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Decomposing the Left Periphery
Dialectal and Cross-linguistic Evidence

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1. Goal

I will argue in this paper that the left periphery of the clause is morphosyntactically more articulate than usually revealed by its surface form, and that this form strongly resembles the surface form of languages which lack a left-peripheral encoding of the relevant features altogether. Important clues in favor of this connection are provided by dialects which show forms of so-called doubly filled COMP or forms of so-called CP-recursion. It will also be argued that the syntactic architecture of such varieties is supported by independent proposals about the semantics of questions. I will finally present evidence that verb-movement to the C-position ("I-to-C movement") is a core trigger for the activation of force features.

The article is organized as follows: Section 2 presents the elementary clausal architecture. Section 3 provides data which show that the C-position is more complex than certain standard languages reveal phonetically. Sections 4 and 5 turns to a consideration of East-Asian (Japanese and Korean) and Dutch dialectal data respectively. Sections 6 and 7 bring into the discussion the semantics of disjunctive questions and constituent questions. Section 8 contains a preliminary synthesis. Section 9 turns to verb-first (V1) and verb-second (V2) clauses in German showing in which way the structures looked at thus far are transformed into utterances with illocutionary force.

2. Elementary Clausal Architecture

According to recent syntactic theorizing, clauses are organized in roughly three layers. The lowest one is the lexical projection normally headed by V. Next, there is the inflectional layer headed by I, On top of this there is a layer which is headed by C, and which links the clause either to the immediately dominating clause or to the discourse.

V-PROJECTION	verb plus its arguments ...	
I-PROJECTION	tense, number, person, structural case, ...	"INWARDS ORIENTED"
C-PROJECTION	link to a matrix sentence or to discourse	"OUTWARDS ORIENTED"

Each field of this tripartite organization has been shown to be organized into sub-units. Larson (1988) has initiated research on a more fine-grained architecture of VP as VP-shells which has led to the proposal in Hale & Keyser (1993) and subsequently to the introduction of functional elements such as *v*. Pollock (1989) has initiated research on a more fine-grained archi-

tecture of IP with arguments in favor of splitting up I(NFL). This has led to separate projections for tense (TP), agreement (AGRsP, AGRoP), negation (NegP) and various others. Rizzi (1997) has argued extensively that the C-system needs to be decomposed accordingly. His research has led to a distinction of ForceP for the syntactic representation of illocutionary force, TopP for topical material, FocP for focused material, and FinP which is largely motivated by the fact that complementizers are sensitive to the finiteness or non-finiteness of the selected IP and certain inflectional morphemes which may be spelled out at C.

In this article I will limit my attention to the C-system, and even there I will have to refrain from a comprehensive discussion. I will rather concentrate on various complementizers, their co-occurrence with wh-phrases, and their simultaneous occurrence. Central data come Dutch and German non-standard varieties.

3. Is the C-Domain as Simple as it Looks?

The modern standard languages Dutch, English, French, German, Italian etc. appear to support the view that not much can be said about the C-system of embedded clauses. CPs are either initiated by C or by a wh-phrase or relative d-/wh-phrase. However, as is widely known, a look at older stages of these languages and/or their dialects and colloquial varieties reveals that they frequently show simultaneous filling of SpecCP and C:

(1)   Middle English
       men shal wel knowe **who that** I am
       'One shall wel know who I am'

(2)   Middle High German
       nu   hœrt ... **wa   daz** er mir lougent niht aller mîner leide
       now listen   what that   he me denies   not   all   my   pain
       'Now listen how much of my pain he denies'

(3)   Substandard French
       Je ne sais   pas **quand que** Marie   arrivera
       I not know   when   that Marie   arrive-will
       'I don't know when Marie will arrive'

(4)   Substandard Italian
       Non so **quando che** Mario arriverà
       (same as 3)

(5)   South-Thuringian (German)
       West duu öpper, **wi   lang daß** di   walt beschtenna wörd?
       know you perhaps how   long that the   world exist   will
       'Do you know how long the world will last'
                                                             Schleicher (1858)

(6)   Bavarian (German)
       Frog's   doch, **wia lang daß**'s   no   dobleim woin!
       ask-them   PRT how long that-they   still stay   want
       'Ask them how long they still want to stay!'

I all these examples the C-domain shows, in addition to the wh-phrase, a featurally neutral morpheme of subordination. While in GB-theory this was initially taken to be a doubling of

C(OMP) (cf. Bayer, 1984), X'-theory demands that the wh-phrase is in the specifier of C. Thus, there is a clear distinction of head and specifier. From the Barriers-framework onwards, the standard account would be to say that there is a parameterization as to whether C can be lexical or has to be zero. Starting from a base with a lexical C, (7) could either apply or not apply:

(7) $C \rightarrow \varnothing$ /wh __   (parameterized)

Problems with the rigid separation of wh-phrase and C-head did not remain unnoticed. The problem with coordination is widely known. Witness (8):

(8) Coordination of unlikes
    a. They begin to understand that he is crazy and why he won't change
    b. They begin to understand that and why he won't change

It appears that in (8a) C' is coordinated with CP, and that in (8b) either IP has undergone right-node raising in an ATB-operation, or a head and a phrase have been coordinated. The problem looks as if the pre-Barriers X'-theory was more successful.[1]
    Another problem is the following: In Bavarian, wh and *daß* normally live in happy co-existence. In my own dialect, however, the wh-pronoun *wos* ('what') unexpectedly, breaks out of this schema. Consider the data in (9):

(9) *wos* ('what')in Bavarian
    a. I woaß, **wos** -a   gern   trinkt
       I know what-he   preferably drinks
       'I know what he likes to drink'

    b. ?*I woaß, **wos** daß-a gern trinkt

    c. I woaß, **wos fiar-a-Bier** daß-a   gern   trinkt
       I know what for-a-Bier that-he preferably drinks
       'I know what kind of beer he likes to drink'

Wos is only possible, if it is restricted as in (9c). If it is unrestricted, it is much happier without the company of *daß*. In order to understand what is going on here, one must realize that the German pronoun *was* belong to the maximally underspecified parts of speech of the language. As Jäger (2000) and Bayer (2002) have pointed out, the lexical entry of *was* must lack the categorial feature N, it lacks Case and it lacks the semantic feature THING (-human). If *was* turns out to have any of those features, it must have acquired them contextually. But if this is true, Bavarian *wos* in (9) can be a wh-expression with the feature set {N, wh, acc, liquid, ...} and a possible form of C simultaneously.[2] The deviance of (9b) can then be derived from a ban against redundancy (which itself may derive from economy). This ban would require that one complementizer is sufficient, if the existence of another less specific one can be inferred. The phrase *wos fiar-a-Bier* in (9c) is different. If it is a pure wh-phrase which excludes the features of C, it is natural that C appears separately.
    As a corollary to this, consider modern English. Wh-phrases in modern English seem to perform two jobs: On the one hand, they are wh-operators, on the other hand they seem to

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[1] Kathol (2000) goes even as far as arguing in favor of a purely linear organization of the clause by which wh and C form a natural class as typical representatives of the clausal left edge.
[2] Notice that in many languages the wh-pronoun for ‚what' serves as the most unmarked complementizer; cf. Bayer, 1999.

comprise features of subordination, i.e., the features which had to be spelled in Old English as *that* and have to be spelled out in certain modern dialects of French, Italian and German as *que*, *che*, *daß* respectively. In that case, the coordination of *that* and *why* in (8b) loses its surprise effect. Both are in a sense complementizers, the difference being that in comparison with the first, the second carries additional features.[3] My solution of the contrast in (9) is then to say that (a) wh-expressions in Bavarian lack (or may lack) pure C-features and therefore have to spell out C separately, and that (b) due to its radical underspecification, *wos* adopts C-features – and in fact wh-operator features too – contextually by movement to the left edge of IP in the same way as it has adopted the features {N, acc, liquid, ...}in the process of merger with the verb *trinken*.

This 'Gedankenexperiment' – if on the right track – has two result: (i) While the PF-side of the left periphery of a CP still looks rather dull, its feature structure may not be dull at all. This is due to the trivial fact that lexical forms and their projections may have a complex feature structure according to which each feature can act as a licenser in its own right. (ii) Varieties which show the doubly-filled-COMP property are not necessarily "strange" in comparison to varieties which attend to the Doubly-Filled-COMP Filter (DFCF). Once we can trace back the variation to feature structure and therefore ultimately to the lexicon, such variation is expected in the way lexical variation is expected, and there is no redundancy. The next section will give comparative syntactic evidence in favor of this sketch.

4. A Look at East-Asian „Wh-in-situ"

East-Asian languages offer an interesting domain of comparison with the Western languages because they lack a left periphery, and instead distribute the pieces of information which are found in condensed form in the left periphery, over different positions between the clausal center and its right edge. The following data are taken from Sohn (1999), Hagstrom (1998) and Nishigauchi (1990):

(10) Korean
    akasi   -nun [[[ku-ka   **mwues**-ul   mek-kess] **-nya**] **-ko**]   mwulessta
    waitress-TOP   *he-NOM   what -ACC   eat-want   -Q   -QUOT asked*
    "The waitress asked what he wanted to eat"

(11) Japanese
    John-ga   [[Mary-ga   **nani**-o   katta]   **ka**]   sitteiru
    John-NOM Mary-NOM   what-ACC bought   Q   knows
    "John knows what Mary has bought"

(12) Korean
    Bill-um   [[[John -i   wa -ss]   **-nya]**   **-ko**]   mwulessta
    Bill-TOP   John -NOM   come-PAST   -Q   -QUOT   asked
    "Bill asked whether John had come"

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[3] To see that this is not a radical deviation from UG-principles, consider the coordination of pronoun and DP as in [*she*] and [*her husbands former wife*] which according to Minimalist assumptions cannot be more than the coordination of N and DP. We do not want a theory which demands that the two have identical structures.

(13) Japanese
     boku -wa [[John-ga   kuru]   **ka-dooka**] sir-i-mas-en
     I   -TOP John-NOM comes Q   know   -not
     "I don't know if John will come"

Interestingly, in (10) and (11) we see a tripartite lexicalization of wh-phrases. Within the clause there is an element "in situ", typically an argument. Disjoint from this, there is a question morpheme Q, which in Korean is still followed by a quotative element QUOT which resembles a neutral C such as German *daß*. Another interesting point is that disjunctive question complements are more or less identically construed, the only difference being that the in-situ element, which corresponds to a semantic variable, is missing: Q-morpheme and QUOT-morpheme remain essentially the same.

Many head-final languages with agglutinative morphology show a detailed landscape of morphemes which correspond to features which one associates with the C-layer. For relevant data on Korean cf. Sohn (1999) and for a general account with respect to the hierarchy of adverbs cf. Cinque (1999).

The Korean and Japanese examples in (10) through (13) convey an important message, namely that these languages achieve in a more perspicuous way (from the linguists' point of view) approximately what the Western languages achieve by moving elements to the left periphery which often embrace a number of heterogeneous features and therefore easily escape proper analysis. One highlight is the separation of elements that are normally joined together in a wh-phrase: Subordinative morpheme, interrogative morpheme, and quantification / restriction.

In the next section I will show that certain Germanic dialects exhibit a closer resemblance to the East-Asian data than the corresponding standard languages.

5. CP-Recursion in Dutch

There are Germanic dialectal data which show overtly that the landscape of the left periphery may be even richer than the widespread phenomenon of Doubly-Filled COMP suggests. Data of this sort are at least found in colloquial substandard Dutch (cf. E.Hoekstra, 1993), West-Flemish (cf. Haegeman, 1992) and certain varieties of Swiss German (cf. von Stechow, 1993).[4] The following Dutch data are taken from E. Hoekstra (1993).

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[4] Standard varieties of German do not allow the constructions to be discussed in the text, but they allow lots of related variations in the domain of prepositional complementizers such as *anstatt* ('instead'), *bevor* ('before'), *bis* ('until'), *nachdem* ('after'), *obwohl* ('although') etc. which may cooccur with the neutral subordinator *daß*. Notice also other combinations such as *sobald* ('as soon as') with *als* or *wie* ('as'):

(i)   a.   Anstatt hier zu bleiben   lief das Kind davon
                 instead here to stay   ran the child away
                 'Instead of staying here, the child ran away'
         b.   Anstatt daß es hier blieb   lief das Kind davon
                 instead that it here stayed ran the child away

(ii)   a.   Sobald   er aus der Tür trat   erfasste ihn die Kälte
                 as-soon he out the door stepped   caugh   him the cold
                 'As soon as he stepped out of the door, he was caught by the coldness'
         b.   Sobald   als/wie er aus der Tür trat   erfasste ihn die Kälte
                 as-soon as/as   he out the door stepped   caugh   him the cold

(14) Ik vraag me   af   [**of** [**dat** [Ajax de volgende ronde   haalt]]]]
     I ask   me PRT if   that Ajax the next   round   reaches
     'I wonder whether Ajax will make it to the next round'

(15) Dat is niet zo gek   [**als** [**of**   [**dat** [hij gedacht had]]]]]
     this is not so strange   as   if   that he thought had
     'This is not as strange as he thought'

(16) Hij weet [**hoe** [**of** [je   dat   moet doen]]]]
     he knows how if you   this must do
     'He knows how you must do this'

(17) Ze weet [**wie** [**of** [**dat** [hij had   willen   opbellen]]]]]
     she knows who if that he   had   wanted call
     'She knows who he wanted to call'

In Standard Dutch, (14) would only contain the question complementizer *of*; it would lack the neutral complementizer *dat*. In (15) one would only find the comparative complementizer *als*. In (16) the question-type C-head *of* would be missing, and there would only be the wh-word *hoe*. Finally, both *of* and *dat* would be missing in (17) in favor of the wh-word *wie*.

At first sight, the left clausal periphery of these colloquial data seems to be hopelessly redundant. But why should such an abundance of expression hold? One hypothesis could be that for some reason *of+dat* and wh+*of+dat* are complexes which have emerged as a result of overuse or grammaticalization. In this case, they would perhaps be lexically primitive head-amalgams. Hoekstra (1993) shows, however, convincingly that this hypothesis cannot be defended. Various tests, which for reasons of space cannot be represented here, reveal that the relevant elements head individual CP-shells. This corroborates my earlier claim that the different heads differ in feature structure. *Dat* is a pure subordinator; *of* is a morpheme of disjunction; the wh-element is a complex of features which, however, lacks the features of disjunction and subordination, whereas it contains these features in the standard language. If this is true, the data in (14) through (17) contain no redundancy at all. On the contrary, they rather look like completely expectable compositions of discrete units of meaning.

The resemblance between these Dutch data and the Korean/Japanese data in section 4 cannot be overlooked. Apart from the fact that the wh-phrase must be moved, there is a morphological distinction between a pure interrogative or disjunctive morpheme *of* and a pure subordinator *dat*. The following table summarizes the similarity between Korean and Dutch question-type complements.

	(wh)	Q	C
Korean	unmoved	*-nya*	*-ko*
Dutch	moved	*of*	*dat*

It is an open question under which circumstances languages with an articulate left periphery of CP allow for variation of this kind. My presumption is driven by the Minimalist conjecture that there is no true optionality in natural language. Under this perspective, *of* in standard Dutch and *of* in colloquial substandard Dutch would differ by the fact that the first comprises a pure feature of subordination, while the latter does not. If speakers vary in their own dialect, this would mean that they can use homophonous morphemes with different feature structure.

Since to my knowledge no empirical work on this issue seems to be around, I have to leave it as a speculation.

In the next section I will consider the semantics of disjunctive questions, and I will try to connect it to the lexical choice of question markers that can be observed in various languages.
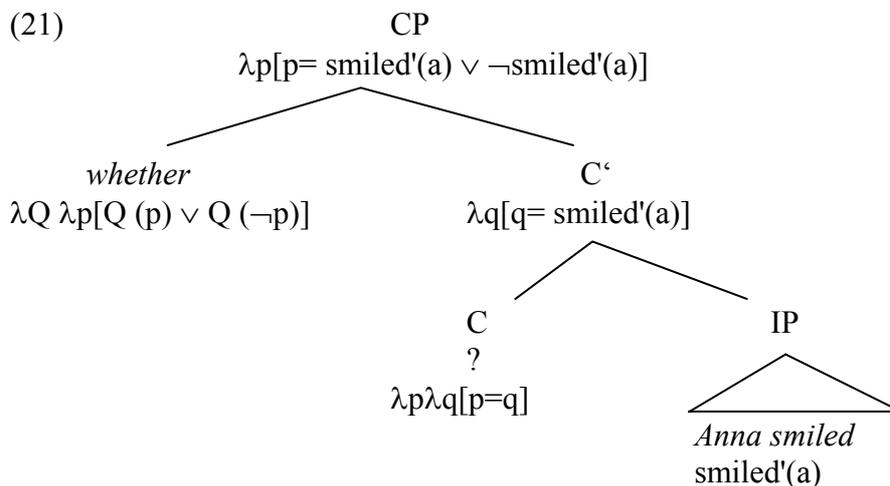

6. Disjunctive Questions

Disjunctive questions are questions which leave the truth of a proposition open, i.e., to know whether p is the case is to know whether p is not the case. There is no third value. The English sentences in (18) and the German sentences in (19) can be semantically represented as in (20).

(18) a. John knows whether Anna smiled
      b. John knows whether Anna smiled or ~~whether Anna did~~ not ~~smile~~
      c. John knows whether Anna smiled or Clara cried

(19) a. Hans weiß, ob Anna lächelte
      b. Hans weiß, ob Anna lächelte oder ~~ob Anna~~ nicht ~~lächelte~~
      c. Hans weiß, ob Anna lächelte oder Clara weinte

(20) a. John knows $[\lambda p \ [p = Anna \ smiled] \vee [p = \neg[Anna \ smiled]]]$
      b. John knows $[\lambda p \ [p = Anna \ smiled] \vee [p = [Clara \ cried]]]$

Following Hamblin and Karttunen, it is assumed that *whether* (like any other wh-phrase) is associated with an interrogativizing element ? in C (cf. von Stechow, 1993, 1996; Lahiri, 2002). Omitting certain details, this derives (18a,b)/(19a,b) as in (21).

(21)

$$CP$$
$$\lambda p[p= smiled'(a) \vee \neg smiled'(a)]$$

whether
$\lambda Q \ \lambda p[Q \ (p) \vee Q \ (\neg p)]$

C'
$\lambda q[q= smiled'(a)]$

C
?
$\lambda p \lambda q[p=q]$

IP

Anna smiled
smiled'(a)

By lambda-conversion ? integrates the proposition [smiled' (a)]; C' denotes the set of propositions q such that Anna smiled in q, i.e., the property of being such that Anna smiled. SpecCP (*whether*) introduces the disjunction as the higher-order property of being true of p or of the negation of p. By lambda-conversion C' is integrated; CP denotes the set of propositions p such Anna smiled or Anna did not smile. If John knows whether Anna smiled (or not), he knows whether [smiled'(a)] = 1 or [smiled'(a)] = 0.

Important for the present discussion is the disjunctivity which enters the derivation with *whether*. Disjunctivity is very often morphologically signaled by lexical contaminations as in

English *whether* ("wh+either"), Bengali *ki na* ("what not") or by particles which are also used for disjunctive coordination:

(22) Bengali
     ami jani na   [sita biye   kor -be **ki   na**]
     I know not   Sita marrying   make -FUT what not
     'I don't know whether Sita will get married (or not)'

(11) and (13) are Japanese examples which involve the morpheme *ka* as a question morpheme. (23) shows that this morpheme is also used as a disjunctive connective.

(23) Japanese
     John-**ka** Bill-**(ka)**-ga   hon-o katta
     John-Q Bill -Q   -NOM books bought
     'John or Bill bought books'   *Kuroda, 1965, (Hagstrom, 1998)*

The same is true for Korean and for other languages. Consider, for example, Sinhala and Malayalam:

(24) Sinhala
     a. mahattea-tə   tee **də** koopi**də**   oonə?
        mister -DAT tea Q   coffee Q   necessary
        'Does the mister want tea or coffee?'

     b. Chitra ee potə kieuwa **də?**
        Chitra this book read Q
        'Did Chitra read this book?'   *Gair, 1970, (Hagstrom, 1998)*

(25) Malayalam
     a. ñaan John-ine   -(y)**oo** Bill-ine-(y)**oo**   kaNDu
        I   John-ACC -Q   Bill-ACC-Q   saw
        'I saw John or Bill'

     b. John wannu-(w)**oo**?
        John came -Q
        'Did John come?'   *Jayaseelan (2001)*

These data suggest that, if we take the embedded disjunctive question to be a single-headed CP, the head of CP is not actually the semantic device symbolized by the interrogativizer ? as in (21) but rather a disjunctive Q operator which is merged to IP. This does, of course not exclude the possibility that ? merges with IP before the disjunctive head (corresponding to *whether* in (21) is applied.

It is a morphological idiosyncrasy whether disjunctive Q is part of a wh-phrase as in the English contracted form *whether* or appears as an independent head as in English *if,* Dutch *of,* German *ob,* Japanese *ka,* Sinhala *də,* and Malayalam *oo*), or as another complex for such as Bengali *ki na.*

    In the next section we turn to constituent questions. The important point about constituent questions in the present discussion is that they seem to share much with disjunctive questions.

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This fact cannot be overlooked in East-Asian (cf. (10) through (13)), but is also visible in colloquial Dutch (cf. (14), (16) and (17)).

7. Constituent Questions

What is the semantics of a constituent question like (26)?

(26)   John knows who smiled

Seen from the surface syntax of Western standard languages, the format of a constituent question is very distinct from a disjunctive question. Therefore we may ask whether there are intrinsic semantic reasons to see the two in close company. Disjunctive questions operate on the two truth values. Constituent questions operate on domains which are defined by the restriction of the wh-expression in relation to some property expressed by the rest of the sentence. Thus, the two look rather different. And in fact, the standard theory of Karttunen (1977) leaves the two more or less unconnected. But there are theories of the semantics of questions which indeed support an alternative view according to which disjunctive and constituent questions share the same structure in the sense that constituent questions are just special cases of disjunctive questions. The semantics of questions which links disjunctive and constituent questions as closely as possible is the PARTITION approach developed in Groenendijk & Stokhof (1982), Higginbotham (1993; 1997) and Lahiri (2002). What is the central idea? For alternative questions the relevant partition is $\{\{p\} \mid \{\neg p\}\}$. Constituent questions rest on partition as well, the difference being that p contains a VARIABLE. This amounts to quantifying into p such that the computation runs through the set of individuals which are suitable to replace the variable in p. (26) – *John knows who smiled* – is then true iff John knows for each individual that may be a potential smiler whether he/she smiled or not. In case only two individuals, say, Anna and Clara, are discourse relevant, (26) means that John knows for each of them whether he/she smiled or not:

(27)   Set of alternatives
       {smiled (Anna) & smiled (Clara), smiled (Anna) & ¬smiled (Clara),
       ¬smiled (Anna) & smiled (Clara), ¬smiled (Anna) & ¬smiled (Clara)}

A problem with this approach seems to be its rigidity. If I know where I can find a gasoline station in my neighborhood, I may be able to identify only one such location although there are others which I have not seen or heard about before. We would still not wish to say that in such a situation the statement *I know where I can find a gasoline station in my neighborhood* is wrong. I believe (with others) that examples of this kind are not really a challenge to the partition approach, if one tries to develop a semantic account without mixing in pragmatics directly. Consider the statement of a police inspector who says *I know who killed the victim*. In that case he better know the EXACT set of people who have committed the crime. All that follows from such examples is that the standards of what we are willing to see as knowledge are not independent of general values we attribute to states of affairs. In my view, this does not undermine the partition approach. It rather shows that model theoretic semantics does not (and perhaps should not try to) provide an exhaustive theory of meaning. For relevant discussion cf. Groenendijk & Stokhof (1982).

Considering example (26) again and ignoring the pragmatic problems associated with propositional attitudes, the partition approach gives an interesting result because the propositions which are yielded by replacing the variable by a constant are disjunctively connected. This

can be seen in the simple example (27): If both Anna and Clara smiled it cannot be true that Anna smiled and Clara did not smile, etc. etc. Given that the semantics of constituent questions involves disjunction, the relation to disjunctive ("alternative") questions is quite obvious. Both types of questions rest on the same basic mechanism, namely the alternative of true and false, essentially the law of the excluded third. Thus it is expectable that ANY type of question carries a disjunctive operator, be it openly spelled out as a morpheme or covertly expressed as a feature which is part of a more comprehensive expression such as a wh-phrase.

In the next sections I want to reconsider the data presented so far under the perspective that disjunctive questions and constituent questions essentially rest on the same syntactic and semantic architecture, and that constituent questions appear to be more complex for the simple reason that they involve an operator-variable relation which alternative questions lack.
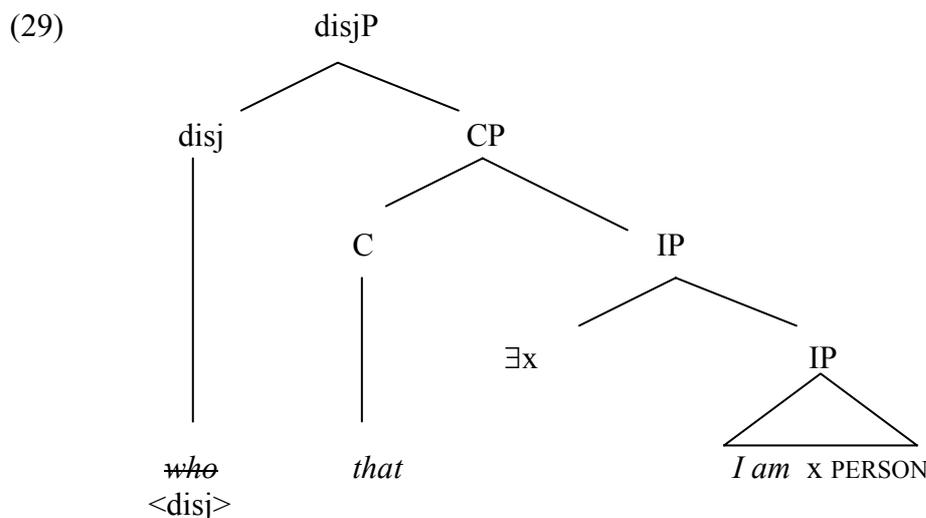
8. Capturing Syntactic Variation

8.1 Doubly-Filled-Comp (DFC) Languages

In languages which disobey the DFCF, wh is unspecified for the categorial feature <C>. Thus, a separate lexical element – *that, daz, che, que, daß* – is merged before wh-movement takes place.

(28)   men shal wel knowe **who that** I am   (=1)

According to the semantic considerations in section 7, the wh-phrase is a complex of a number of things: It is a variable which is restricted by the feature <PERSON>; secondly, this variable seems to be bound by an existential operator; third, there is a feature for disjunction which I will call <disj> in order to distinguish it from ? in the tree (21). The wh-phrase which comprises <disj> moves in order to type the clause as a question. The pure complementizer *that* cannot do this. I assume with Chomsky (1995) that the wh-operator leaves a copy behind which then serves as a variable that gets bound by an operator adjoined to IP. (28) then translates into something like (29):

(29)

```
                          disjP
                      ___/    \___
                 disj            CP
                  |          __/    \__
                  |         C          IP
                  |         |      __/    \__
                  |         |    ∃x          IP
                  |         |                /\
                 who       that         I am  x PERSON
                <disj>
```

In languages like modern standard English, which obey the DFCF, the wh-phrase is assumed to be specified for <wh,disj,C>. Thus, the wh-phrase is moved to the left edge of IP where it does different things: It types the clause as in (29), but it also identifies C. This amounts to

saying that there is actually no empty C. In languages which follow the DFCF, C is nothing else but a feature inherent in the wh-phrase. This conclusion should not strike us as strange because the wh-phrase is a complex of (heterogeneous) features anyway. Thus, while the PF-side looks simpler in such languages, the LF-side is as in (29).

One consequence of the Minimalist relaxation of X'-theory is that the problems mentioned in section 3 can be solved more easily. If German *was* and Bavarian *wos* (both meaning 'what') are radically underspecified, they may not only comprise the feature <C> but count as a morphological instantiation of C. This would explain why Bavarian *wos* cannot co-occur with *daß* although Bavarian is generally a DFC-dialect.

8.2 Dutch CP-Recursion

In substandard Dutch, *of* may be unspecified for the feature <C>. Thus, *of* can co-occur with *dat* which is specified for <C>. Consider (14) which is repeated here as (30):

(30) Ik vraag me   af   [**of** [**dat** [Ajax de   volgende   ronde   haalt]]]
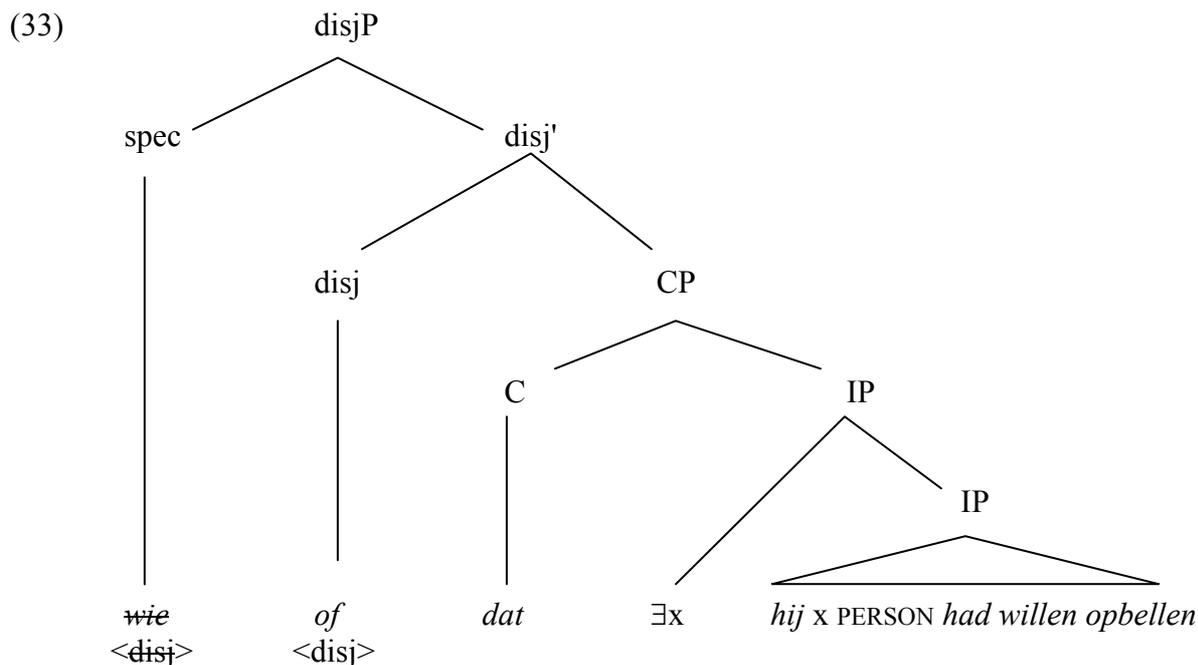   *I   ask   me   PRT   if   that   Ajax the   next   round   reaches*

The CP-complement of (30) is then syntactically represented as in (31):

(31)

```
                         disjP
                        /      \
                   disj          CP
                    |           /    \
                    |          C        IP
                    |          |       /  \
                    |          |      /    \
                    of        dat    Ajax de volgende ronde haalt
                  <disj>
```
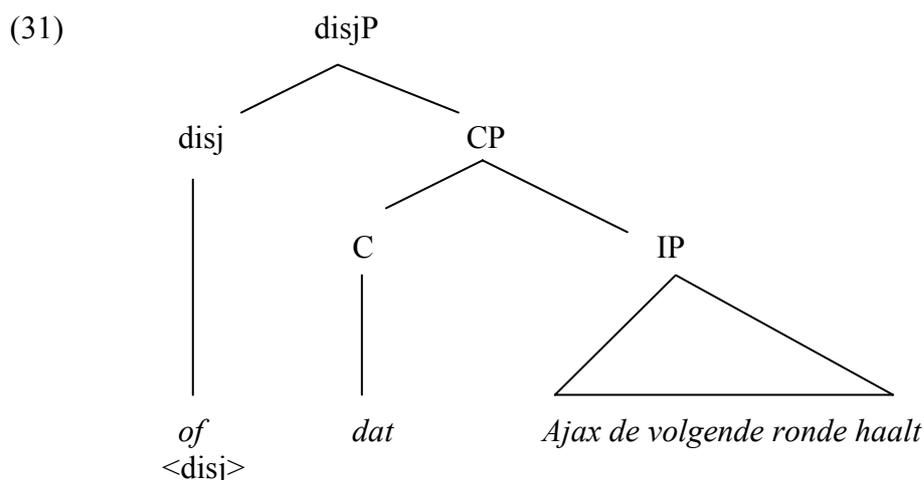
We have so far assumed that the wh-phrase may be unspecified for the feature <disj>. Therefore, we said, it can co-occur with *of*, which is specified for <disj> but which in turn may be unspecified for <C> (cf. 8.2):

(32) Ze weet   [**wie** [**of** [**dat** [hij   had   willen   opbellen]]]]
      she knows   who   if   that   he   had   wanted   call

However, data like (32) lead to the question why wh-movement should apply at all, if the disjunctive complementizer *of* already heads the clause. I assume that the sentence *Ze weet* [*of* [*dat* [*hij **wie** had willen opbellen*]]] is not quite grammatical (unless it is intended as an echo, perhaps). I suggest here is that *of* may optionally carry an EPP-feature which can be checked by a wh-phrase, and that the wh-phrase does carry the feature <disj>. Since both *of* and the wh-phrase carry the feature <disj>, the wh-phrase will lose it in the process of checking. This leads to the tree representation in (33) which shows the structure after feature checking:

(33)

```
                    disjP
            _____|_____
          spec             disj'
           |          _____|_____
           |        disj            CP
           |         |          _____|_____
           |         |         C            IP
           |         |         |        _____|_____
           |         |         |       /          IP
           |         |         |      /      _____|_____
          wie        of       dat    ∃x    hij x PERSON had willen opbellen
        <disj>     <disj>
```

If this account is correct, its corollary is that in standard Dutch, *of* and *wh-* are specified as <C,disj> and <C,disj,wh> respectively. Thus, these items fulfill simultaneously what the sub-standard variety achieves by extra steps of merge. Insertion of these items in the left periphery is driven by the familiar processes. *Of* is merged with IP because it is a complementizer and as such incorporates <C>; it has selectional features which requite IP to be +finite. Movement of a wh-phrase achieves various things simultaneously. Since *wh-* incorporates <C,disj>, wh-movement activates these features in the derivation. Although neither C nor disj materialize at the PF-side of the derivation, these elements lead to an LF-representation as in (33). Of course, the feature <disj> will not be checked off in this case because there is no *of*-complementizer. This leads to the desired result because <disj> is an interpretable feature whose single occurrence must not be lost.

8.3 Wh-in-situ

The East-Asian language and to some extent also South-Asian languages do not move wh-phrases to the clausal periphery. The wh-phrase appears to remain "in situ".[5] This fact obviously correlates with the presence of morphemes which correspond to <disj> and <C>. Consider the Koran data (10) and (12) which are repeated here as (34) and (35).

(34) akasi   -nun [[[ku-ka   **mwues**-ul   mek-kess] **-nya**] **-ko**]   mwulessta
      waitress-TOP   he-NOM   what -ACC   eat-want   -Q   -QUOT asked
      'The waitress asked what he wanted to eat'

(35) Bill-um [[[John -i   wa   -ss]   **-nya]   -ko**]   mwulessta
      Bill-TOP   John -NOM   come-PAST   -Q   -QUOT   asked
      'Bill asked whether John had come'

---

[5] The assumption that the wh-phrase remains in situ has been challenged. At least for South Asian languages it has been argued the wh-phrase moves to a functionally defined focus field to the left of V. Cf. Jayaseelan (2001) and Simpson & Bhattacharya (2000). For reasons of space I have to leave this aspect aside.

The complement of (35) shows a mirror image of the colloquial Dutch datum in (14)/(31): What we have glossed with Q corresponds to the feature <disj> and has scope over IP. This complex is itself in the scope of QUOT, which corresponds to C. But why should the scope between Q and QUOT be reversed in comparison with Dutch *of* and *dat*? I believe this is due to the fact that *-ko* is really a quotative element rather than a semantically neutral complementizer such as *dat*. As can be expected, the quotative suffix marks the highest layer of structure in an embedded clause which is selected by a verb of speaking.[6]

In (34) we see essentially the same constellation, the difference being that there is a wh-phrase in situ. Why does this element not move to the specifier of Q? I assume this follows from the fact that heads in strictly head-final languages like Korean remain syntactically inactive in the sense that they do not license specifiers into which material has to move for reasons of feature checking (especially EPP-checking).[7] If this is true, the wh-element in situ should lack the feature <disj> which we have claimed is part of wh-phrases in the standard Western languages which use wh-movement.[8] Let us now take the liberty of replacing Q by disj. Then the LF-side of the complement clause of (34) looks as in (36):

(36)
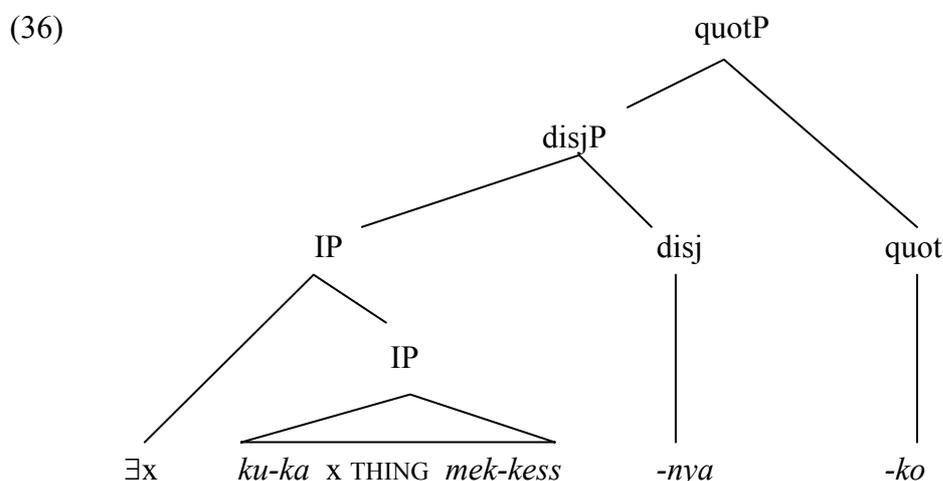
Ignoring the difference that derives from the difference of C and QUOT, this representation is structurally the same as the one in (33).

8.4 Intermediary conclusion

If we were on the right track so far, the PF-shape of the CP's left periphery is the result of the lexical ingredients which a language or dialect has at its disposal. Depending on what kinds of features can be integrated into a single item, the left periphery may look more or less complex. Comparison with East-Asian languages reveals surprising similarity. These languages show at the PF-interface structures which are close to structures at the LF-interface, and which are often obliterated in the Western languages due to "morphological packing". We have seen that certain non-standard varieties of Germanic show a closer resemblance to these Eastern languages, albeit differences which relate to the head parameter. This result conforms to Borer's (1984) hypothesis about parametric variation which locates the source of parametric variation in the lexicon and in the morphology.

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[6] For detail on quotatives cf. Bayer (1999) and the literature reported there.
[7] Cf. Bayer (to appear).
[8] Unfortunately I cannot support this theory-driven conclusion with independent empirical evidence.

In the rest of this article I will sketch out in which sense the architecture we have observed in the embedded clause may be expanded in the root clause.

9. How does Illocutionary Force Enter the Tree?

I have committed a terminological crime by calling the embedded CPs we have discussed so far 'questions'. The terminology suggests the act of asking for missing information, but sentences in the interrogative format are not necessarily interrogatives in the sense of speech-act theory. Rather than denoting questions they only REFER to question. We are therefore well advised to keep the two things separate. The assumption is that illocutionary force is primarily a root phenomenon, and that the embedded clause primarily does not have a layer of force at all.[9] I use the qualification "primarily" because there are apparently exceptions which will play a role in the following discussion.

How is illocutionary force represented syntactically? In (residual) V2-languages there are clear indications that I-to-C is a core device. We will demonstrate this below and also turn to apparent exceptions.

9.1 I-to-C

According to my knowledge, Stephen Wechsler was the first to suggest that the verb-second (V2) phenomenon should be explained as a process that visualizes features of illocutionary force; cf. Wechsler (1989; 1991) for an account of V2 in Swedish which carries over to German and other V2-languages.

9.1.1 German

Consider German. The data in (37) through (41) suggest that V2 is a root phenomenon and is blocked in the subordinate clause.

(37) a. Die Frage,   ob   das   Experiment gelingen   **wird**, ist von
        the question   whether the   experiment succeed   will   is of
        entscheidender   Bedeutung
        decisive   importance
        'The question whether the experiment will succeed is of decisive importance'

   b. *Die Frage, **wird** das Experiment gelingen, ist von entscheidender
        Bedeutung

   c. **Wird** das Experiment gelingen?
        'Will the experiment succeed?'

(38) a. Die Frage,   welches Experiment   gelingen **wird**, ist von
        the question   which   experiment   succeed will   is of
        entscheidender Bedeutung
        decisive   importance

---

[9] Note that such a distinction is missing in Rizzi (1997). Rizzi assumes a unitary force system which links the sentence either to the preceding discourse or to the immediately dominating clause.

b. *Die Frage, welches Experiment **wird** gelingen, ist von entscheidender
   Bedeutung

c. Welches Experiment **wird** gelingen?
   'Which experiment will succeed?'

(39) a. Dem Befehl, von   hier aus zwei Schritte nach links zu **gehen**,
        the   order   from here   two   steps   to   left   to move
        wurde   nicht nachgekommen
        was   not   followed
        'The order to move two steps to the left from here was ignored'

b. *Dem Befehl, **gehe** von hier aus zwei Schritte nach links, wurde nicht
   nachgekommen

c. **Gehe** von hier aus zwei Schritte nach links!
   'Move two steps to the left from here!'

(40) a. Der   Ausruf,   daß   das Ableben   des   Königs
        the   exclamation   that   the passing-away (of) the king
        eine Freude **sei**,   ist zu unterlassen
        a   joy   be   is to   be suppressed
        'One should abstain from shouting that the death of the king is a reason to be happy'

b. *Der Ausruf, **ist** dás eine Freude, dass der König gestorben ist, ist zu
   unterlassen

c. **Ist** dás eine Freude, daß der König gestorben   ist!
   is thís a   joy   that the king   died   has
   'What good news it is that the king has died!'

(41) a. Der   Wunsch,daß   das   Experiment   doch endlich
        the   wish   that the   experiment   PRT finally
        gelingen **möge**,   blieb   unerfüllt
        succeed may   remained   unfulfilled
        'The desire that the experiment succeed remaind unfulfilled'

b. *Der Wunsch, **möge** das Experiment doch endlich gelingen, blieb unerfüllt

c. **Möge** das Experiment doch endlich gelingen!
   'May the experiment ultimately succeed!'

The verb stays in final position in the a.-sentences. (37a), (40a) and (41a) are introduced by a complementizer, i.e., by an element which is classically seen as occupying the head position into which the finite verb would move, if it were empty. Since the verbal form in (39a) is an infinitive, this may be a sufficient reason to not expect V2 to apply. But what about (38a)? The standard post-GB X'-theory assumes that there is an empty C-position into whose specifier the wh-phrase has been moved. In this case we expect the mechanics of I-to-C movement to apply blindly, but contrary to expectation (38b) is ungrammatical. There may be a stipulation which helps avoiding the problem, but one should be alarmed. The reason is that all the

other examples in the b.-sentences of (37) through (41) tell one and the same message: Suppress I-to-C!

9.1.2 English

Roughly the same seems to be true for English, which also shows the V2-phenomenon albeit in a more restricted form ("residual" V2). The source of the deviant examples in (42) is McCloskey (2002).

(42) a. *I found out how **did** they get into the building
      b. *The police discovered who **had** they beaten up
      c. *How many people **should** you invite depends on how big your place is
      d. *Who your friends are depends on where **did** you live while you were growing up
      e. *I usually know who **might** they hire
      f. *I remember clearly how many people **did** they arrest

Following the initial work by Stephen Wechsler, my hypothesis is that I-to-C endows CP with force features that can only be interpreted, if CP is a root clause. In the post-Barriers tradition, root clauses are normally called "CP", although the head of these clauses is not C. The head is filled with the finite verb or, more exactly, with the finiteness features of the verb which – due to generalized Pied-Piping – force the minimal verb to move along. Thus, it is actually misleading to call such clauses CPs. More important, however, is the question why these features of the verb play such a central role, and why the root clause has the privilege of making them visible. In my view something like the following seems to go in the right direction: The root clause interfaces with the discourse, and as such has to be licensed in a different way than the dependent clause. The most obvious criterion for its distinctness is that it is a potential UT-TERANCE. Embedded clauses are not utterances themselves but may only REFER to utterances. Utterances are pragmatic units which must be anchored in some situational model by which among other things values for speaker, hearer, place and time are provided. At least some of these reference points are reflected in the features of the finite verb which undergoes I-to-C. Among them are tense, person and number features. These features can be anaphorically linked to discourse referents (including time). A case in point is tense anchoring to speech time. Another piece of evidence is the fact that in German imperatives (cf. 39c), the verb can only occur in fronted position.[10] The morphological forms of imperatives are obviously such that their features can find no interpretation unless they head the root clause.

Before I move to a speculation as to the implementation of illocutionary force by V1/V2, I want to turn to apparent counterexamples.

9.2 Apparent exceptions

It is widely known that V2-clauses do appear as dependent clauses. In 9.2.1 and 9.2.2 we present some illustrative examples from German and Hiberno-English.

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[10] According to my knowledge, there is no grammatical expression (outside perhaps poetry) with an imperative finite verb form in clause-final position: ***** *... von hier aus zwei Schritte nach links* **gehe***!*

9.2.1 German

(43) a. Anna glaubt, "Don Pasquale" **sei** die neueste Oper von   John Adams
          Anna believes „Don Pasquale   be the latest   opera by   John Adams
          'Anna believes "Don Pasquale" to be the latest opera by John Adams'
   b. Die Meinung, "Don Pasquale" **sei** die neueste Oper
          the opinion   „Don Pasquale be the lates   opera
          von   John Adams, muss einer Korrektur unterzogen werden
          by   John Adams must a   correction   subjected   be
          "The opinion that Don Pasquale is the latest opera by John Adams must be
          subjected to a correction"

Both V2-complements of (43) are in subjunctive mood. Since root clauses are normally in indicative mood, this indicates that the activation of force may be obviated. Nevertheless, many speakers can also say (43a) – not (43b)! – with the complement in indicative mood. Therefore, subjunctive mood cannot be a reason to dismiss the example from the outset.

Notice further that it has sometimes been claimed that V2 is only possible after bridge verbs, but this would not cover (43b). As de Haan (2001) has shown on the basis of Frisian data, the correlation between bridge verb/extractability and V2 (which in Frisian can arise in the presence of the complementizer *dat*) is not perfect. So we have to ask what the relevant factor is which allows V2-complements.

9.2.2 Hiberno-English

The following Hiberno-English data have been taken from McCloskey (2002). They show a certain liberalism with subject-aux-inversion after the matrix verbs *ask* and *wonder* that is missing in standard English.

(44) a. He asked me **would** I cook dinner
   b. I wonder what **should** we do
   c. I wondered **would** I be offered the same plate for the whole holiday
      Roddy Doyle, The Woman who Walked into Doors, (154)
   d. I wondered **would** the place always look like an abandoned building site *ibd. (192)*
   e. I wondered **was** he illiterate *ibd. (96)*
   f. I asked Jack **was** she in his class   *ibd. (96)*
   g. I am sure she wasn't far from the truth when she asked **was** he thinking of throwing her in   *John McGahern, By the Lake (40)*
   h. I wonder how the fuck **did** he get in there   *Van Morrison, Interview 1977*

Although Standard English, Hiberno-English, Frisian and German show variation in their ability to license V1- or V2-complements, the general truth seems to be that embedded root properties, if they occur at all, are restricted to certain selecting lexical heads which denote a speech event or a propositional attitude.[11] Thus, certain heads of this kind set up a quasi-quotational context in which the force features which are activated by I-to-C movement can still be interpreted. If this conclusion (which I am unable to defend here with the required care) is justified, the embedded root property of V1/V2 is not a counterexample to the claim that I-to-C activates force features, and that force features are normally absent in dependent clauses.

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[11] Interestingly, the selective force of the matrix predicate can operate across an intervening *dat*-complementizer in Frisian; cf. de Haan (2001).

In sections 3 through 8 we have identified three layers of information which are responsible for the formation of a wh-complement: wh, disj, C. The question is now how the clausal architecture is expanded in order to attain force features. If the neutral complementizer C is a pure subordinator, we can ignore it, because the root clause is normally not introduced by C.[12] What about wh and disj? Wh is certainly present in root clauses, and we can assume that it decomposes in analogy to wh in dependent clauses. Root clauses lack a distinctive disj-complementizer like Dutch *of*. So the next conclusion could be that disj comes into play by I-to-C movement. The next section is meant to discourage this expectation.

9.3 Word Order is not Fully Decisive

In this section I want to show on the basis of German data that verb placement and word order in general is not decisive for the encoding of a specific speech act. In the course of this demonstration it will also become clear that it would be unfortunate to associate wh-movement or I-to-C movement directly with the activation of the feature disj.

I will show that a direct correlation between I-to-C and force fails in two directions. We will first show that V1/V2-clauses map onto a multitude of semantic/pragmatic interpretations. We will then show that there are various kinds of root clauses which lack the V1/V2-property altogether.[13]

9.3.1 V1/V2 map onto a multitude of semantic/pragmatic interpretations

(45) contains a number of V1-root clauses with heterogeneous interpretations:

(45) a. V1-interrogative
      Ist das Experiment diesmal gelungen (oder nicht)?
      is the experiment this-time succeeded (*or not*)
      'Has the experiment succeeded this time (or not)?'

      b. V1-conditional
      Würde das Experiment   mißlingen, so wäre   das   keine Katastrophe
      would   the experiment   fail   so would-be   this   no   catastrophe
      'It wouldn't be a desaster, if the experiment would fail'

      c. V1-surprise declarative
      Hat mich   doch gestern   beinahe ein Hund   gebissen
      has me   PRT yesterday   almost a   dog   bitten
      'Yesterday I was almost bitten by a dog'

      d. V1-reason declarative
      Otto ist sorgenfrei   **hat** doch sein   Vater ein riesiges Vermögen
      Otto is   sorrow-free   has   PRT his   father a huge   property
      'His father being enormously rich, Otto does not need to worry'

      e. V1-exclamative
      Ist DAS ein Trottel!
      is this an idiot
      'He is an idiot indeed!'

18

These examples show that whatever V1 does in detail, it cannot be confined to activating the head disj and interrogative force. While disj and interrogative force features could be present in (45a), they would be inappropriate in (45b) where we see a complementizer-less conditional clause, in (45c) which is a declarative with the flavor of a surprise information, (45d) which is a reason clause with root qualities,[14] and (45e) which is an exclamative, an interpretation which is guided by the emphatic stress on the demonstrative pronoun.

Consider next examples with V2-order:

(46)   a. <u>V2-declarative</u>
    John Adams **ist** nicht der Komponist von "Don Pasquale"
    John Adams is not the composer of   "Don Pasquale"

    b. <u>V2-exclamative</u>
    DU **bist** vielleicht ein   Trottel!
    you are perhaps   an   idiot
    'What an idiot you are!'

    c. <u>V2-exclamative</u>
    Du **BIST** vielleicht ein   Trottel!
    you are perhaps   an   idiot
    'What an idiot you are!'

    d. <u>V2-wh-interrogative</u>
    Wer **ist** der   Komponist von   "Don Pasquale"?
    who is the   composer of   "Don Pasquale"

    e. <u>V2-wh-exclamative</u>
    Was **BIST** du   nur   für ein Trottel!
    what are   you only for an idiot
    „What an idiot you are!"

    f. <u>V2-wh-exclamative</u>
    Was **bist** du   nur   für ein TROTTEL!
    what are   you only for an idiot
    „What an idiot you are!"

(46a) is an unmarked declarative. (46b) is an exclamative due to the emphatic stress on the pronoun *du*. The non-declarative interpretation is supported by the adverb (discourse particle) *vielleicht*. If this particle is missing, the interpretation as an exclamative does not vanish but becomes more difficult and obviously relies on the invective *Trottel*. The same is true for (46c), the difference here being that the stress rests on the finite verb which can only be stressed in second position.[15] (46d) is a constituent question with interrogative force. Although (46e) and (46f) follow the wh-format, they have exclamative force. This interpretation is induced by stress on V2 as in (46e) or stress on the invective in (46f). As before, the exclamative interpretation is supported by a particle; in wh-exclamatives the relevant particle is

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[14] Both the surprise and the reason reading disappear when the adversative particle *doch* is missing. Needless to say that the surprise declarative is odd, if the truth of the proposition is already expected by the hearer.
[15] This is an instance of what Höhle (1992) has identified and described as "VERUM-Fokus".

nur (the translation of which with English 'only' is inappropriate here because there is no sense of exclusion involved).[16]

   This list, which may not be exhaustive, shows that V1 and V2 cannot do more than prepare the clause to activate force features.[17] The actual pragmatic interpretation depends on additional factors among which intonation, the use of adverbial particles and to some extent lexical choice play a prominent role.

9.3.2 Root clauses without I-to-C

The examples in (47) show that there are root clauses with illocutionary force in which I-to-C movement is either suppressed or impossible due to the fact that there is a complementizer or a finite verb form is missing altogether.

 (47) a. <u>V-final exclamative</u>
         Was   für ein Trottel du   doch **bist**!
         what for an idiot   you   PRT are
         'What an idiot you are!'

       b. <u>V-final exhortation</u>
         Daß du mir bloß nicht zu   spät   nach Hause**kommst**
         that you me only not   too   late   to   home come
         'Make sure that you don't get home too late'

       c. <u>Infinitival exclamative</u>
         Neapel **sehen**   und   **sterben**!
         Naples   see   and   die

       d. <u>Infinitival command</u>
         Alle mal her**hören**!
         all once listen
         'Everybody listen to me!'

       e. <u>Infinitival command</u>
         Nicht hinaus**lehnen**!
         not   out   lean
         'Don't lean out!'

       f. <u>Infinitival command</u>
         Auf**gepasst**!
         'Attention, please!'

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[16] For details about German exclamatives cf. d'Avis (2001) and Hasegawa (1999) among others.

[17] One of my intuitions is that V1 may have something to do with non-veridicality in the widest sense. With respect to negative polarity licensing, only the interrogative in (45a) and the conditional clause in (45b) would qualify, but in each of the other types which have been introduced here, it seems justified to say that the truth of the proposition expressed is under debate (in a certain way). For extensice discussion of non-veridical contexts cf. Giannakidou (1998).

g. Infinitival command

Wohlauf! noch **getrunken** den   funkelnden Wein!
well   still drunk   the   sparkling   wine
'Now then, finish this sparkling wine!

                         "*Wanderlust", Justinus Kerner*

h. Infinitival wh-interrogative

Wo   hingehen, wenn man alleine   in einer fremden Stadt ist?
where   go   if   one alone   in a   foreign city   is
'Where can one go, if one is alone in a foreign city?'

(47a) shows that wh-clauses can be interpreted as exclamatives even without I-to-C move-ment. Once again there is support by the particle *doch* and the lexical content of the utter-ance.(47b) is an example of an unembedded dependent V-final clause which is introduced by a complementizer. Its source may be a sentence type with an elided matrix. (47c) through (47h) are examples of more or less telegraphic speech with bare infinitives or perfective par-ticipials whose illocutionary force is likely to unfold on the basis of non-syntactic means.

9.4 Conclusion

We started section 9 with the question how illocutionary force enters the architecture of the left periphery. The German data we have considered exhibit a surprisingly diverse, if not con-fusing, picture. We have singled out the process of I-to-C as a key factor by which root clauses acquire force features and, thus, turn into utterances. But although I-to-C seems to have a privileged status in grammars with an articulate left periphery and full or residual V1/V2, there are two important messages that derive from our observations: First, I-to-C can-not be sufficient for the determination of force. It rather ENABLES finite clause types to acti-vate force features on the basis of additional factors not all of which fall into core syntax. Second, there are various cases in which force features can be activated without I-to-C, i.e., there must be shortcuts by which these utterances can be accommodated to the pragmatic sys-tem. In both types we could observed that clause-internal particles such as *doch*, *nur*, *vielleicht* etc. play an important role. Since these particles are not part of the left periphery, the question is how they can help in typing a clause for force.[18]

10. General Conclusion

We have shown that in languages with an articulate left clausal periphery more goes on in syntax and semantics than occasionally meets the eye. The more perspicuous organization of the clause in head-final languages with an agglutinative morphology could be shown to be partially replicated by dialects and other non-standard varieties of Western languages. These varieties provide evidence for a split CP. With respect to question complements, we found a close link between disjunctive (alternative) questions and constituent questions. It could be shown that the postulated syntactic structure is supported by independently developed results in the formal semantics of questions. Syntactic variation in the PF-realization of the CP-system could be traced back to variation in the feature structure of lexical items.

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[18] For an interesting suggestion cf. Hasegawa (1999). Hasegawa suggests that there is clause-internal particle phrase (PrtP) through whose specifier a wh-phrase may move and to whose head the finite verb may adjoin on their way to the left periphery of the clause. In this way, force features can be passed on to the layer of structure in which force seems to be activated.

It was assumed throughout that embedded verb-final clauses lack features of illocutionary force. The question then is how these features enter the clausal architecture. We could isolate I-to-C movement as an important (albeit not the only) factor in accomplishing an underspecified structure through which force features of various types can be activated. Due to a number of different factors which conspire in the determination of force, the picture still looks rather gloomy. It is, in particular, not really clear how the features which play a role in question complements become effective in root clauses with interrogative force. Neither for the fronted finite verb nor for the wh-phrase would it be desirable to associate it directly with disjunctivity and quantification because there are similar but competing clause types whose interpretation is incompatible with these properties.

The general impression is that root clauses leave far more space for semantic and pragmatic interpretation than dependent clauses. Therefore, a research program which aims at a comprehensive account of clause types and their interpretations seems to be well-advised to not shift the entire burden to syntax and instead leave room for underspecified structures and dynamic interpretation.

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