DOUBLING TROUBLE:
SOME REMARKS ON WH-CONCORD IN SWISS GERMAN

Henk van Riemsdijk[*]

Abstract: The notion "doubling" is widespread in linguistics. But it is mostly used as a pre-theoretical notion that potentially covers an enormous range of phenomena. If the notion is to be of some use, we must, gradually, work our way towards a definition (or a set of definitions) of "doubling". In order to do so, specific cases that might be subsumed under the term doubling must be studied in detail and analyzed and be made amenable to an account in terms of current theorizing. After a general overview of what might conceivably be called doubling in linguistics, the article zooms in on one specific construction, viz. wh-concord in Swiss German.

Keywords: AGREE, Swiss German, doubling, multiple copy spell-out, sluicing, wh-concord, wh-scope marking

1. Introduction: Unrestricted doubling

The term "doubling" is and has been quite popular in linguistics.[1] Perhaps the most well-known use of the term is in connection with the so-called clitic doubling construction which attained some notoriety in the early 80s, cf. Jaeggli (1982).[2] Take one of his original examples of clitic doubling, the doubling of the direct object in Platense Spanish:

(1)   Lo   vimos   a   Juan
        him saw-we DO-marker Juan
        'We saw Juan'

The clitic *lo* doubles the direct object *Juan*. This is a case of Doubling in terms of phi-features, not one in terms of phonetic or morphological shape. A definition of Doubling that would encompass this case might be the following:

(2)   ……   […αF$_i$…]   …………….[…αF$_i$…]………..
        (F$_i$ some phonological, morphological, syntactic or semantic (set of) features)

This would include co-reference, agreement, and lots of other things that we do not generally refer to by the term "doubling". So, what IS doubling? Consider some examples from the various levels of grammar.

(3)   Doubling across levels of grammar:

  a.   segment: gemination, lengthening
  b.   syllable: Marshallese *kagir* 'belt' → *kagirgir* 'to wear a belt''
               (kagir-gir)[3]
  c.   morpheme: Swiss German inf. marker: *i mues go (ge) brunze* 'I must
               go pee' (Van Riemsdijk 2002)
  d.   word: Finnish *ruoka* 'food', *ruokaruoka* 'proper food', as
               opposed to snacks (Ghomeishi, Jackendoff, Rosen and
               Russell 2004, Kimper 2008)
  e.   phrase: Kannada (Lidz 1999)
               naanu **baagil-annu muchide   giigilannu muchide**
               i-nom door-ACC   close-PST-1SG RED
               anta heeLa-beeDa
               that say-PROH
               'Don't say that I closed the door and did related
               activities.'
  f.   clausal: Udehe (Nikolaeva 2007)
               Ni   maje ni   maje, ana-masi:ti.
               Who strong who strong push-REC-3PL
               'They push each other (trying to see) who is stronger.'

(4)   Other dimensions of variation in doubling:

  a.   Degrees of identity: full – partial
  b.   Degree of adjacency: adjacent – close – distant
  c.   Types of identity: phonetic/phonological – featural
  d.   Component: phonology – morphology – syntax – semantics
         (would we call something like 'Venus, the Morning Star is also
         sometimes called the Evening Star' doubling?)
  e.   Does doubling always have a semantic / pragmatic impact?

If by "doubling" we mean a subset of the above examples and possibilities, how do we define that subset, and on the basis of what generalizations? Put like this, the task seems almost hopeless. Indeed, it is far from clear that "doubling" is a term that belongs to the realm of linguistic theory. Indeed, even if we restrict ourselves to syntax, there are several well-established, basic principle that each has the potential of accounting for a fair number of cases of doubling, in particular Copying (Copy Movement), AGREE, and (partial) ellipsis under identity.

As a final introductory remark, consider the fact that the opposite of doubling appears to exist as well. This set of phenomena is usually referred to as "identity avoidance" (cf. Yip 1998, Van Riemsdijk 2008), and references cited there. Identity avoidance has a long history, witness the fact that there are terms for some phenomena in

---

[3] Unless indicated otherwise, these examples are taken from the Wikipedia entry on Reduplication.

this domain from classical philology such as haplology and *horror aequi* (abhorrence of sameness). For identity avoidance many of the same questions raised above about doubling apply *mutatis mutandis.*

Both doubling and identity avoidance raise fairly obvious questions as to their grounding in cognition. It has been argued, however, that the cognitive basis for doubling is far from evident (cf. Leonardi 2009). On the other hand, the cognitive basis for Identity Avoidance appears to be fairly strong in view of the wide-spread role that economy principles play in a variety of cognitive domains. Matching mechanisms in linguistics may well be likened to matching phenomena in cognitive processes or even genetics (cf. Van Riemsdijk 2008) for some discussion. Finally, we must face the unavoidable question as to how doubling and identity avoidance can coexist in grammar.

2. The case of Swiss German wh-doubling

2.1 Main properties of wh-doubling

The main description of wh-doubling can be found in Glaser and Frey (2006) and Frey (2008).[4]

A. In a specific type of wh-questions, a copy of the wh-word shows up at the end of the clause (example from Glaser and Frey 2006, examples (19)-(20)):

(5)   a.   Was mach-ä-mer moorä?   UR
                  what do-PL=we   tomorrow
                  'What do we do tomorrow?'
        b.   Was mach-ä-mer moorä   was?
                  what do-PL=we   tomorrow what
                  'What do we do tomorrow?'

B. While *was* is the most frequent wh-word in this construction, other wh-words show the same pattern:

---

[4] Frey's facts are from the Uri dialect, spoken in a central, mountainous part of Switzerland. The facts as presented here deviate in some points from Frey's. They are based on my own intuitions from the Zurich area and have been confirmed by Tom Leu (Uri, specifically Altdorf) and Martin Salzmann (Zurich). Where I cite Frey's data, the (intuitive, semi-phonetic) spelling reflects Frey's rendering of the Uri pronunciation, while the spelling of the data contributed by myself are based on the Zurich dialect. Discrepancies between the two are irrelevant to the analytical points made in this article. In the examples UR and ZH signal their dialectal signature. It should be noted that doubled wh-questions belong to a rather special style that is close to caretaker language: they are typically, though not exclusively, used when speaking to children, speaking a bit childishly, etc. The judgments given presuppose this style. See below for more discussion.

(6)   a.   [Wer isch daa g-si] wer?   UR
who is.3SG there PTCP-be who
‘Who was there?’

b.   [Wiä wotsch   das mach-ä] wiä?
how want.2SG it do-INF   how
‘How do you want to do it?’

c.   [Wiä wotsch   das (*wiä) machä]?
how want.2SG it   how do
‘How do you want to do it?’

Observe that (6c) shows that the copy must be at the end of the clause and cannot be *in situ*.

     C. Questions exhibiting wh-doubling are true information questions. That is, they are neither echo questions (cf. (7a, a’)), nor alternative answer questions (cf. (7b)), nor rhetorical questions (cf. (7c)), nor negative wh-questions (cf. (7d)). The examples are again from Glaser and Frey (2006, example (21)) .

(7)   a.   WO cha-sch dü mit-gaa (*wo)?   UR
where can-2SG you with-go   where
‘Where can you go?’

a’   Dü cha-sch WO mit-gaa (*wo)?

b.   Was mach-t de der da (*was), Feeriä   oder Schaffä?
what do-3SG MP he here what, holidays or   business
‘What is he here for, holidays or business?’

c.   Was wiusch   dü nu   verliärä (*was)? (“Nyd”)
what want.2SG you MP lose   what (“Nothing”)
‘What do you want to lose?’ (“Nothing“)

d.   Was isch   de nig-gangä (*was)?
what is.3SG MP NEG-gone   what
‘What didn’t work?’

     The question then is, what kinds of questions these are. Indeed, wh-doubling questions are not always felicitous. In fact, they belong to a quite special style that we may call school-questions. A schoolteacher will often ask his pupils wh-questions. These are in one sense rhetorical, as, most of the time, the teacher knows the answer. Not always though, if you think of questions like “what did you do during your vacation?”. Hence these are, in the relevant sense, true information questions. But often the teacher is confronted with shy pupils that prefer simply not to answer. In order to counteract this tendency, the teacher will use ways of goading the pupil into answering. This is the main role of wh-doubling.[5]

---

[5] Clearly, as Tom Leu (p.c.) points out, there are extended uses of this style, for example in internal or external self-monologues by children. As the exact delimitation of this style is not directly relevant to the linguisti analysis of the construction, I will not pursue it any further.

Of course, the school question style is often also used outside school: parents to their children, for example, will also use it. Similarly, condescending speech to non-native speakers of the language may also evidence this style.

While I agree with the judgments presented by Glaser and Frey, it seems likely to me that the contrasts are not really contrasts of the syntax or the semantics proper, but rather stem from the fact that the interpretations that they reject in (7a-d) are pragmatically incompatible with school-question style.

D. Glaser and Frey argue that wh-doubling is only possible with monosyllabic wh-words and they illustrate this claim with the following examples, cf. Glaser and Frey (2006, example (22)):

(8) a. Was lis-isch dü da was?   UR
         what read-2SG you here what
         'What do you read here?'
     b. Wenn hesch   dü dyys Referat wenn?
         when have.2SG you your talk   when
         'When will you give your talk?'
     c. Uf wenn het d' Anna Bsuäch (*uf wenn)?
         on when has the-Anna visit   on when
         'When does Anna receive visitors?'
     d. I wele-m   Zug gaa-sch dü hinächt üüsä? (*i welem?)/(*i welem Zug)
         in which-DAT train go-2SG you tonight out   in which / in which train
         'Which train do you take tonight?'

In the Zurich dialect these tend to be not so sharply degraded. For me (8c) is OK, and the first variant of (8d) is OK too (see also Frey 2008, (22)). Some more examples of polysyllabic wh-doubling are given in (9):

(9) a. Vo wem   häsch dän das g-höör-t vo wem?   ZH
         from who.DAT have.2SG then that PRTC-hear from who.DAT
         'Who did you hear that from?'
     b. ?Wele-s   het-sch   dän du am liebschte wele-s?
         which-N.SG have.COND-2SG then most   which-N.SG
         'Which one would you like best?'

E. Frey (2008) claims that wh-doubling is limited to root clauses, but she does not present any data to support this contention. And indeed, the typical school-question style would lead one to expect this, as school-style prefers direct questions. Within limits, however, embedded doubling is possible.

(10) I fröög mi   scho was er mit-bbraacht hät waas   ZH
      I ask   myself PRT what he with-brought has what
      'I do wonder what he has brought along.'

In fact even long movement and partial movement are possible[6]:

(11)   a.   Was mäin-sch **das** er mer   mit-bbraacht hät waas?
            what think-2SG that he me.DAT with-brought has what
            waas   (long movement)   ZH
            what
            'What do you think he brought along for me?'
       b.   Was mäinsch **was** er mer mitbbraacht hät waas?   (partial movement)

Another indication that points in the same directions is that the following two examples (with or without "embedded" V2) are about equally acceptable (cf. Van Riemsdijk 2001), where V2 suggests root clause status while VFinal suggests a true embedded clause.

(12)   a.   Wäisch   was   händ   mer   die   Tuble gsäit waas?   ZH
            know.2SG what have.3PL me.DAT those idiots told what
            'Do you know what those idiots told me?'
       b.   Wäisch was mer die Tuble gsäit händ waas?

     F. Prosodically, there is no intonation break between the final verb cluster and the doubled wh-word, and primary stress is on the finite verb in second position, regardless of whether it is a main verb or an auxiliary. The example is from Glaser and Frey (2006, (24)):

(13)   Wer ISCH   daa   gsi (*#) wer?   ZH
       who be.3SG there been   who
       'Who was there?'

This is even true in complex sentences like those in (11): main stress falls on *mäinsch*, and there is no intonation break before *waas*.[7]
     G. Note finally that the doubled wh-element is not strictly the last element of the clause.[8] It is last in the sense that, like extraposed material, it follows the final verb cluster, but when other extraposed material is present, such as an adverbial PP, the doubled wh-element tends to be closer to the verb cluster. In the following sentence, the variant with *waas* before the extraposed adverbial is preferred:

(14)   Was mäin-sch das si   gsäit hät (waas) bevor si ggange-n-isch (??waas)? ZH
       what think-2SG that she said has (what) before she gone-EP-be.3SG (what)
       'What do you think she said before she left?'

---

[6] Preferences seem to fluctuate a bit among speakers. The tally with the two native consulting linguists and myself ended up being 2:1 in favor of (11a).
[7] In (10), however, the discourse particle *scho* overrides this principle and takes main stress, leaving the tensed verb *fröög* with secondary stress.
[8] This is a slight adjustment to point (i) of the Glaser and Frey properties listed under (i)-(vi).

2.2 Frey's analysis

Frey (2008) proposes to treat the doubled wh-word (or phrase) as a tag. In doing so, she appeals to the rule of Tag Question Formation. It is not clear, however, that there is such a rule, and Frey does not attempt to formulate one. Instead, the term 'tag' is a descriptive term that groups together a diverse set of clause final particles and clause fragments that are frequently found in questions (*no?*, *innit?*, *aren't you?*, etc.).

Rather than pursuing Frey's idea, I will examine three possible ways of analyzing the wh-doubling construction in terms of current analytical practice and the options that the generative framework offers, viz. sluicing, copy-movement, and concord.

2.3 A sluicing analysis

Sentence fragments are often found following a (simple or complex) clause. Take fragment specifications of variables as in (15a) or sluicing, as in (15b). One prominent proposal to deal with sentence fragments is to derive them from full clauses followed by ellipsis, cf. Merchant (2004, 2006b, 2006a). For a critique of this line of approach, see Stainton (2006).

(15)   a.   A: Some people left.   --   B: Yes, John and Mary ~~left~~.
        b.   Some people left, but I don't know who ~~left~~.

Along similar lines, we might interpret the right hand side double of the intraclausal wh-element as a sentence fragment and analyze the construction in terms of ellipsis, more specifically in terms of sluicing, as the sentence fragment is also a wh-question-word.

The Zurich German version of (5a) might thus be derived as in (16):

(16)   Was machemer moorn waas   ~~machemer moorn~~?   ZH
        what do-we   tomorrow what ~~do we   tomorrow~~
        'What are we going to do tomorrow?'

Such an analysis faces serious problems, however:

A. If (16) were a case of sluicing, we would expect stress on the wh-word and an intonation break before it. Instead, as noted in 2.1.F there is no intonation break in (16) nor is there any stress on waas.

B. Note furthermore that while a normal wh-question with the wh-word *was* 'what' uses the short form *was* [wAs], the doubled wh-element is generally pronounced with the long vowel: *waas* [wAAs]:

(17)   Was machemer moorn waas / *was   ZH

This much is unsurprising, as it is also true for sluicing:

(18) Moorn   machemer öppis   schööns, aber ich wäiss nonig waas / *was ZH
      tomorrow do-we   something nice   but I   know not-yet what
      'Tomorrow we are going to do something nice, but I do not know yet what.'

However, it turns out that for *waas* (though not or only marginally for the other wh-words[9]) there is also a morpho-lexical alternate for *waas* that shows up uniquely in the wh-doubling construction. The alternate form consists of the wh-element *waas* followed by a diminutive suffix *-eli*. The resulting form *waaseli* can occur as such but is often followed by a second copy of *waas*, making the full form *waaseliwaas*. In other words, (16) has the alternants shown in (19):

(19) Was machemer moorn waas / waaseli / waaseliwaas?   ZH

      In sluicing these alternants are impossible:

(20) Moorn machemer öppis schööns, aber ich wäiss nonig waas / *waaseli /
      *waaseliwaas

Hence, the existence of such morpholexical alternants in wh-doubling is highly problematic for any analysis based on sluicing in terms of full clause repetition followed by ellipsis. Indeed, the impossibility of the "long" alternants is not surprising once we observe that the long form is limited to the clause-final position and can never occur in Spec.CP as shown in (19'):

(19') *Waaseli / *waaseliwaas machemer moorn (waas)

The ungrammaticality of (19') immediately accounts for the impossibility of a sluicing analysis of wh-doubling as it is generally assumed that the lone wh-phrase in sluicing constructions is the Spec,CP remnant of the full clause.
      C. Another conspicuous difference between wh-doubling and sluicing is that while sluicing mostly requires a context selecting an indirect question, wh-doubling does not tolerate such a context. Consider again (15b), repeated here as (21):

(21) Some people left, *?(but I don't know) who

In wh-doubling, the most appropriate context would be something like the imperative *säg mer* 'tell me'. But still the result is highly degraded for simplex *waas* and completely ungrammatical for its morpholexical alternants:

(22) Was machemer moorn *?säg mer waas / *säg mer waaseli / *säg mer
      waaseliwaas?

Again, this discrepancy argues strongly against an analysis of wh-doubling in terms of a sentential object reduced to a fragment by ellipsis.

   D. A final contrast that may be observed between sluicing and wh-doubling has to do with restrictions on the complexity of the wh-phrase. Remember that Glaser and Frey (2006) observed that wh-doubling is limited to monosyllabic wh-phrases, see section 2.1.D above. While I argued there that the constraint is not quite that sharp in that some more phrasal looking disyllabic wh-phrases do allow wh-doubling, cf. the examples in (9), there is no denying that many more complex wh-phrases are excluded. We might, in fact, refer to the restriction on wh-doubling as the Oligosyllabicity Constraint. In illustrating this contrast, I will limit myself to one example.

(23)   a.   De James Bond faart mit emene ganz bsundere-n-Auto ume,   aber
                 the James Bond drives with a   very special   car   around but
                 ich wäiss nöd mit was für emene-n-Auto   ZH
                 I   know not with what for a   car
                 'James Bond drives around in a very special car, but I don't know with
                 what kind of car.'
       b.   Mit was für emene-n-Auto faart de James Bond ume   (*mit was
                 with what for a   car   drives the James Bond around   with what
                 für emene-n-Auto)?   ZH
                 for a   car
                 'What kind of car does James Bond drive around in?'

While the cause for the Oligosyllabicity Constraint is obscure, the observed contrast between sluicing and wh-doubling also suggests that there is a fundamental difference between the two constructions.

2.4 A copy movement analysis (rightward or leftward)

   A popular way of thinking about movement is to assume that it is a kind of two-step process: first a copy of the constituent to be moved is merged in the target position, and then one of the two copies, usually the lower one, is deleted, or rather, not pronounced. This approach to movement is often referred to as the copy theory of movement.[10]

   With this as background, it might be tempting to think that the Swiss German copy analysis can be dealt with by saying that, in this particular case, both copies of a moved constituent are pronounced. Unfortunately, however, there are several considerations that indicate that this approach to the problem is untenable.

---

[10] Another way of thinking about movement, similar in many ways to the copy theory of movement, is in terms of multi-dominance. The idea is that the element to be moved, in addition to the "address" it already has in the syntactic tree, is assigned a new, higher, address in the tree, viz. the target position. The element in question is thus connected to two dominating nodes (and has two sister nodes), hence it is doubly dominated. In this type of approach too, the theory must be supplemented with a theory of spell-out / linearization. In the standard case the element in question will be pronounced in its upper address.

A. Note, first, that the clause-final wh-element is not always identical to the fronted one. As shown in (19) above, morpholexical alternants of the regular wh-word are sometimes used.

B. Similarly, the final wh-element, perhaps due to some prosodic pressure for it to be short, can be elliptic. Indeed, this is often the preferred form:

(24)   [Wele-s   buech] häsch   dän   du gläse [weles ___]?   ZH
         Which-N.SG book   have.2SG MOD.PART you read   which (one)
         'Which good have you read?'

C. What is probably the main obstacle for a copy movement analysis of wh-doubling is that neither copy is in its original (*in situ*) position. Remember that Swiss German is an SOV-language. This means that the *in situ* position of any wh-word or wh-phrase will be to the left of the final verb or verb cluster.[11] With this in mind, consider an example with a direct object wh-element such as (25a). (25b) shows the same example with the persumed copy *in situ*.

(25)   a.   Was häsch   geschter gläse waas?   ZH
               what have-you yesterday read what
               'What did you read yesterday?'
         b.   Was häsch geschter [*was*] gläse waas?

That the position to the left of the participle *gläse* is the 'original' or *in situ* position is further confirmed by the fact that this is where it shows up in multiple questions:

(26)   Wëër hät geschter   waas gläse (waas)?   ZH
         Who has yesterday what read (what)
         'Who read what yesterday?

Note that a right-hand side copy is still possible, but it is optional, hence it is the one preceding the verb that is primarily responsible for the multiple question interpretation. By implication, this means that the wh-copy in extraposition cannot be the copy of the moved wh-word in examples like (25), as it would have to be were we to assume that Swiss German is underlyingly SVO and that this is the reason why the copy shows up all the way to the right. See Zwart (2011) for arguments to the effect that Dutch (along with other Continental West-Germanic languages (including Swiss German) shoud indeed be taken to be underlyingly SVO. See Haider (2010) for arguments to the contrary, that is, arguments to the effect that these languages are underlyingly SOV. The above data, at any rate, would seem to argue strongly against the SVO analysis, and thereby against a copy movement analysis of wh-doubling in Swiss German.

---

[11] Some caution is in order here. As the finite verb moves into second position in root clauses, there will be no visible (trace of the) verb cluster in root clauses that only have a single verb, the finite verb. But as soon as we have, for example, a composite tense form such as an auxiliary plus a participle, then the participle will be found at the end of the clause (modulo extraposed constituents).

D. Furthermore, any analysis in which the wh-element undergoes copy movement presupposes, presumably, a resulting structure in which the moved wh-element asymmetrically c-commands its copy-trace. This is in conflict with Nunes' theory of linearization and spell-out (Nunes 2004). As Den Dikken (2009) puts it:

> Note, however, that the multiple copy spell-out analysis of *wh*-copy constructions has never been straightforward. One of the thorny questions it raises is how we can allow multiple members of the same chain to be spelled out simultaneously, in a syntactic configuration in which the higher copy asymmetrically c-commands the lower one. If such multiple copy spell-out were generally allowed, we would be at a loss explaining the fact that it occurs so extremely rarely. In fact, besides the *wh*-copying construction,[12] I am not aware of any remotely successful arguments in the literature for multiple copy spell-out in an asymmetrical c-command configuration.

2.5 A wh-concord analysis

Den Dikken's critique of a copy movement analysis in 2.4 D carries over to the so-called wh-scope marking construction such as the one found in German and briefly alluded to in section 2.1 E example (11) and the discussion in 2.5 B below, cf. Van Riemsdijk (1983), McDaniel (1986), Fanselow (2006). And if a movement (copy) analysis is excluded we are inexorably led to an analysis in terms of agreement. Indeed, the situation sketched here for Swiss German is remarkably similar to e.g. negative concord as found in languages like Afrikaans in which a clause-internal negated constituent is "doubled" by a clause-final invariant negative scope marker *nie*, as illustrated in (22), from Van Gass (2007: 168, ex (2)).

(27)   Hy het nooit sy broer   vergewe nie
         he has never his brother forgiven NEG
         'He never forgave his brother'

Alongside this type of negative concord (cf. Zeijlstra 2004), then, it is reasonable to posit the existence of wh-concord which manifests itself in a number of ways.
    A. *In situ* wh-elements with a clause initial or final wh-scope-marker, as found, e.g. in Japanese (examples from Takahashi 1993: 669, examples (28)-(29)):

---

[12] What Den Dikken refers to here is not the Swiss German wh-doubling construction but cases of so-called partial wh-movement in languages like German in which identical copies show up in the scope position but also in lower complementizer positions (cf. Fanselow 2006), as in
(i)   Wem glaubst Du   wem wir vertrauen sollten
           whom believe you whom we trust   should
           'Who do you believe we should trust
See section 2.5 for more discussion.

(28)   Kimi- wa [Mary-ga   nani-o   tabeta to]   itta no?
       you-TOP   Mary-NOM what-ACC ate   COMP said Q
       'What did you say that Mary ate?'
(29)   Boku-wa [John-ga [Mary-ga   nani-o   tabeta to] itta ka] sitteiru
       I-TOP   John-NOM Mary-NOM what-ACC ate COMP said Q know
       'I know what John said that Mary ate'

    B. Wh-scope marking of the type found in partial wh-movement constructions may be thought of in similar terms; take an example from German (cf. Fanselow and Mahajan 2000, Fanselow 2006).[13]

(30)   a.   Wen$_i$ denk-st   du, dass sie e$_i$ lieb-t? (long movement)
               whom think-2SG you that she   love-3SG
               'Who do you think she loves?'
       b.   Was glaub-st   du, wen   sie lieb-t? (partial movement)
               SCM think-2SG you whom she love-3SG
       c.   #Wen glaubst du, wen   sie liebt? (copy movement)
                whom think   you whom she loves

As in the wh-doubling construction in Swiss German, the agreement between the two wh-elements is either limited to the features [+WH] or full (copy)agreement. A construction quite similar to the Swiss German one is found in some Northern Italian dialects (cf. Poletto and Pollock 2004). For an extensive discussion of "concordial scope marking" see Den Dikken (2009).
    C. An implicit consequence of the above discussion is that the clause final wh-element is taken to be a scope marker. This assumption, however, is probably wrong. It can be shown that the doubled final wh-element is sometimes in the embedded clause, even when the clause-initial wh-element indicates that wide scope is intended. Take long distance questions like those in (11), but with an extraposed adverbial clause added.

(31)   Was glaubsch   das si gsäit hät (waas) bevor si ggange-n-isch (?waas)? ZH
       What believe.2SG that she said has (WH) before she gone-EP-be.3SG (WH)
       'What do you think she said before she left?'
(32)   Was glaubsch was si gsäit hät (waas) bevor si ggange-n-isch (?waas)

The adverbial clause has narrow scope and it cannot be further extraposed from the embedded clause to the matrix clause due to the right roof constraint. As the preferred position of the doubled wh-element is before the adverbial clause, it must also be in the embedded clause, i.e. lower than the actual wh-scope. Note that the pre-adverbial positioning is also attested for Afrikaans, though I have not found any evidence for scope discrepancies (cf. Biberauer 2007 :18, example (29)).

---

[13] Regarding (30c), not all speakers of German accept this variant.

(33)   a.   Sy het   tydens die vergadering niks   gesê nie.
               she have during the meeting   nothing said not
               'She said nothing during the meeting'
       b.   Sy het niks   gesê nie   tydens die vergadering.
               she has nothing said NEG during the meeting

    D. There is at least one remaining question: how does the wh-copy end up in clause-final position? Without going into any details, there would, at first sight, appear to be two main possibilities:

(i)   The (split) C-projection is mixed headed, much like that of PP. This is not a surprise in that PP and CP have often been categorially identified.[14] AGREE applies to the full feature set. Depending on where exactly the adjunction takes place, there is likely to be a configuration of asymmetrical c-command.
(ii)   The complementizer complex, as we find it among others in the wh-scope-marking constructions, is generated at the left edge of the clause, i.e. in its standard position. Actual wh-movement is to some Spec position lower than the top CP.[15]. Subsequently the relevant remnant is adjoined to the left of the specifier that contains the "copy" (cf. Thiersch 2006).

    Without going into the details of these two approaches (there is too much that I have not worked out in detail, and doing so would exceed the confines of the present article), let me sketch a possible derivation of the following example for each of the two variants.

(34)   Was mäinsch   [wele   schnaps] das er trunke hät [wele e]   bevor er
        what believe-you which schnaps that he drunk has which-one before he
        ggange-n-isch?   ZH
        gone-EP-be.3SG
        'Which schnaps do you think he drank before he left?'

---

[14] See Emonds (1985), Corver and Van Riemsdijk (1996), Van Riemsdijk (1998).
[15] This could be Spec TP, Spec,IP, or (depending on where the subject goes) Spec,vP (cf. Den Dikken 2009). Alternatively, we may assume CP-recursion. For ease of exposition, the latter option has been chosen in the sample derivations.

Derivation for variant 1
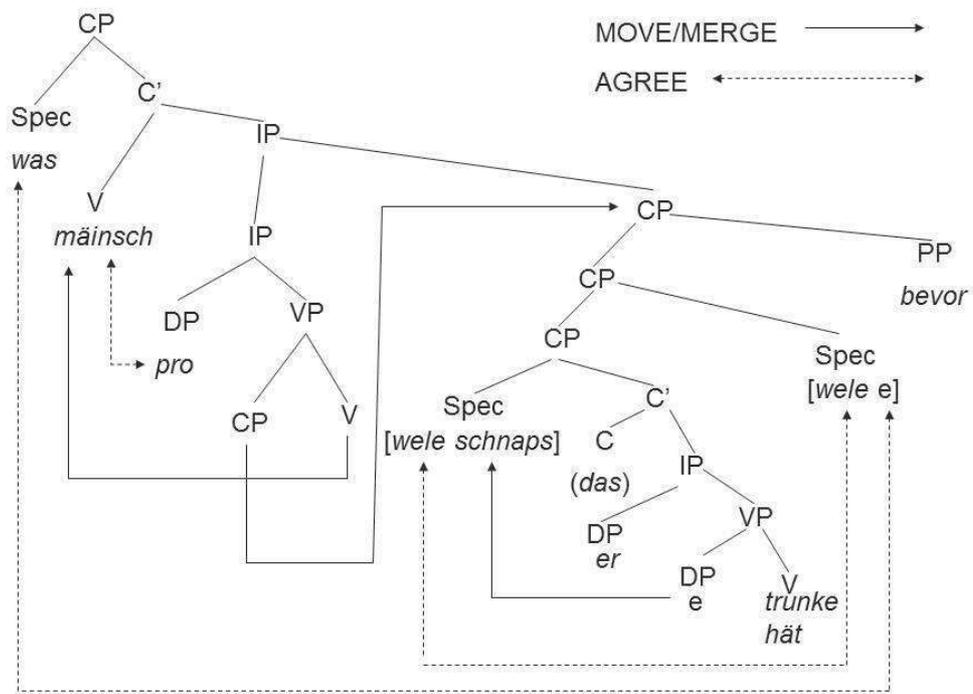
The derivation for variant 2
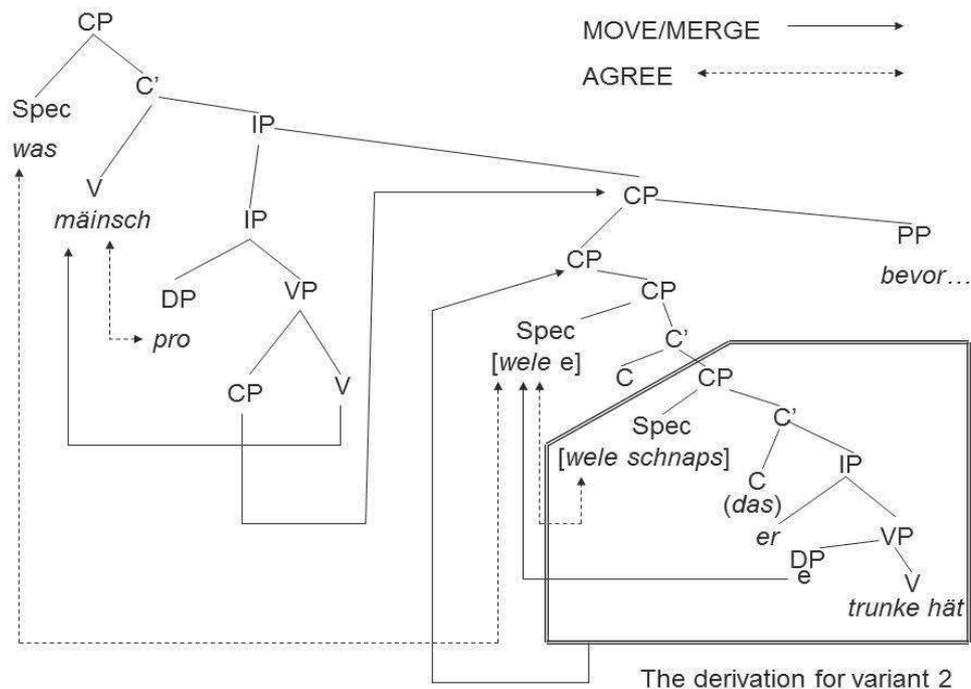
There are good reasons, however, to exclude variant 2. these reasons have to do with the fact that similar examples with the long wh-alternant (*waaseli* or *waaseliwaas*) would require that the long wh-form is in a clause-initial Spec,CP. However, as was shown in section 2.3.B, this is generally excluded. I conclude that an analysis along the lines of variant 1, in which the long wh-copy is base-generated in clause-final position, must be basically correct.

E. An intriguing question that remains is why full agreement is rare. It is apparently unattested for negative concord (Hedde Zeijlstra, p.c.) and rarely found in wh-concord. Josef Bayer suggests that the scope markers are unselective binders that cannot agree in all features as that would make them indistinguishable from overt movement. On the other hand, Den Dikken (2009) does not seem worried. This remains an open question for future research.

3. Conclusions

"Doubling" is and should remain a pre-theoretical, descriptive or mnemonic name. In actual fact constructions that have come to be referred to by the name doubling will be variously analyzed as instances of sluicing plus ellipsis, copy movement plus distributed spell-out, AGREE, or some other mechanism tolerated by linguistic theory. In the particular, and particularly interesting, case of wh-doubling in Swiss German, my conclusion is that it is best treated in terms of AGREE.

References

Anagnostopoulou, E. 2006. Clitic doubling. In M. Everaert and H. C. van Riemsdijk (eds.), *The Blackwell Companion to Syntax*, vol. I, 519-581. Oxford: Blackwell.

Biberauer, T. 2007. A closer look at negative concord in Afrikaans. *Stellenbosch Papers in Linguistics PLUS* 35: 1-51.

Corver, N. and Riemsdijk, H. C. van 1996. The position of the head and the domain of scrambling. In B. Palek (ed.), *Typology, Item Orderings and Universals. Proceedings of the LP'96 Conference on Word Order* 57-90. Prague: Charles University Press.

Dikken, M. den 2009. On the nature and distribution of successive cyclicity: Adjunction, resumption, and scope marking as the roads to success in long-distance relation building. Ms., NYU.

Emonds, J. 1985. *A Unified Theory of Syntactic Categories.* Dordrecht: Foris.

Fanselow, G. 2006. Partial wh-movement. In M. Everaert and H. C. van Riemsdijk (eds.), *The Blackwell Companion to Syntax* 437-492. Oxford: Blackwell.

Fanselow, G. and Mahajan, A. 2000. Towards a minimalist theory of wh-expletives, wh-copying, and successive cyclicity. In U. Lutz, G. Müller and A. von Stechow (eds.), *Wh-Scope Marking* 195-230. Amsterdam / Philadelphia: John Benjamins.

Frey, N. 2008. Wh-doubling in Swiss German: Copying of wh-words as tag-formation. *Proceedings of the Workshop on Microvariation in Syntactic Doubling, Meertens Institute, Amsterdam, March 2006* Zurich: University of Zurich Open Repository and Archive. <http://www.zora.uzh.ch/15542/2/nfrey-4V.pdf>.

Gass, K. van 2007. Multiple n-words in Afrikaans. *Stellenbosch Papers in Linguistics PLUS* 35: 167-201.

Ghomeishi, J., Jackendoff, R., Rosen, N. and Russell, K. 2004. Contrastive focus reduplication in English. *Natural Language and Linguistic Theory* 22: 307-357.

Glaser, E. and Frey, N. 2006. Doubling phenomena in Swiss German dialects. Meertens Institute Archive, Amsterdam. <http://www.meertens.knaw.nl/projecten/edisyn/Online_proceedings/Paper_Glaser-Frey.pdf>.

Haider, H. 2010. *The Syntax of German.* Cambridge: Cambridge University Press.

Jaeggli, O. 1982. *Topics in Romance Syntax.* Dordrecht: Foris Publications.

Kimper, W. 2008. Syntactic reduplication and the spellout of movement chains. Ms, University of Massachusetts at Amherst.

Leonardi, S. 2009. Cognitive doubling. Mind Consciousness and Language. <http://www.mind-consciousness-language.com/articles%20leonardi2.htm>.

Lidz, J. 1999. Echo reduplication in Kannada: Implications for a theory of word formation. *U. Penn Working Papers in Linguistics* 6: 145-166.

McDaniel, D. 1986. Conditions on Wh-chains. PhD dissertation. CUNY Graduate Center.

Merchant, J. 2004. Fragments and ellipsis. *Linguistics and Philosophy* 27: 661-738.

Merchant, J. 2006a. Sluicing. In M. Everaert and H. C. van Riemsdijk (eds.), *The Blackwell Companion to Syntax*, vol. IV, 270-291. Oxford: Blackwell.

Merchant, J. 2006b. "Small structures": A sententialist perspective. In L. Progovac, K. Paesani, E. Casielles and E. L. Barton (eds.), *The Syntax of Nonsententials: Multidisciplinary Perspectives* 73-91. Amsterdam / Philadelphia: John Benjamins.

Nikolaeva, I. 2007. Reciprocals and sociatives in Udehe. In V. Nedjalkov (ed.), *Typology of Reciprocal Constructions* 933-967. Amsterdam / Philadelphia: John Benjamins.

Nunes, J. 2004. *Linearization of Chains and Sideward Movement.* Cambridge, MA: MIT Press.

Poletto, C. and Pollock, J.-Y. 2004. On wh-clitics and wh-doubling in French and some North Eastern Italian dialects. *Probus* 16: 241-272.

Riemsdijk, H. C. van 1983. Correspondence effects and the Empty Category Principle. In Y. Otsu, H. C. van Riemsdijk, K. Inoue, A. Kamio and N. Kawasaki (eds.), *Studies in Generative Grammar and Language Acquisition* 5-16. Tokyo: International Christian University.

Riemsdijk, H. C. van 1998. Categorial feature magnetism: The endocentricity and distribution of projections. *The Journal of Comparative Germanic linguistics* 2: 1-48.

Riemsdijk, H. C. van 2001. *WH*-prefixes: the case of *wäisch* in Swiss German. In C. Schaner-Wolles, J. Rennison and F. Neubarth (eds.), *Naturally! Linguistic Studies in Honour of Wolfgang Ulrich Dressler Presented on the Occasion of his 60th Birthday* 423-431. Turin: Rosenberg & Sellier.

Riemsdijk, H. C. van 2002. The unbearable lightness of GOing. The projection parameter as a pure parameter governing the distribution of elliptic motion verbs in Germanic. *Journal of Comparative Germanic Linguistics* 5: 143-196.

Riemsdijk, H. C. van 2008. Identity avoidance: OCP-effects in Swiss relatives. In R. Freidin, C. P. Otero and M. L. Zubizarreta (eds.), *Foundational Issues in Linguistic Theory. Essays in Honor of Jean-Roger Vergnaud* 227-250. Cambridge, MA: MIT Press.

Stainton, R. J. 2006. Neither fragments nor ellipsis. In L. Progovac, K. Paesani, E. Casielles and E. L. Barton (eds.), *The Syntax of Nonsententials: Multidisciplinary Perspectives* 93-116. Amsterdam / Philadelphia: John Benjamins.

Takahashi, D. 1993. Movement of wh-phrases in Japanese. *Natural Language and Linguistic Theory* 11: 655-678.

Thiersch, C. (2006). Three Systems of Remnant Movement II and Extraction from Specifier Position. In Hans-Martin G:ärtner, Paul Law and Joachim Sabel (eds.), *Clause Structure and Adjuncts in Austronesian Languages* 233-281. Berlin: Mouton de Gruyter.

Yip, M. 1998. Identity avoidance in phonology and morphology. In S. G. Lapointe, D. K. Brentari and P. M. Farrell (eds.), *Morphology and its Relation to Phonology and Syntax* 216-246. Stanford, CA: CSLI.

Zeijlstra, H. 2004. *Sentential Negation and Negative Concord*. Utrecht: LOT.

Zwart, C. J.-W. 2011. *The Syntax of Dutch.* Cambridge: Cambridge University Press.