaning of focus is the set of alternatives to which the one expressed and focused belongs, cf. (33a), the meaning of a *wh*-question is the set of alternatives (alias set of possible answers) to which the correct answer(s) belong(s), cf. (33b). As is obvious from (33), the respective set of alternatives (in brackets) is identical.

- (33) a. Karl baut GERSte an.
‘Karl grows barley.’
{Karl baut Gerste an; Karl baut Weizen an; Karl baut Roggen an; ...}
‘Karl grows barley; Karl grows wheat; Karl grows rye; ...’
- b. Was baut Karl an?
‘What does Karl grow?’
{Karl baut Gerste an; Karl baut Weizen an; Karl baut Roggen an; ...}

The close relation between focus and *wh*-question meaning also shows up in the restrictions on question-answer-congruence: Answers to a *wh*-question are appropriate if and only if the focus value of the answer corresponds to the set of alternatives denoted by the question; cf. (34).

- (34) A: Was baut Karl an? – B: a. Karl baut GERSte an.
‘What does Karl grow?’ *‘Karl grows barley.’*
b. # KARL baut Gerste an.

Artstein (2002b:99–100) uses this close relationship to propose “that both *wh*-[echo] and non-*wh* echo questions [= EynQs] have the same kind of denotation, a set of alternatives *arrived at by focus semantics*.” The italicized part is important: Artstein proposes not only that both types of echo questions denote the same sets of alternatives, but also that these sets are focus-generated in either case,¹⁷ cf. (35).

- (35) A: Karl baut Gerste an.
a. B: Karl baut GERSte an?
b. B: Karl baut WAS an?
Set of alternatives for a as well as b:
{Karl baut Gerste an; Karl baut Weizen an; Karl baut Roggen an; ...}

¹⁷ Poschmann spells this out like this: “Focus marking changes the marked expression into a variable. A lexicalized variant of such variables are *wh*-expressions.” (2009:92; translation mine).

If so, EynQs and EwhQs should accept identical answers, i.e. term answers as well as non-term answers, and this is by and large the case, cf. the last line in (35').¹⁸ If normal question semantics were operative in echo questions, this should be impossible, but focus semantics condones it, because focus constructions have, in addition to their focus value, a normal semantic value as well.

- (35')
- A: Karl baut Gerste an.
 - a. B: Karl baut GERSte an? (/)
 - A: # Ja. / √ Ja, GERSte. / √ Ja, du hast recht gehört.
'Yes.' / 'Yes, barley.' / 'Yes, you heard me right.'
 - b. B: Karl baut WAS an? (/)
 - A: # Ja. / √ GERSte. / √ Du hast recht gehört: GERSte. / √ Du hast recht gehört.
'Yes.' / √ 'Barley.' / 'You heard me right: Barley.' / 'You heard me right.'

Artstein's approach has further advantages: *First*, if the all-important feature of EwhPs is that they are focused, then – *pace* some loose ends – the entire distribution of EwhPs follows, for focused phrases are positionally variable, insensitive to island constraints, always have widest scope, and occur in clause structures of all kinds. In other words, the –*wh* behavior of EwhPs is automatically taken care of. Hence, the list of defining EwhC features can be reduced to (32ii). *Second*, if the question meaning of EwhCs is a purely focus semantic meaning, then it is *per se* independent of the underlying clause type: Every clause type has an information structure, therefore all of them can underlie echo questions, only the type of focus alternatives = answer alternatives is different, cf. e.g. the imperative example (36).

- (36)
- A: Bau GERSte an, Junge!
'Grow barley, boy!'
 - a. B: Bau GERSte an? (/)
 - b. B: Bau WAS an? (/)
- Set of alternatives for a as well as b:*
{bau Gerste an; bau Weizen an; bau Roggen an; ... }

All this is wonderful but the crucial question is still open: How come that focus may generate question meanings for E(*wh*)Cs but nowhere else in German or English? Artstein suggests a pragmatic answer based on the claims cited below, on which he builds a pragmatic derivation, roughly like (37) (cf. Artstein 2002a,b: *passim*).

“Echo questions must be entailed by previous discourse; focus is therefore not needed to mark givenness, and instead it is used to compute the question denotation [...] The reason the *wh*-phrase of an echo question is marked with focus is that this is a strategy to arrive at the meaning of the echo question itself.” (Artstein 2002b: 98, 101)

¹⁸ The parallel is not perfect: The answer *Yes, Barley* to the EwhQ (35b) is impossible, and so is the answer *Barley* to the EynQ in (35a). This asymmetry is unexpected in Artstein's approach but compatible with the modified version I suggest in 3.3.4 where the factual asymmetry of the focus behavior of EynQs and EwhQs is respected.

- (37) *Artstein's derivation of the EwhC question meaning* (schematized):
- (i) Not only the deaccented propositional content is given but also, following Schwarzschild (1999), the *wh*-phrase; thus the entire content of EynQs as well as EwhQs is given.
 - (ii) Despite (i), the minimal focus on the *wh*-expression (EwhQs) or some *-wh*-constituent (EynQs) marks the focused expression as 'not given.' The apparent violation of Grice's 1st maxim of quantity by (ii) is avoided by assuming that focus serves a different communicative purpose, which is/must be identified as
 - (iii) The utterer of E(*wh*)Q wants to question this part of the clause.

From (i–iii) =>

Implicature: Focus induces the question interpretation of E(*wh*)Qs.

Unfortunately, this is not the final answer to our prayers for Artstein's account has two severe drawbacks, both ironically pertaining to focus: (i) Focus is assigned a different role in E(*wh*)Cs than it has elsewhere, cf. the quote above; (ii) the strategy of focus-based question formation it yields seems applicable to questions in general, so its being limited to E(*wh*)Qs (at least in German or English) remains unexplained. Neither (i) nor (ii) sit well with any of the focus or question theories Artstein started out with, so this is at best a halfway focus-based approach.¹⁹

3.3.3. Echo *wh*-Clauses and 'Question Interpretation:' A Revised Focus-Based Approach

So let us try to do better. The key is the observation introduced in section 3.1 that obligatory focusing of the *wh*-expression does not pertain to the entire EwhP but just to its *wh*-part, cf. again the diagnostic polysyllabic examples (14), here repeated as (38).

- (38) a. Karl wurde WARum/*waRUM gekündigt? (/)
'Karl was fired WHY?'
- b. Karl hat WIEviel/*wieVIEL verdient? (/)
'Karl earned HOW much?'
- c. Karl möchte WOfür/*woFÜR entschädigt werden? (/)
'Karl wants to get compensation for WHAT?'
- d. Das soll inWIEfern/*inwieFERN ein Argument sein? (/)
'That's supposed to be an argument in WHAT way?'

So far, this observation has played no role for the analysis of E(*wh*)Qs, not even in focus-based approaches – EwhPs are taken to be in focus as a whole. In Artstein's case this may be due to the near-total absence of polysyllabic *wh*-words in English, although the focusing of phrasal expressions like *how much*, *what kind of tool*, *in which country*, etc. in English EwhCs follows exactly the same pattern (cf. Reis, in prep.). In German-based approaches this may be due to the fact that

¹⁹ An impressive attempt to optimize Artstein's approach has been undertaken by Poschmann (2009). For reasons of space, I shall not discuss it at length but just point out the one aspect that is crucial for the present argumentation: When deriving the question meaning of E(*wh*)Qs, Poschmann (*ibid.*:200–201) appeals to role switching of focus just like Artstein. Thus, her version of the focus-based approach fails at the same point as his.

in situ wh-phrases in German multiple *wh*-questions may exhibit *wh*-part focusing as well, thus suggesting that *wh*-part focusing is not a distinctive feature of German EwhCs to begin with, and thus no basis for their analysis.²⁰ But this suggestion is misleading: While *wh*-expressions in multiple questions are never unaccented, cf. (39), they do not obligatorily bear main accent, cf. (39a'–b'). And no matter whether they bear main or secondary accent, the accent does not necessarily, perhaps not even usually, fall on the *wh*-part, as shown by the bisyllabic *wh*-words in (39).

- (39) a. Findet heraus, WER WANN woHIN/WOhin gefahren ist. –
 a'. Findet heraus, WER WANN woHIN/WOhin im gleichen BUS gefahren ist.
 'Find out who went where when (in the same bus).'
- b. WER hat wieVIEL/?WIEviel verschwiegen? –
 b'. WER hat wieVIEL/?WIEviel verSCHWIEgen?
 'Who concealed how much?'

Thus, *obligatory* accent/focus on the *wh*-part is manifestly a distinctive feature of EwhCs, at least in German. At any rate, it is an obligatory feature, and this should be reflected in the focus interpretation of the respective EwhPs.

Why is this *the* crucial point here? Because the focus alternatives induced by the two focus patterns are different: When the entire *wh*-expression is in focus, the set of focus alternatives is potentially very large, cf. (40a), but when only the *wh*-part is focused, there are just the two alternatives {QUESTION (...); NON-QUESTION (...)} given in (40b). And what is more, the question alternative is in focus, thus *yielding the question meaning of EwhCs as a normal focus effect!*

- (40) a. Wohin/WoHIN geht Tim? (\\)
 'Where does Tim go?'
 Set of focus alternatives:
 {Tim geht nach Paris; Tim geht nach London; Tim geht nach Berlin; Tim geht nach Rom ...}
 'Tim goes to Paris; Tim goes to London; Tim goes to Berlin; Tim goes to Rome ...'
- b. Tim geht WOhin? (/)
 'Tim goes WHERE?'
 Set of focus alternatives:
 {QUESTION (Tim geht ...); NON-QUESTION (Tim geht ...)}
 or: {OPEN x (Tim geht nach x); NOT OPEN x (Tim geht nach x)}

This is just a rough indication of the alternatives in question; how this could be spelled out in formal semantic terms, I have to leave open. But there is at least one bit of additional evidence that my analysis is, in principle, on the right track: Standard German has one and only one interrogative *wh*-word that does not tolerate stress on its *wh*-part, namely: *wieso* (a more colloquial expression for *warum* 'why'). As a consequence, it never occurs in EwhCs, cf. (41a), but only in normal *wh*-interrogatives, there however in initial as well as *in situ* positions, cf. (41b):

²⁰ A case in point is Poschmann (2009), see previous note, who considers *wh*-part focusing as a mere formal marking of *in-situ* status of *wh*-questions (*ibid.*: 17–18).

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- (41) a. Karl wurde WARum/*WIEso gekündigt? (/)
 ‘Karl was fired WHY?’
 b. 1. Wieso/WieSO wurde Karl gekündigt? (\)
 ‘Why was Karl fired?’
 2. [Findet heraus] wer wann wohin wieso versetzt wurde.
 ‘Find out who was transferred when where and why.’

In explaining this singular behavior of *wieso*, what comes in handy is an old insight by T.N. Höhle (p.c.) that there are definite pronoun alternatives to all German *wh*-words but not to *wieso*:

(42)	wer – der	womit – damit	inwiefern – insofern
	who – the	what-with – that-with	in-how-much – inasmuch
	was – das	weshalb – deshalb	was für (ein) – so (ein)
	what – that	why – therefore	what [for] (a) – such (a)
	wohin – dahin	wie – so	wieso – *daso/*soso
	where(to) – there(to)	how – so	how-so – there-so/so-so

This suggests that focus on the *wh*-part does induce just the two alternatives we assumed in (40b), and given (42), we can also formulate them in a simple way, cf. (43), the alternative terms indicating open vs. closed reference of the *wh*-expression in question. What this amounts to in formal semantic terms will, again, have to be left open.

- (43) Tim geht WOhin? (/)
 ‘Tim goes WHERE(to)?’
 Set of focus alternatives:
 {Tim geht wohin; Tim geht dahin}
 ‘Tim goes where(to); Tim goes there(to)’

3.3.4. Is a Strictly Focus-Based Approach to All Echo Clauses Possible?

Let us suppose then that this account for the question interpretation of *EwhCs* is on the right track. If we confine ourselves to *EwhCs*, this vindicates a solely focus-based approach for it does away with both focus stipulations which Artstein’s account of the *EwhQ* interpretation is based on (see 3.3.2): Not only is the *wh*-part focus property that it exploits clearly unique to *EwhQs* (at least in German and English) but, most importantly, focus would have the same Roothian interpretation throughout, including the *wh*-part focus on *EwhPs*. Moreover, the question meaning of *EwhCs* simply falls out as the focused alternative. Since the echo effect also falls out naturally from the *EwhC* specific focus pattern, this amounts to having a *strictly* focus-based approach to *EwhCs* viz. *EwhQs* in all relevant respects.

But this gain over Artstein’s original focus-based approach is paid with a loss in generality: The set of alternatives {QUESTION; NON-QUESTION} induced by *wh*-part focus on *wh*-words in *EwhCs* just cannot arise in *EynCs* where plain *-wh* constituents are focused. But without identity of the sets of focus alternatives induced by *EynCs* and *EwhCs*, a parallel focus-based derivation

of the question interpretation of *EynCs*, initially the biggest attraction of Artstein’s approach, is no longer possible.

On closer inspection, however, this is not bad news at all, for in forcing us to look for the correct approach to *EynC* question interpretation in different directions, it makes us see the importance of a different, wider parallel between *EwhCs* and *EynCs*: It is not focusing by itself that leads to the specific question interpretation of both, *EwhQs* and *EynQs*, but focusing together with the interpretive properties of their respective constitutive formal feature: In *EwhCs* it is the obligatory *wh*-phrase with which focus interacts, in *EynCs* it is the obligatory rising intonation. Artstein paid no attention to this factor at all but as shown in recent comprehensive studies of *EynQs* *alias* ‘declarative questions’ (cf. Gunlogson 2003, Poschmann 2009) and of fall [∨] vs. rise [/] intonation of sentence types in general (Bartels 1999), rising intonation is sufficient, given the other properties of the respective *EynCs* (focusing, clause type), to systematically derive their question interpretation from the meaning of the [/] contour. There are different meaning assignments on record, perhaps the most attractive in this context being Bartels’ proposal that [∨] vs. [/] signals assertion vs. non-assertion of a salient proposition (see also the elaboration in Truckenbrodt 2012): It provides not only the broadest coverage of the distribution of these contours (including their distribution over normal *wh*-questions and \pm referential *EwhQs*, see above 3.2.2) but also a rather plausible account of the question interpretation of *EynCs* as the result of a pragmatic inference process starting from non-assertive marking coupled with addressee orientation.

If so, the divergence of question interpretation accounts for *EwhCs* and *EynCs* allows an important conclusion: The overt formal features found to be obligatory for *EwhCs* and *EynCs* respectively are in no case just constructional decoration but systematically involved in deriving the central interpretive features of both, i.e. their echo effect and their question interpretation. Thus, the fact that in this view question interpretation is due to different mechanisms in *EwhCs* vs. *EynCs*, is no disadvantage vis-à-vis the original focus-based approach but a mere consequence of its greatest advantage: its commitment to compositionality.

4. What Remains to Be Done

Even if the analysis of *E(wh)Qs* presented above is on the right track, there is still a lot to be done before we can be sure of anything. *First*, and closest to home, the facts about *wh*-phrase focusing/accents and its possible pragmatic effects in normal *wh*-interrogatives are largely unknown even for a language as thoroughly researched as German – but we do need them in order to make sure, by way of comparison, what is really special about *wh*-phrase accent/focus in *EwhCs*, and what is not. *Second*, what we also need following Poschmann’s (2009) lead, is a much closer comparison with the formation of normal vs. echo *wh*-questions in strict *wh-in situ* languages, though with a somewhat dilemmatic purpose in mind: On the one hand, these languages may teach us how focus-generation of question meaning works in normal *wh*-questions; on the other hand, unless they also teach us something about how the differences between normal and echo *wh*-cases we observe in German or English can be derived, *wh*-phrase focusing in these languages may not be a suitable model for analyzing our echo *wh*-questions at all. *Third*, the biggest of all litmus tests is still waiting: placing the analysis of echo *wh*-questions presented above into the context of a full-fledged grammar. While this is the only way of testing whether or not it

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is a viable analysis for echo *wh*-questions or at least a better one than others suggested so far, it is too big a task to even begin being tackled here. So let me leave it entirely to future research.

References

- Altmann, Hans. 1993. Satzmodus. In Jacobs, Joachim et al. (eds.), *Syntax. Ein internationales Handbuch zeitgenössischer Forschung*. Vol. 1. Berlin: Mouton de Gruyter. 1006–1029.
- Altmann, Hans (ed.). 1988. *Intonationsforschungen*. Tübingen: Niemeyer.
- Artstein, Ron. 2002a. Parts of Words: Compositional Semantics for Prosodic Constituents. PhD Dissertation, Rutgers University.
- Artstein, Ron. 2002b. A Focus Semantics for Echo Questions. In Bende-Farkas, Ágnes, and Arndt Riestler (eds.), *Workshop on Information Structure in Context*. Stuttgart: IMS, Stuttgart University. 98–107.
- Bartels, Christine. 1999. *The Intonation of English Statements and Questions. A Compositional Interpretation*. New York, London: Garland.
- Beck, Sigrid. 1996. Quantified Structures as Barriers for LF Movement. *Natural Language Semantics* 4: 1–56.
- Beck, Sigrid. 2006. Intervention Effects Follow from Focus Interpretation. *Natural Language Semantics* 14: 1–56.
- Bolinger, Dwight. 1987. Echos Reeched. *American Speech* 3: 261–279.
- den Dikken, Marcel. 2003. On the Morphosyntax of *Wh*-Movement. In Boeckx, Cedric, and Kleantes K. Grohmann (eds.), *Multiple Wh-Fronting*. Amsterdam/Philadelphia: John Benjamins. 77–98.
- den Dikken, Marcel, and Anastasia Giannikidou. 2002. From *Hell* to Polarity: “Agressively Non-D-linked” *Wh*-Phrases as Polarity Items. *Linguistic Inquiry* 33: 31–60.
- Fiengo, Robert. 2007. *Asking Questions. Using Meaningful Structures to Imply Ignorance*. Oxford: Oxford University Press.
- Fodor, Janet D., and Ivan A. Sag. 1982. Referential and Quantificational Indefinites. *Linguistics and Philosophy* 5: 355–398.
- Ginzburg, Jonathan, and Ivan A. Sag. 2000. *Interrogative Investigations: The Form, Meaning, and Use of English Interrogatives*. Stanford, CA: CSLI.
- Goody, Esther N. 1978. Towards a Theory of Questions. In Goody, Esther N. (ed), *Questions and Politeness. Strategies in Social Interaction*. Cambridge: Cambridge University Press. 17–43.
- Grewendorf, Günther. 2010. The Internal Structure of *Wh*-Elements and the Diversity of *Wh*-Movement. Ms. University of Frankfurt.
- Gunlogson, Christine. 2003. *True to Form: Rising and Falling Declaratives as Questions in English*. New York, London: Routledge.
- Haida, Andreas. 2008. The Indefiniteness and Focusing of *Wh*-Words. Dissertation, HU Berlin.
- Hamblin, Charles L. 1973. Questions in Montague English. *Foundations of Language* 10: 41–53.
- König, Ekkehard. 1977. Modalpartikeln in Fragesätzen. In Weydt, Harald (ed.), *Aspekte der Modalpartikeln. Studien zur deutschen Abtönung*. Tübingen: Niemeyer. 115–130.
- Obenauer, Hans-Georg. 1994. Aspects de la syntaxe A-barre: Effets d’intervention et mouvements des quantifieurs. Thèse de Doctorat d’État, Université de Paris VIII.
- Oppenrieder, Wilhelm. 1988. Intonatorische Kennzeichnung von Satzmodi. In Altmann, Hans (ed.), 169–205
- Pesetsky, David. 1987. *Wh*-in-situ: Movement and Unselective Binding. In: Reuland, Eric J., and Alice G.B. ter Meulen (eds.), *The Representation of (In)definiteness*. Cambridge, MA: MIT Press. 98–123.
- Pesetsky, David. 2001. *Phrasal Movement and its Kin*. Cambridge, MA: MIT Press.

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- Poschmann, Claudia. 2009. Echo-Fragen. Eine fokusbasierte Metarepräsentations-Analyse. Dissertation, University of Mainz.
- Reich, Ingo. 2003. *Frage, Antwort und Fokus*. Berlin: Akademie-Verlag.
- Reis, Marga. 1991. Echo-w-Sätze und Echo-w-Fragen. In Reis, Marga, and Inger Rosengren (eds.), *Fragesätze und Fragen. Referate anlässlich der 12. Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft, Saarbrücken 1990*. Tübingen: Niemeyer. 49–76.
- Reis, Marga. 1992. Zur Grammatik und Pragmatik von Echo-w-Fragen. In: Rosengren, Inger (ed.), *Satz und Illokution*. Vol. 1. Tübingen: Niemeyer. 213–261.
- Reis, Marga. In Press. Assertive Frage und Echofrage. To appear in Meibauer, Jörg, Steinbach, Markus, and Hans Altmann (eds.), *Handbuch der Satztypen*. Berlin, New York: Mouton de Gruyter.
- Reis, Marga (in prep.). Echo Questions are WHAT?? A Reply to Sobin 2010. Ms. Univ. of Tübingen.
- Rooth, Mats. 1992. A Theory of Focus Interpretation. *Natural Language Semantics* 1: 75–116.
- Schwarzschild, Roger. 1999. GIVENness, AvoidF, and Other Constraints on the Placement of Accent. *Natural Language Semantics* 7: 141–177.
- Sobin, Nicholas. 2010. Echo Questions and the Minimalist Program. *Linguistic Inquiry* 41: 131–148.
- Truckenbrodt, Hubert. 2011a. Checking vs. Stressing of *Wh*-Words. To appear in: Elordieta, Gorka, and Pilar Barbosa (eds.), *Prosody and Meaning*. Berlin, New York: Mouton de Gruyter.
- Truckenbrodt, Hubert. 2011b. Q-related F. Ms. ZAS Berlin.
- Truckenbrodt, Hubert. 2012. Semantics of Intonation. In: Maienborn, Claudia, Klaus von Heusinger, and Paul Portner (eds.), *Semantics: An International Handbook of Natural Language Meaning*. Vol.3. Berlin, New York: Mouton de Gruyter, 2039–2069.
- Wunderlich, Dieter. 1986. Echofragen. *Studium Linguistik* 20: 44–62.
- Wunderlich, Dieter. 1988. Der Ton macht die Melodie – Zur Phonologie der Intonation des Deutschen. In Altmann, Hans (ed.), 1–40.