Topics in Zurich German Syntax

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Abstract

The primary aim of this thesis is to present a range of hitherto undiscussed data illustrating syntactic phenomena of Zurich German, with a view to establishing the structure of the Zurich German clause. Zurich German is an Alemannic dialect of German spoken in Switzerland. Like other Swiss dialects of German, it is almost exclusively a spoken language and has no written standard. Its syntax is therefore not subject to normative rules and provides a valuable object of study against the background of standardised German, Dutch, English, and other Germanic languages. The syntactic theory underlying this investigation is Government and Binding Theory. Chapter One presents a brief introduction to the language and previous literature, as well as a discussion of methodological and theoretical aspects. The focus of Chapter Two is on the word order freedom in the middle field (*Mittelfeld*) and on the question of an obligatory subject position. It is argued that there is no strong evidence for functional heads other than COMP and that the middle field is best described in terms of a verb projection only. Chapter Three discusses the distribution of clitic pronouns and concludes that subject clitics are lexical clitics, while object clitics are phonological clitics. Cases of apparent referential null subjects are analysed in terms of silent clitics, i.e. clitics with an unexpressed phonetic form. Chapter Four looks at the properties of the clause-initial position (SpecCP) and the second position (COMP) in root and embedded contexts. "Doubly-filled COMP" is discussed and some of the standard assumptions regarding long movement through SpecCP are questioned. Chapter Five deals with the verbal complex and what has become known as Verb Projection Raising. This chapter proposes a new analysis of the notoriously numerous word order possibilities in infinitival complement constructions in terms of deriving them from a right-branching base structure.

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Chapter 1: Introduction

1. Why Zurich German

In recent years, Swiss German dialects have received considerable attention within generative grammar. Shieber (1985) showed that Zurich German displays constructions with crossed dependencies, as in (1), and he proved that only a non-context-free grammar can generate these.[1,2]

1.   dass mer d Chind em Hans s Huus lönd hälfe aaschtriiche
      that we the kids the H. the house let help   paint
      "that we let the children help Hans paint the house"

The syntax of the Zurich German verb complex in constructions like (1), which is the subject of Chapter 5 of this thesis, also gained widespread attention through work by den Besten & Edmondson (1983) as well as by Haegeman & van Riemsdijk (1986), which established the notion of "Verb Projection Raising" on the basis of Zurich German and West Flemish data. In addition to displaying a considerable amount of word order variation in the verbal complex and in the clause in general, Zurich German is also notable for its use of clitic pronouns and null referential subjects. Null subjects and clitics have been at the centre of syntactic investigations in recent years, and the interaction between the two is explored in Chapter 3. On a more general note, it can be said that recently there has been a surge of interest in dialect syntax and the past few years have seen the emergence of a number of dialect studies.[3] Modern syntactic theory focuses on spoken language, and a dialect is a particularly interesting object of research because it displays none of the

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[1] Regarding the issue of generative power the reader is referred to Pullum & Gazdar (1982) and Shieber (1985). For the same argument for context-freeness based on similar Dutch data, cf. Bresnan et al (1982).

[2] The spelling employed in this thesis is my own, and does not distinguish as many shades of vowels as Dieth (1986), who proposes a standard orthography for all Swiss dialects.

[3] To mention just a few, Haegeman (1992) on West Flemish, Penner & Bader (e.g.1992) on Bernese German, and the papers in Benincà (1989) and Abraham & Bayer (1993).

distortions due to prescriptive norms and can thus be said to provide a more direct insight into the nature of language.[4]

2. What is Zurich German?

Zurich German - "Züritüütsch" to natives, "Zürichdeutsch" to Germans, and henceforth abbreviated as "ZH" - is an Alemannic dialect of German spoken in Zurich and its vicinity, by approximately one million speakers. More precisely, the dialect belongs to the High Alemannic group, which extends into Southern Germany (but does not include Swabian) and Western Austria (Vorarlberg). Apart from the dialect of Basel, which is Low Alemannic, all Swiss German dialects are High Alemannic (Russ 1990).[5] There is considerable variation between the many dialects, but three groups can be distinguished: The Northeast with ZH as its main representative, the Northwest with the dialect of Bern most prominent, and the South with the archaic Highest Alemannic dialects of the remote mountain regions, such as the Walser dialects.[6] The term "Swiss German" refers collectively to all the Low, High and Highest Alemannic dialects within the Swiss borders,[7] but there is no Swiss German as such, i.e. there is no standard dialect spoken by everyone, nor is there a standard written form. The language situation in the Germanic part of Switzerland is diglossic, with Standard German employed for written and more formal purposes, such as national news programmes, speeches in parliament, and lectures, while the dialects are used for everything else. The use of dialect is thus in no way a class indication, as is the case in many other countries (Clyne 1984); it merely reveals the regional origin of the speaker. As mentioned above, the Swiss German dialects are not usually written. There exists however a small "subculture" of dialect literature,

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[4] Cf. Benincà (1989:1): "Dialects are in a sense particularly 'natural' linguistic objects, less exposed as they are to standardization processes or other types of correction of their natural development"

[5] High Alemannic is delimited in the north by the *Kind/Chind* isogloss.

[6] Cf. Comrie & Frauenfelder (1992) on the Walser dialect of Bosco-Gurin.

[7] Alemannic dialects are spoken in all the Swiss German regions, with one exception: The inhabitants of the Samnaun valley in Grisons speak a Bavarian-Austrian dialect, borrowed from the neighbouring Tyrol.

comprising texts by dialect lovers, which are often printed in newspapers, as well as cartoons, comics, and the occasional novel or detective story.

Numerous grammars of various Swiss dialects have been compiled up to now, a tradition begun in 1876, but these works generally miss out the syntax and concentrate on phonology, morphology and the lexicon. In addition, the vocabulary of the Swiss German dialects is recorded in a large ongoing enterprise which started in the 19th century and has become a national institution.[8] A comprehensive but normative grammar of ZH is Weber (1964). There are as yet no generative grammar accounts of ZH which could be compared with the work done on the dialect of Bern by Penner & Bader (e.g.1992). Introductions to ZH including short grammars, can be found in Lötscher (1983), Schobinger (1984) and Russ (1990). The interested reader is referred to these titles for details on phonology, lexicon and morphology. Here I will confine myself to mentioning a few grammatical characteristics of ZH:

ZH displays a simple case system with a main distinction between Nominative and Dative. Accusative is only distinguished in the pronominal system, and there is no Genitive.[9] The tense system is also simpler than in German, as it consists only of a Present and a Perfect tense. The Past tense has disappeared (traces of it can be found in the very common and productive Subjunctive) and the Future tense never existed. The Past Perfect (Pluperfect) is expressed by means of a double Perfect.[10] Relative clauses are introduced by an invariant relative marker *wo* "where".[11] Also characteristic is the use of definite determiners with proper names, which is also common in other German

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[8] *Schweizerisches Idiotikon. Wörterbuch der schweizerdeutschen Sprache.* Cf. Haas (1981).
[9] Some of the Highest Alemannic dialects still have a Genitive (e.g. Oberwallis dialect) and the dialect of Bern, in common with more conservative Swiss dialects, still has the Saxon Genitive with proper names, which is conspicuously lacking in ZH. Instead, ZH employs two circumlocutions:

(i) em Peter sis Auto   OR   (ii) s Auto vom Peter
     the$_{DAT}$ Peter his car   the car of the Peter
     "Peter's car"   "Peter's car"

[10] E.g.

(i) Mir sind ggange gsii   (ii) Mir händ s gsee ghaa
    we are gone been   we have it seen had
    "We had been gone"   "We had seen it"

[11] Cf. van Riemsdijk (1989b), Szakacs (1988), and for the dialect of Bern Bader (1990).

dialects. Word order properties and further syntactic peculiarities are discussed in more detail in the main text of this thesis.

3. Methodological considerations

The data presented in this thesis are largely based on my own native speaker intuition.[12] At times they are complemented with constructions heard in conversations, on the radio, or found in the literature mentioned above. In most cases, the sentences have been checked repeatedly with other native speakers, and often questionnaires have been used. As most people are not used to reading ZH, the data had to be presented orally. It has at times been difficult to evaluate the results of such interviews and I will briefly address some of the problems encountered in my fieldwork.

At first I took it to be important whether an informant had spent all his life in the Zurich area and had parents who spoke ZH, to guarantee a "pure" dialect. Then I began to find considerable variation even among such speakers. I realised that exposure to other Swiss dialects is impossible to avoid. A wide range of dialects can be heard daily on radio and television, and most people have speakers of other dialects among their friends and relatives. As the largest city of Switzerland, Zurich attracts more immigrants from other parts of the country than for instance Bern, and that this together with the influence of Standard German makes an impact on ZH.[13] It is straightforward to distinguish a ZH speaker from other Swiss Germans by listening to his pronunciation. But where syntax is concerned the notion of a "pure" dialect has become meaningless. It is particularly noticeable in the syntax of the verbal complex that modern ZH has absorbed syntactic features of both dialects to the East (e.g. St.Gallen), and to the West (Bern, Aargau).[14]

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[12] I was born and brought up in urban Zurich and lived in the city until age 26.

[13] Keller (1961:34) has this to say of ZH: "[...] owing to the cosmopolitan and urban melting pot character of its centre, the city of Zürich, this dialect is today more threatened by linguistic erosion through dialect mixture and influence of Standard German than most other dialects."

[14] Older studies showed that the boundary for the analytic/synthetic distinctions in constructions like (i) runs across the region of Zurich (Wolfensberger 1967). This explains why both (a) and (b) are today part of (at least) the city dialect.

(i) a. Er hät wele choo   analytic, West of Switzerland

It is difficult to establish which constructions speakers will tolerate on hearing, but would never use themselves. Some informants are adamant they never use a particular construction, then proceed to use it inadvertently. The opposite case, where a construction is claimed to be used, but never actually gets used, can of course not be tested. A further problem, which appears to be typical of spoken languages without written standards, is the degree of uncertainty displayed by informants when judging data. A not uncommon reaction is to refer the investigator to someone else who "speaks the dialect better". This reaction reflects the fact that most people seem to be totally unaccustomed to thinking about ZH grammar. The absence of an explicit grammar and the fact that speakers do not reflect on the grammar of their dialect because they neither read nor write it - at most they will comment on lexical oddities or differences in pronunciation - produces a language situation characterised by a great degree of "linguistic innocence". It is remarkable and deplorable that the Swiss dialects are never treated as objects of study at school. Primary school education uses the dialect initially as medium of instruction, but children are then only taught to read and write German, and soon German takes over as the language employed in the classroom, at least for formal subjects. Swiss Germans thus often do not attribute the same importance to their dialect as to German and other languages, and they may even consider it inferior and "not a proper language". This linguistically naive attitude to one's own mother tongue is perhaps comparable to what can be found in illiterate societies, or in the child before formal education begins. For linguistic investigations, the situation sketched above provides a particularly attractive research ground, because the linguist is faced with natural data which is not subject to prescriptive grammar or standardisation efforts. Nor can the printed media exert an influence in terms of stylistic fashion, except perhaps indirectly via German.

Eliciting data from native speakers is a hard enough task, but extracting grammaticality judgements is a much more difficult and somewhat dubious

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he has wanted come
b. Er hät choo wele   synthetic, East of Switzerland
he has come wanted

enterprise. It requires a certain amount of "training" of the informant, as the distinction between "grammatical" and "ungrammatical" has to be conveyed to linguistically naive speakers, although even linguists seem to be unsure at times about this distinction. Since grammaticality judgements are absolutely central in this thesis and in most cases the data cannot be compared with data presented elsewhere, it is necessary to make clear how I understand this issue.

4. On grammaticality

Whether a sentence is grammatical or not may depend on the stage of linguistic history. In *Syntactic Structures*, Chomsky noted that sentences (2) and (3) are equally nonsensical, but that only (2) is grammatical (Chomsky 1957:13f):

2.   Colorless green ideas sleep furiously

3.   Furiously sleep ideas green colorless

Eight years later Chomsky (1965:148f.,227) treats (2) as ungrammatical. This is because the grammatical model has changed, and a sentence like (2) is not blocked by selectional rules.[15] Today, most generativists would again have the grammar generate the sentence and let the semantic component account for its oddity (cf. Newmeyer 1983:58). And Chomsky himself later implies that (2) is grammatical, although "it does not rank highest in the degree of grammaticalness" (Chomsky 1979:175). "Degree of grammaticalness" is an odd concept, particularly when applied to grammatical sentences. It is easy to see how a sentence can be very ungrammatical, e.g. if there are several reasons for the grammar not to generate it, but it is not easy to grasp what a slightly grammatical or very grammatical .sentence would have to look like, but cf.

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[15] Chomsky (1965:227) suggests that sentences which do not deviate at all are "generated directly" by the grammar, whereas sentences like (2) are "generated derivatively". The structural descriptions associated with the sentences will then indicate the manner and degree of deviance. It is not clear to me what "generated derivatively" means, but it would seem to contradict the usual assumption that the grammar generates all and only grammatical sentences.

below for further discussion. A straightforward characterisation of "grammatical" is given by Brown & Miller (1980:45): "The grammar also produces a definition of what is meant by a grammatical sentence: a sentence that our grammar generates is, by definition, a grammatical sentence." There is thus no need to talk of degrees of grammaticality. Either the sentence is "in" or "out". Degrees would seem to be more appropriate when speaking of acceptability. It is important to recognise that a distinction is made between "grammatical" and "acceptable". "Acceptable" is a pre-scientific term, and is more primitive than "grammatical" in the sense that it does not depend on theoretical concepts of linguists (Lyons 1968:137). It is used to characterise the native speaker's intuitions about the linguistic data. "The native speaker who judges a sentence cannot decide whether it is grammatical. He only has intuitions about acceptability. It is for the linguist to determine whether the unacceptability of a sentence is due to grammatical principles or whether it may be due to other factors." (Haegeman 1994:7) A sentence may be unacceptable "for reasons having to do, not with grammar, but rather with memory limitations, intonational and stylistic factors, "iconic" elements of discourse (for example, a tendency to place a logical subject and object early rather than late), and so on." (Chomsky 1965:11). Chomsky himself considers (4a) as less acceptable than (4b), and Haegeman (1994:7) gives (5) as an example of a grammatical but not acceptable sentence:

4.   a. I called up the man who wrote the book that you told me about
        b. I called the man who wrote the book that you told me about up

5.   Once that [that Bill had left] was clear, we gave up

With respect to (5), Haegeman notes that it is up to the linguist to decide whether the grammar should be modified so as to rule (5) out, or whether the sentence should be ruled out for independent reasons, such as processing reasons. The linguist decides how to set up the grammar which in turn determines which sentences are grammatical - but the data collected by the linguist must be classified as grammatical or ungrammatical before grammar writing can even begin. The suspicion of circularity is not altogether unfounded.

It is quite possible, then, that two linguists have opposing views on whether a sentence is grammatical or not, and this need not have anything to do with how they judge this sentence. Rather, their grammars (or their ideas of a grammar) may diverge with respect to whether this particular sentence should be generated or not. One example of such a divergence will be discussed in Chapter 2 in the context of word order variation in the middle field. It concerns the role of focus (stress). My view is that a sentence should not be ruled out by the syntax merely because it requires a particular intonation (and as we saw above, Chomsky regards intonational factors as extragrammatical).[16] Other linguists have suggested that we consider sentences with "normal" or "unmarked" intonation only. Such a reductionist approach strikes me as too restrictive. If it is complemented by a procedure which generates those sentences with special intonation we effectively end up with a system with two syntaxes. I believe that the syntax should generate all grammatical sentences at once, and further components of the grammar can deal with intonation among other things.

A few more words are necessary about degrees of grammaticality. When Chomsky in his early writings talks of degrees of grammaticality he refers to differences between sentences as in (6), where (a) is more grammatical than (b) which in turn is more grammatical than (c) (cf. Chomsky 1957:78).[17]

6.   a. John admires sincerity
       b. sincerity admires John
       c. sincerity admires eat

There is a clear sense, as Chomsky says, in which these sentences can be distinguished in terms of grammaticality, on a purely intuitive basis. In recent years, though, degrees of grammaticality have come to be used particularly in dealing with extraction data, which are notoriously hard to judge. To illustrate

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[16] What is true of prosody extends to semantic and pragmatic factors: "Often, a sentence isn't "wrong", but "unusual", or "funny". Typically, "funny" sentences violate semantic or pragmatic constraints, rather than a syntactic constraint." (Grace Fielder, University of Arizona, on the Linguist List, June 28, 1994)

[17] Cf. also Chomsky (1955/75:131) where sentences like (6a), (6b) and (6c) are termed "fully grammatical", "partially grammatical" and "totally ungrammatical" respectively.

the problem, consider the following data and judgements from Fanselow (1987:58ff):

7. a. **Linguisten weiss ich nicht was reparieren
       linguists know I not what repair

   b. * Was haben dir für Leute geholfen?
      what have you for people helped
      "What kind of people have helped you?"

   c. ???Was haben dir für Menschen ein Buch geschenkt?
      what have you for people   a book given
      "What kind of people have given you a book?"

   d. ?Was glaubt Hans, dass Fritz gestohlen hat?
      what thinks Hans that Fritz stolen   has
      "What does Hans think Fritz has stolen?"

   e. **Wer glaubt Hans, dass das Auto gestohlen hat?
      who thinks Hans that the car   stolen has
      "Who does Hans think (that) has stolen the car?"

A few years later Fanselow (1993:6) writes that contrary to the view in Fanselow (1987), no subject-object-asymmetries can be recognised in German extraction data.[18] Extractions out of wh-islands as in (7a) continue to be ungrammatical, but others, such as (7e) are now widely accepted in the linguistic literature. Whether this has to do with the development of the theory and in particular with the distinction between ECP-violations (which are supposed to be bad) and subjacency violations (which are not quite so bad), or whether it is due to familiarisation and habituation remains open to speculation.[19]

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[18] "Tatsache ist wohl, dass entgegen der Sichtweise in Fanselow (1987) keine erkennbare Subjekt-Objekt-Asymmetrien bezüglich der Extrahierbarkeit im Deutschen vorliegen."
[19] The latter suggestion is based on the observation that grammaticality judgements always change from "bad" to "good", never the other way round.

5. Aims of this thesis

The primary intention of this thesis is to make a wide range of ZH data available to the linguistic community, in a fashion which is accessible to adherents of different theoretical frameworks. The syntactic framework underlying this thesis is Government and Binding Theory (GB). However, the emphasis is on the data and not on theory-internal technical details. GB has undergone so many changes in recent years and continues to be subject to radical change (cf. Chomsky 1994) that it seems futile to base an investigation of novel data on such a fast-moving body of assumptions. GB was chosen as a background partly because some of the syntactically most explicit work on Germanic is written in this framework, and also because Chomsky's notion of Universal Grammar provides a motivation to compare languages which is far more challenging and exciting than that of more descriptive or computationally-oriented frameworks. Variation in syntactic structure is predicted to throw light on the structure of language in general, and ultimately contribute to Universal Grammar in terms of principles and parameters. If there is little mention of principles and parameters in this thesis, it is because we are still a far way off formulating anything definitive. Instead, this thesis starts from scratch and tries to establish what the clause structure of ZH looks like. In the process, some standard assumptions are questioned and dismissed. I should make clear at this point that I do not take Universal Grammar to mean that all languages necessarily display the same clause structure. If Universal Grammar has any meaning in cognitive terms, it is bound to be at a rather more abstract level than tree diagrams. If constituent structures exist, and there is no shortage of evidence in favour of them, it may nevertheless turn out that they are less rigid than hitherto assumed and perhaps not present to the same extent in all constructions. Word order variation in ZH suggests that the syntax is more flexible than can be expressed by the X'-scheme. It also appears that there are a number of word order phenomena which are rather "surfacy", such as inversion of two adjacent elements without any resulting change in meaning. These contrast with inversion phenomena which have a clear function, such as inversion of the finite verb with an adjacent constituent to produce a question (cf. *es schneit* "it snows" - *schneit es?*). In GB the latter phenomena are not analysed in terms of inversion (anymore), partly because

binary tree structures make it impossible to invert adjacent elements. If structural assumptions were modified, a mechanism like inversion might find a place at all levels of description.

Chapter 2: The structure of the middle field

1. Introduction

This chapter deals with the "middle field" (*Mittelfeld*) of the clause and the linear order and syntactic structure found therein. The term "middle field" - taken from the German tradition of descriptive grammar which employs a topological sentence model (cf. Reis 1980) - is best illustrated by a subordinate clause such as (1):

1. dass d Neffe em Donald e Torte gmacht händ
    that the nephews the$_{DAT}$ Donald a cake made have
    "that the nephews made Donald a cake"

The complementiser *dass* and the verb group *gmacht händ* together form the "sentence bracket" (*Satzklammer*). The material in between is referred to as the middle field. In main clauses the finite verb occupies the left slot of the sentence bracket and marks the left edge of the middle field. In declarative clauses a further constituent is found to the left of the finite verb, yielding V2 (verb second) order, as in (2):

2. Zum Geburtstag händ d Neffe em Donald e Torte gmacht
    tothe birthday   have the nephews the$_{DAT}$ Donald a cake made
    "The nephews made Donald a cake for his birthday"

Like German, ZH displays a considerable word order freedom in the middle field. Given a simple clause with three argument NPs in the middle field, all six permutations in (3) are grammatical:

3.   a. dass d Neffe em Donald die Torte gmacht händ
           that the nephews the Donald this cake made have
        b. dass em Donald d Neffe die Torte gmacht händ
        c. dass die Torte d Neffe em Donald gmacht händ
        d. dass d Neffe die Torte em Donald gmacht händ
        e. dass em Donald die Torte d Neffe gmacht händ
        f. dass die Torte em Donald d Neffe gmacht händ

The data in (3) suggest that the ZH middle field is best characterised by a flat structure like (4a). Parallel data in German have given rise to the idea that German is a free word order or non-configurational language. Standard theorising in the GB paradigm since Chomsky (1986), however, assumes that German clause structure must be something like (4b). Whether the middle field should be assigned a hierarchical structure like (4b) or not has been the subject of the configurationality debate among German syntacticians in the past fifteen years or so.

4.   (a)
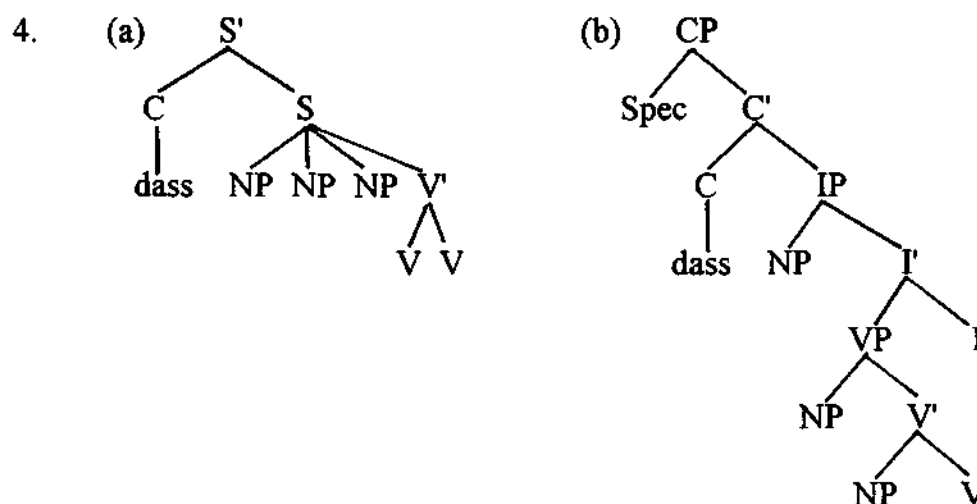
The structure (4a) is intended to leave the order of the three NPs free, whereas the verbal complex V' is confined to the final position. In (4b), the SpecIP position is standardly reserved for the subject, while the two object arguments are generated in a particular order within the VP, with the DO adjacent to the verb. (4b) thus imposes a linearisation on the arguments in the middle field such that it matches only the order in (3a). All other permutations must be derived by means of movement. Such an approach assigns a kind of primacy to the linearisation in (3a), and leads us to expect syntactic differences between (3a) and the other five permutations. The notion of configurationality and criteria of configurationality will be discussed in section 3 of this chapter. For the discussion in section 2 it is sufficient to bear in mind that a configurational approach to German and Zurich German includes the assumption of a VP and a VP-external subject position. This is what most discussions of German clause structure imply (cf. Fanselow 1987). The question I want to address

first of all is whether the linearisation possibilities of arguments in the ZH middle field call for an asymmetric structure as in (4b), or whether the data are more suggestive of a flat structure along the lines of (4a).

2. Linearisation of arguments

The order variation illustrated in (3) is strictly speaking not an example of free word order but rather of constituent order. There is no order freedom within each constituent, i.e. within each of the three argument NPs. Nevertheless, the term "word order" will be used interchangeably with "constituent order", as is common practice. Free word order is often attributed to the richness of the case system (cf. (4a)). It is said, for instance, that German has a rich morphological case system, whereas Dutch has lost morphological case (except in the pronominal system), and with it much of free argument order. ZH argument order should be revealing in comparison with Dutch and German, as the ZH case system lies somewhere between these two languages. ZH displays fewer morphological case distinctions than German, and yet, as will be shown, there seems to be the same freedom of order. This suggests that there is no simple correlation between morphological case and word order, as is also evidenced by Icelandic, a language with a rich case system but little order flexibility. These facts point to structural differences between languages which are (also) responsible for linearisation, and these will be examined more closely in section 3. Section 2 concentrates on linearisation constraints.

2.1. Case and ambiguities

In the ZH nominal system the only case distinction made is that between a Common case (Keller 1961), comprising the functions of Nominative and Accusative, on the one hand, and the Dative case on the other. The Dative (plus prepositions) has taken over the function of the Genitive. Table (5) presents the NP case system of ZH:

5.

	masculine	singular feminine	neuter	plural all genders
definite				
Common	de Hund	d Chatz	s Chind	d Hünd
Dative	em Hund	de Chatz	em Chind	de Hünd

indefinite				
Common	en Hund	e Chatz	es Chind	Hünd
Dative	emene Hund	ere Chatz	emene Chind	Hünd

Even in German, the Accusative case is often not different from the Nominative, as only the masculine singular paradigm has a distinct inflection. Thus a German sentence like (6) is theoretically ambiguous (I write "theoretically" because I believe that the actual context makes clear which reading is intended):

6. Die Tochter hat die Mutter geküsst
   the daughter has the mother kissed
   i."The daughter kissed the mother"
   ii. "The daughter, the mother kissed"

It is sometimes claimed, for instance by Travis (1984), that (6) can only get the SVO-reading (i).[1] Lenerz (1977:103f) observes that an example like (6) is ambiguous, and that it can receive either reading for all stress assignments. Höhle (1982:128ff) regards it as problematic to give examples like (6) the SVO-reading only, since the topological rules allow German sentences like (7), where the initial object NP is unambiguously marked for the Accusative:

7. Den Mann hat die Mutter geküsst
   the$_{ACC}$ man has the mother kissed
   "The man, the mother kissed"

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[1] This view possibly goes back to Chomsky (1965:126): "[..] even richly inflected languages do not seem to tolerate reordering when it leads to ambiguity. Thus, in a German sentence such as "Die Mutter sieht die Tochter", in which the inflections do not suffice to indicate grammatical function, it seems that the interpretation will invariably be that "Die Mutter" is the Subject (unless it has contrastive Stress, in which case it may be taken to be the Subject or the Object)."

In ZH, though, there is no Accusative case on NPs, and yet the equivalents of German (6) and (7) are ambiguous (8a/b). Even the interrogative pronoun *wer*, "who", is ambiguous between subject and object function (8c). Only the personal pronouns include a few forms which are unambiguously Accusative, e.g. the ones in (8d) (other pronouns are either ambiguous between Nominative and Accusative (such as *si* "she") or between Accusative and Dative (*ois* "us", *oi* "you"):

8.   a. D Tochter hät d Muetter küsst
       the daughter has the mother kissed
       i. "The daughter kissed the mother"
       ii. "The daughter, the mother kissed"

    b. De Maa hät d Muetter küsst
       the man has the mother kissed
       i. "The man kissed the mother"
       ii. "The man, the mother kissed"

    c. Wer hät d Muetter küsst?
       who has the mother kissed
       i. "Who kissed the mother?"
       ii. "Who did the mother kiss?"

    d. Ihn/mich/dich hät d Muetter küsst
       him/me/you has the mother kissed
       "Him/me/you, the mother kissed"

Assuming Höhle's point of view, it could be argued that ZH allows (8a/b/c) to be ambiguous because of the possibility of (8d). Consider example (9), which is taken from Schobinger (1986:7), a crime story written in ZH. In the absence of any grammatical clues as to who the subject is, it is only just clear from the preceding context, in which everybody present is listed with respect to whether Ääschme and Rütimaa know them, that these two figure as the subject:

9.   Di andere junge Lüüt käned der Ääschme und de Rütimaa nöd
    the other young people know the Ä.   and the R.   not
    "The other young people, Ääschme and Rüütimaa don't know"

The fact that sentences like (9) can indeed receive an OVS-reading may be due to the availability of one morphological object case, the Dative. Examples with a Nominative and a Dative argument are unambiguous, as (10) shows:

10.   De Tochter hät d Muetter ghulfe
       the$_{DAT}$ daughter has the mother helped
       "The daughter, the mother helped"

The prediction would then be that Nominative/Accusative ambiguities are excluded in a language if there is no overt Dative case marking in the NP system - and this seems to be confirmed by Dutch. Such a distinction sets the subject in opposition to both the direct and the indirect object.[2] In other words, we have a first indication that the subject is set apart in some way.

The examples considered so far all involve V2 structures where one of the arguments occupies the clause-initial position. Fronting an adverb results in clauses with all arguments in the middle field, as in (11a), comparable to a subordinate clause (11b):

11.   a. Dänn hät d Tochter d Muetter küsst
          then has the daughter the mother kissed

       b. Ich glaub dass d Tochter d Muetter küsst hät
          I believe that the daughter the mother kissed has

It seems to be somewhat harder[3] to get the OS-reading in (11) than in (8a), but this reading is available. Otherwise it would be unclear how examples like (12) would be allowed, where the verb inflection has a disambiguating effect:

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[2] Trivial as this may sound, it contrasts of course with the situation in ergative languages, where the subject of an intransitive verb patterns with the object of a transitive verb.

[3] Cf. also Höhle (1982:128) who notes with respect to German that the situation in the middle field is slightly different from examples like (6) above. Some speakers seem to consider (i) ambiguous, while others only get the SO-reading, a fact he attributes to idiolectal differences:
(i) weil die Frau ein Mädchen gebissen hat
    because the woman a girl bitten has

12.   a. Dänn händ s Geburtstagschind ali umarmt
           then have the birthdaychild all   hugged
           "Then, everybody hugged the birthday child"

        b. Ich glaub dass s Geburtstagschind ali umarmt händ
           I believe that the birthdaychild   all hugged have
           "I think that everybody hugged the birthday child"

The following two examples, which are only disambiguated by the non-linguistic context, have been recorded in conversation:

13.   Es isch klar, dass die Chatz de Hund nöd jagt (wil er si kännt)
        it   is clear that this cat the dog not chases (because he her knows)
        "It is clear that this cat, the dog doesn't chase (because he knows it)"

14.   Er meint, dass d Maischölbe d Müüs gfrässe händ
        he thinks that the corn cobs the mice eaten   have
        "He thinks that the corn cobs, the mice have eaten"

As for (14), it is perhaps obvious that mice eat corn cobs and not vice versa, but it would be quite easy to dream up a context in which this other reading makes sense - for instance a board game in which each player is represented by a number of figures of one kind such as mice, corn cobs, mushrooms, pigs and the like. Interestingly, this other reading, which requires a highly restricted context, is the one that comes to mind first in (15), where the second argument is indefinite:

15.   Er meint dass d Maischölbe Müüs gfrässe händ
        he thinks that the corn cobs mice   eaten have
        "He thinks that the corn cobs have eaten mice"

Clearly, the serialisation of arguments in the middle field is not only influenced by grammatical function but also by factors like definiteness. In what follows, several accounts of linearisation regularities from the literature on German syntax will be discussed and evaluated with respect to their application to ZH.

2.2. Lenerz (1977)

Lenerz (1977) begins his account of German constituent order in the middle field with a definition of marked and unmarked order: If two constituents A and B can occur in the order AB as well as BA, and if BA can only be used under certain testable conditions to which AB is not subject, then AB is the unmarked order and BA is the marked order. Sentences with "non-normal intonation", i.e. with emphatic or contrastive intonation, are disregarded. He thus arrives at the following generalisations with respect to the unmarked middle field order of German, where PO stands for prepositional object:

16.   a. non-pronominal arguments: S - IO - DO - PO
       b. pronominal arguments: S - DO - IO - PO
       c. +/-pronominal arguments: +pron. NP/PP - -pron. NP/PP

His notion of unmarked order is thus expressed in terms of structural properties of arguments, viz. grammatical category and the feature +/-pronominal. Lenerz then formulates five pragmatic conditions which operate on the pairs S/OBJ, IO/DO, and DO/PO:

17.   a. Theme/Rheme Condition: the theme tends to precede the rheme
       b. Definiteness Condition: definite tends to precede indefinite
       c. Law of Growing Constituents (*Gesetz der wachsenden Glieder*,
          following Behaghel 1932): heavier constituents tend to follow
          lighter ones
       d. Sentence Bracket Condition: the tendency, not to end a sentence on a
          light constituent if the sentence bracket is open, i.e. if the clause does
          not end with a verb
       e. Subject/Agent Condition: subject/agent tends to precede other
          constituents

Equating DO with Accusative and IO with Dative, Lenerz proposes that the unmarked order is NOM-DAT-ACC, unless any of the pragmatic effects in (17) override this regularity. Theme and rheme are identified by means of a question test. The theme is defined as what we talk about, what is given, while the rheme refers to what is said about the theme, what is new. Applying the theme/rheme condition to ZH, Lenerz' system predicts that the unmarked order

IO - DO is fine regardless of theme/rheme structure, hence both (18a) and (18b) are good answers to a question involving a DO-theme. The order DO - IO, however, should only be possible when the DO is thematic, i.e. when the theme before rheme condition overrides the unmarked order. (19b) should be markedly worse, as it displays DO - IO and rheme - theme order.

18.   Wem hät er s Gäld gchlaut?
        who$_{DAT}$ has he the money stolen

         a. Er hät em Peter s Gäld gchlaut
           he has the$_{DAT}$ P. the money stolen

         b. Er hät s Gäld em$_{DAT}$ Peter gchlaut

19.   Was hät er em Peter gchlaut?
        what has he the$_{DAT}$ P. stolen

         a. Er hät em Peter s Gäld gchlaut
           he has the$_{DAT}$ P. the money stolen

         b. Er hät s Gäld em Peter gchlaut

Contrary to expectation, (19b) is perfectly acceptable. Lenerz excludes contrastive emphasis, implying that the German equivalent of (19b) would be acceptable with a contrastive interpretation of the DO. However, it is perfectly possible to stress any one constituent in (19b). Both (19a) and (19b) can serve as answers to a question like "What has happened?". For ZH, the theme/rheme condition seems to be irrelevant. As for German, Reis (1987:167) similarly concludes that the influence of the theme/rheme structure is minimal, as an expanded example like (20) shows. Lenerz' condition would predict (20b) to be distinctly worse than (20a), given that DO - IO is the marked order and rheme precedes theme, but Reis notes no such contrast:

20.   Was hat Karl hinsichtlich des Kindes getan?
        what has K.with respect to the child done

         a. Karl hat dem Kind das Buch für seine TANTe gegeben
           K. has the$_{DAT}$ child the book for his aunt   given

b. Karl hat das Buch dem Kind für seine TANTe gegeben

The definiteness condition is illustrated by the ZH data in (21) and (22). In (21), the DO is definite throughout, while the IO is definite in (a/b) and indefinite in (c/d); all variations are well-formed:

21.   Wem hät er s Buech gchlaut?
       who$_{DAT}$ has he the book stolen

    a. Er hät em Profässer s Buech gchlaut
       he has the$_{DAT}$ prof the book stolen

    b. Er hät s Buech em Profässer gchlaut

    c. Er hät emene Profässer s Buech gchlaut
       he has a$_{DAT}$ prof   the book stolen

    d. Er hät s Buech emene Profässer gchlaut

In (22), the DO is indefinite throughout and the two variations with DO-IO order (22b/d) are predicted to be less acceptable, since DO-IO is the marked order and the definiteness condition ("definite precedes indefinite") cannot apply to override the normal order constraint. Lenerz considers the German equivalents of (22b/d) ungrammatical.

22.   Wem hät er es Buech gchlaut?
     · who$_{DAT}$ has he a book stolen

    a. Er hät em Profässer es Buech gchlaut
       he has the$_{DAT}$ prof a book stolen

    b.?Er hät es Buech em Profässer gchlaut

    c. Er hät emene Profässer es Buech gchlaut
       he has a$_{DAT}$ prof   a book stolen

    d.?Er hät es Buech emene Profässer gchlaut

The ZH data show that there is indeed a tendency to place a definite argument before an indefinite one, all else being equal, but this remains only a slight tendency and does not have the status of a grammatical constraint.

The law of growing constituents is hardly a law, not even a condition, but merely a tendency, in German as well as in ZH. Violation does not result in ungrammaticality, but merely in diminished stylistic acceptability. (23) contains a heavy IO, which tends to be postposed as in (a), thus overriding the normal order IO-DO:

23.   a. Er hät s Gäld em Fründ wo geschter uf Bsuech choo isch gchlaut
        he has the money the$_{DAT}$ friend REL yesterday on visit come is stolen
            "He stole the money from the friend who came for a visit yesterday"

        b. Er hät em Fründ wo geschter uf Bsuech choo isch s Gäld gchlaut

(23b) is only slightly less acceptable than (23a). The effect becomes stronger if a violation of the sentence bracket condition is added, which taken on its own is only a weak stylistic tendency. Consider (24a), where there is no verb to close the bracket at the right edge, and (24b) which is stylistically preferable:

24.   a. Er chlaut em Fründ wo regelmässig uf Bsuech chunnt s Gäld
        he steals the$_{DAT}$ friend REL regularly on visit comes the money
            "He steals the money from the friend who comes regularly for a visit"

        b. Er chlaut s Gäld em Fründ wo regelmässig uf Bsuech chunnt

The subject/agent condition, finally, requires that the order subject - object may only be inverted if the object can be considered the "communicative centre" (*Mitteilungszentrum*). This notion is different from the notion of theme, because the theme for all verbs can be either subject or object, whereas the communicative centre for some verbs may be restricted to the subject. The German verb *gefallen*, "please", for instance, allows subject or object to be the communicative centre, whereas with *mögen*, "like", only the subject qualifies. In ZH I perceive no significant grammaticality contrast between (26a) and (26b), although (26a) can be said to be the preferred order,:

25.   a. Ich glaub dass de Chind de Hund gfallt
          I think   that the$_{DAT}$ kids the dog pleases

       b. Ich glaub dass de Hund de Chind gfallt

26.   a. Ich glaub dass d Chind de Hund möged
          I think that the kids the   dog   like

       b.?Ich glaub dass de Hund d Chind möged

The notion of a communicative centre is connected with the concept of an agent. If the subject is clearly agentive the object cannot be the communicative centre. Psych-verbs like *gfale* "please" typically have non-agentive subjects, which explains why both orders in (25) are equally acceptable. The relevance of agentivity is also meant to explain why subject-object inversion is particularly easy with *niemert*, "nobody", as "nobody" refers to the non-existence of an agent, hence the alternation in (27). As for (28), Lenerz judges the German equivalent of (28b) ungrammatical. Again, the ZH example is perfectly acceptable, without any "non-normal" stress assignment.

27.   a. Ich glaub dass niemert die Hütte chauffe wird
          I think that nobody this hut   buy   will

       b. Ich glaub dass die Hütte niemert chauffe wird

28.   a. Ich glaub dass de Donald die Hütte chauffe wird
          I think that the D.   this hut   buy   will

       b. Ich glaub dass die Hütte de Donald chauffe wird

We can conclude that the five pragmatic conditions formulated by Lenerz for German do not carry over to ZH in any interesting way. The theme/rheme condition seems to be irrelevant. The definiteness condition could be said to be merely a tendency. The subject/agent condition does not apply in a reliable manner (cf. (26) and (28). Finally, the law of growing constituents and the sentence bracket condition are mere stylistic tendencies, and not relevant to a formulation of grammatical constraints. It can also be concluded that the unmarked order Lenerz employs for non-pronominal arguments, viz. S - IO -

DO - PO, is not valid for ZH, and that the notion of a "normal" order must be open to scrutiny. In particular, Lenerz' assumption that an investigation of word order regularities can abstract away from intonation is highly debatable. This brings us to a paper by Höhle (1982), which investigates the role of intonation with respect to word order. The order of non-pronominal arguments, for which Lenerz posits an unmarked S -DO -IO order, will be discussed in section 2.6.

2.3. Höhle (1982)

Höhle sets out to clarify the notions of "stylistically normal order" and "stylistically normal intonation". He takes these notions to be pragmatic and context-dependent, and he emphasises that both "normal" and "non-normal" orders are grammatical and must be distinguished from ungrammatical orders. Whereas Lenerz only considers sentences with normal order to be grammatical, Höhle takes emphatic and contrastive stress into account and thus considers a much wider set of data. The underlying assumption is that it is the grammar's task to produce all well-formed, grammatical sentences. What kind of intonation can be assigned to each sentence is a grammar-external matter, as it depends on the wider context in which the sentence is uttered. If the data to be accounted for is reduced by applying criteria like normal intonation, the resulting generalisations may be simpler, but it is totally unclear how sentences with non-normal intonation should then be generated. Relegating them to a pragmatic component is no solution: if the grammar has already ruled them out they would have to be generated by an extra grammar confined to non-normal intonation. It is clearly more plausible to generate all well-formed strings at the beginning, and then let a pragmatic component decide which strings are intonationally marked and why. Normal intonation is seen as an essentially pragmatic concept. Such a view helps to explain what makes an intonation normal, viz. the fact that it is contextually least restricted.

Höhle introduces the term "focus potential" as the crucial notion in determining normal word order. Focus potential is connected to a stressed constituent of a particular type in a particular lexically specified sentence constellation with a particular word order. How many possible foci can be

associated with a sentence is a property of its focus potential. Hence, in the ZH example (29) any constituent can be focused, in other words, (29) can serve as an answer to any of the questions (a-f):

29.   Ich glaub dass de Daniel die Erfindig em Patäntamt gschickt hät
       I believe that the D.   this invention the$_{DAT}$ patent office sent has

       a. What has happened?
       b. What has Daniel done?
       c. What has Daniel done with this invention?
       d. What has Daniel done with respect to the patent office?
       e. What has been done with respect to this invention?
       f. What has been done with respect to this invention and the pat. off.?
          etc.

(29) can thus be said to have normal word order because it has the maximum possible foci. This concept is sentence-grammatical in nature and does not refer to actual utterances, as it is based on possible foci and not on actual ones. This short discussion shows how the notions of normal intonation and normal word order can be based on the notion of focus and thus on context type; the more possible foci a sentence has, the more possible context types it can be associated with. An illustration of non-normal order in this approach is (30). Given all possible intonation patterns, it can only be an answer to the questions in (a-h) which are not marked "#":

30.   Ich glaub dass em Patäntamt die Erfindig de Daniel gschickt hät
       I believe that the$_{DAT}$ patent office this invention the D. send has

       a.#What has happened?
       b.#What has Daniel done?
       c.#What has Daniel done with this invention?
       d.#What has Daniel done with respect to the patent office?
       e. What has been done with respect to this invention?
       f. What has been done with respect to this invention and the pat. off.?
       g. What has been done with respect to the patent office?
       h. What has been done with respect to the pat. off., this inv. and D.?

In Höhle's approach, (30) is a perfectly grammatical sentence. The fact that it cannot be used as an answer to all questions in (a-h) is due to pragmatic

factors. In Lenerz' scheme of things, however, (30) would be ruled out as ungrammatical. Haider (1993:209) follows Höhle and also emphasises that "normality" of order and intonation cannot be a grammatical criterion. He asserts that the German sentences in (31) are all grammatical paraphrases of the same content, but not equivalent with respect to the context in which they can occur, due to their differing intonation (stressed syllables are given in upper case letters):

31.   a. Max hat den BEIspielsatz umformuliert
          Max has the example sentence reformulated
        b. Den Beispielsatz hat MAX umformuliert
        c. dass Max den BEIspielsatz umformuliert hat
        d. dass den Beispielsatz MAX umformuliert hat
        e. dass MAX den Beispielsatz umformuliert hat

Reis (1987) also goes along with Höhle's account, but she raises the question whether his stylistically normal word order does not contain a stronger structural component or a stronger structural sense. For many verbs, the sequence S - O in the middle field is the only one that is possible, and for many more it is the more normal one in Höhle's sense. The same applies to the order IO - DO, although there are verbs which admit both orders equally.

Similarly, Stechow & Uhmann (1986) express the need for a structural definition of normal word order. They take Höhle's pragmatic definition, turn it upside down, as it were, and posit the following principle:

32.   Normal linear order allows for maximal focus-projection

The term "focus projection" goes back to Chomsky (1971), who assumes that focus is a property of phrases, indicated by an intonation centre within the focused phrase. The intonation centre may be realised in a number of ways. In German we would expect a pitch accent, as in English. A pitch accent on a syllable or word can characterise its immediate mother constituent as a focused phrase, or it can project further up. In Chomsky's example (33), the intonation centre is the word *shirt*, but any of the constituents in square brackets can be a focus:

33.   He was warned [to look out for[an ex-convict[with[a red[SHIRT]]]]]

Stechow & Uhmann's principle (32) is based on Höhle's insight that deviation from normal word order results in a decrease in focus possibilities. More exactly, any non-normal linear ordering blocks the focus-projection (cf. Höhle 1982:126; Stechow & Uhmann 1986:314). Their example (34), slightly simplified, illustrates this for German, where focus tends to be assigned to the elements immediately before the verb:

34.   a. weil Ede mit der Hacke dies LOCH gehackt hat   (wide focus)
            because E. with the axe this hole   cut   has
        b. ?weil Ede mit der HACKE dies Loch gehackt hat   (narrow focus)
        c. weil Ede mit der Hacke dies Loch geHACKT hat   (narrow focus)
        d. weil Ede dies Loch mit der HACKE gehackt hat   (narrow focus)
        e. ??weil dies Loch mit der Hacke EDE gehackt hat   (narrow focus)

Stechow & Uhmann's aim is a structural account of focus-projection, and as the data show, it makes sense to depart from a normal order for an account of the focus properties of a sentence. However, this alone does not mean that the syntax itself needs to make a distinction between normal and non-normal order. Moreover, Stechow & Uhmann's account is at odds with ZH data like (35) and (36), repeated from above (13/14):

35.   dass DIE Chatz de Hund nöd jagt
        that THIS   cat   the dog not chases
        "that THIS cat, the dog doesn't chase"

36.   dass d Maischölbe d Müüse gfrässe händ
        that the corn cobs the mice   eaten have
        "that the corn cobs, the mice have eaten"

Positing an underlying order of arguments in the middle field requires further evidence. Particularly the idea that the subject should be assigned a structurally prominent position needs to be supported by syntactic evidence. Before we turn to an examination of the behaviour of pronouns with respect to linearisation I will briefly discuss some further approaches to middle field order.

2.4. Functional approaches

Whereas Lenerz (1977), Höhle (1982) and Reis (1987) favour a basically grammatical approach to linearisation, functional linguists prefer to view word order as determined by pragmatics. Lötscher (1981) attempts to show that pragmatic factors, which take into account the context and the speaker, play a more important role than morphosyntactic ones in determining a normal order of middle field arguments. Whereas Höhle equates normal order with what is compatible with the maximum of contexts, Lötscher (1981:44) defines "neutral" order as maximally rhematic, i.e. containing no thematic constituent. However, since the notion of normal or neutral word order does not concern us any longer, we can concentrate on possible constraints which account for real ungrammaticality. While discussing Lenerz' subject/agent condition, Lötscher points out that there is a class of verbs that do not admit subject-object inversion even though the subject cannot be said to be agentive. Such verbs include German *mögen*, "like", *lieben*, "love", *hassen*, "hate", and verbs like *erhalten*, "receive", *erfahren*, "experience; hear of" etc. However, with respect to ZH his prediction is not met. Consider (26) and (28) above, as well the examples in (37), where object > subject is grammatical:

37.   a. ?Offebar hasst Fuessball de Donald
           apparently hates football the D.
           "Apparently Donald hates football"

        b. Hät s Auto d Muetter scho us de Garasch zruggüberchoo?
           has the car the mother already from the garage back got
           "Has Mother got the car back from the garage yet?"

        c. Ich glaub dass die Nachricht d Eltere scho erfahre händ
           I think that this piece of news the parents already heard have
           "I think that the parents have already heard this news"

With the verbs *möge* "like" and *hasse* "hate" (cf. (26) and (37a) respectively) a bias towards subject-object order is noticeable. If this has to be expressed in the grammar then most likely in the pragmatic component. Lötscher further observes that causative verbs whose subjects denote an event do not admit

subject-object inversion, although events are traditionally not assumed to have much agentivity:

38. Es schiint, dass de Fride d Geiselaffäre unterbroche hät
    it seems   that the peace the hostage affair interrupted has

It is indeed difficult to assign (38) an O-S reading, since the S-O reading also makes sense and there is no disambiguating case-marking. Lötscher's own example is the German sentence (39) which he marks as ungrammatical:

39.   *Es scheint, dass den Frieden die Geiselaffäre unterbrochen hat
      it   seems   that the$_{ACC}$ peace the hostages affair interrupted has

It seems to me that Lötscher's judgement here is too restrictive. It is intuitively clear that (39) is odd, but it is not the task of the syntax to prevent the generation of such a sentence. Rather, the pragmatic component has to account for why it is odd, once it is generated. The same applies to the pragmatic tendencies that animate arguments precede non-animate ones, human arguments precede non-human ones, etc. Lötscher explains these tendencies as a matter of speaker/hearer identification with whatever is placed first, and he speaks of empathy (cf. Kuno 1976) with the first-mentioned argument. That these are mere tendencies which cannot be elevated to laws or principles, can be illustrated with Lötscher's own examples, involving the semantically symmetric verb *begegnen* "meet":

40.   a. In der Wüste begegnete ein Nomade einem Esel
         in the desert   met   a   nomad a$_{DAT}$ donkey
         "In the desert a nomad met a donkey"

      b. In der Wüste begegnete einem Esel ein Nomade
         as (a)

      c. In der Wüste begegnete ein Esel einem Nomaden
         in the desert   met   a   donkey a$_{DAT}$ nomad
         "In the desert a donkey met a nomad"

      d. In der Wüste begegnete einem Nomaden ein Esel
         as (c)

All four examples are well-formed, (c/d) are merely slightly unusual because taking the perspective of an animal is unexpected if a person forms part of the scene. There is however a difference when we consider asymmetric verbs taking Accusative objects, hence the contrast in German (41):

41.   a. Auf dem Markt begegnete einem Esel ein Nomade
          on the market   met   a$_{DAT}$ donkey a nomad
          "At the market a donkey met a nomad"

       b.??Auf dem Markt kaufte einen Esel ein Nomade
          on the market   bought a$_{ACC}$ donkey a nomad
          "At the market a nomad bought a donkey"

Apart from the semantic difference between the two verbs *begegnen* (symmetric) and *kaufen* (asymmetric) it may be relevant that the Dative is more strongly associated with animacy than the Accusative, a statistical correlation noted by Zubin & Köpcke (1985:97).

Zubin & Köpcke (1985) also take a pragmatic approach and present data from an acceptability judgement experiment, which is confined to Nominative and Accusative arguments. They note a preference for the order Agent (Subject) > Goal (Object), and a weaker tendency for animate > inanimate. This is in sharp contrast to Lenerz (1977) who claims that agency is the decisive factor and that animacy is irrelevant. They further observe a preference for pronoun > indefinite NP, hence German (42a) is judged as better than (42b):

42.   a. weil ihn eine Flasche getroffen hat
          because him a bottle   hit   has
          "because a bottle hit him"

       b. weil eine Flasche ihn getroffen hat

They note that there is tendency definite NP > indefinite NP, and pronoun > definite NP, unless animacy and agency of the second constituent override these regularities. But most importantly, they conclude that no single factor is supreme, and that there are differences between individual respondents, some judging givenness as more important, others agency. They suggest a

multiclausal linearisation mechanism operating with "weights" of individual factors favouring S > DO over DO > S in a competition model. It is speculated that the order tendencies involving agency, animacy, givenness, definiteness and theme/rheme structure could be aspects of a common notion such as Lenerz' "communicative centre" or an "ego-centre" or "me-first" principle. Zubin & Köpcke further speculate that the linearisation mechanism lies outside the domain of rule structures in a competence grammar. They believe it to be an instance of general cognitive problem solving, not specific to language.

As far as middle field linearisation of arguments is concerned, I conclude that we are dealing with pragmatic regularities which lie outside syntax proper. Violation of these regularities never actually produces ungrammaticality. One may object that such a conclusion does not solve the problems presented by word order variation in the middle field, it merely assigns them to another component of linguistic competence. It is essential, though, that a clear distinction is made between pragmatic word order phenomena and syntactic ones.

2.5. Uszkoreit (1987)

A competition model employing a multiclausal linearisation mechanism has also been proposed by Uszkoreit (1987), in the framework of Generalised Phrase Structure Grammar (GPSG). As GPSG works with one level of representation only and does not allow for syntactic derivation, his account is necessarily non-modular. All order principles are located in the linear precedence (LP) component of the metagrammar. The complex LP rule in (43) orders the set of arguments in the German middle field:

43.
$$
\begin{bmatrix}
+\text{NOM} & > & +\text{DAT} \\
+\text{NOM} & > & +\text{ACC} \\
+\text{DAT} & > & +\text{ACC} \\
-\text{FOCUS} & > & +\text{FOCUS} \\
+\text{PRONOUN} & > & -\text{PRONOUN}
\end{bmatrix}
$$

Any one of the simple LP clauses in (43) can be violated as long as the violation is sanctioned by at least one of the other clauses. The fewer clauses are violated, the more acceptable a sentence is. In fact, Uszkoreit suggests the following criterion for distinguishing between stylistic and syntactic acceptability: "As long as one ordering principle licenses an order, it is syntactically well-formed. The degree of markedness increases with the number or total weight of violated principles." (1987:123) In later papers (but published earlier, viz. 1986a,b), Uszkoreit formulates the LP clauses in terms of thematic roles rather than case, and orders the clauses by weight, placing +pronoun > -pronoun first, and -focus > +focus last. But how exactly the weighting is to be implemented is left unclear.

Uszkoreit's proposal is interesting in principle but his complex order rule leaves a lot to be desired. For instance, personal pronouns do not obey the same order constraints as full NPs, and a sentence like German (44) is left unaccounted for:

44.   Dann gibt sie der Arzt ihm   (sie: die Pille
       then gives her the doctor him   (her: the pill)

(44) is perfectly well-formed, although it violates clauses (a), (b) and (d) of the LP rule above (cf. also Hauenschild (1988) for a critical review). The linearisation of pronouns is the subject of the next section.

2.6. Pronouns

Lenerz (1977) proposes S - DO - IO - PO as the unmarked order for pronominal arguments and he further states that pronominal NPs/PPs precede non-pronominal ones (cf. 2.1. above), as does Uszkoreit with his principle +pronoun > -pronoun. I have argued that Lenerz' notion of normal order is not tenable. Abstracting away from any notion of normal word order, my intention is to examine whether pronoun order provides any clues about order asymmetries in the middle field. So far, none of the material discussed can be taken as solid evidence for a particular basic order in the ZH middle field. It

follows that there is no reason to posit a structurally asymmetric middle field. When the distribution of pronouns is taken into account, though, certain asymmetries become obvious.

45.   a. dass de Hans dä Schtudänt em Prof vorgschtellt hät
          that the H. this student the prof introduced has
          "that Hans introduced this student to the professor"

       b. dass de Hans em Prof dä Schtudänt vorgschtellt hät
       c. dass dä Schtudänt de Hans em Prof vorgschtellt hät
       d. dass dä Schtudänt em Prof de Hans vorgschtellt hät
       e. dass em Prof de Hans dä Schtudänt vorgschtellt hät
       f. dass em Prof dä Schtudänt de Hans vorgschtellt hät

46.   a. dass er ihn mir vorgschtellt hät
          that he him me introduced has
          "that he introduced him to me"

       b. dass er mir ihn vorgschtellt hät
       c. dass ihn er mir vorgschtellt hät
       d. dass ihn mir *er/ER vorgschtellt hät
       e. dass mir er ihn vorgschtellt hät
       f. dass mir ihn *er/ER vorgschtellt hät

Whereas in (45) all three arguments can occur in any order without obligatory stress on any one - this can be tested by placing stress on the verb - (46d/f) are only acceptable if the subject pronoun receives emphatic or contrastive stress. If the pronouns occur in their reduced or clitic forms, the flexibility of the subject pronoun is further constrained. (47) illustrates that in a string of clitics the subject clitic must occur in first position (è stands for schwa). In medial position (c/d) an unstressed or stressed subject pronoun is possible, and in final position (e/f) only a stressed, i.e. focused subject pronoun can occur.

47.   a. dass-èr-en-mer vorgschtellt hät
       b. dass-èr-mer-en vorgschtellt hät
       c. dass-mer-*èr/er/ER-en vorgschtellt hät
       d. dass-en-*èr/er/ER-mer vorgschtellt hät
       e. dass-en-mer-*èr/*er/ER vorgschtellt hät
       f. dass-mer-en-*èr/*er/ER vorgschtellt hät

This means that the stressed subject pronoun has the same distribution as a full NP, whereas an unstressed subject pronoun may occur in all positions except the last, and a clitic subject pronoun must occur in the first position relative to other arguments. There seems to be a general constraint against placing an unstressed subject pronoun last in a series of arguments, independent of how many arguments there are, and this also applies to psych verbs:

48.   a.*wil ihn ich iiglade ha
        because him I invited have

      b.*wil ihre er aalüüte sött
        because her he phone should

      c.*wil ihm si gfale hät
        because him she pleased has

However, this constraint is confined to personal pronouns, and does not apply to demonstratives, which can be used interchangeably with personal pronouns:

49.   a. wil ihn die iiglade hät
        because him she invited has

      b. wil ihre dä aalüüte sött
        because her he phone should

      c. wil ihm die gfale hät
        because him she pleased has

It is therefore not evident that this constraint can be attributed to syntactic structure. It seems to be due to lexical idiosyncrasies of the personal pronouns, particularly of the reduced pronouns. Indefinite pronouns, for instance, behave like demonstratives again:[4]

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[4] The pattern in (50) seems to be in conflict with Haider's (1993:202) observation that German indefinite pronouns are "platzfest". The indefinite pronouns he has in mind are wh-expressions, though, which have no counterparts in ZH (where such wh-expressions can only be interpreted as interrogatives), cf. German (i), which corresponds to (50a):
(i) Es hat wer wem was geklaut

50.   a. Es hät irgendöpper irgendöpperem irgendöppis gchlaut
          it has somebody somebody_{DAT} something   stolen
          "Somebody stole something from somebody"

       b. Es hät irgendöpperem irgendöpper irgendöppis gchlaut
       c. Es hät irgendöppis irgendöpper irgendöpperem gchlaut
       d. Es hät irgendöpper irgendöppis irgendöpperem gchlaut
       e. Es hät irgendöpperem irgendöppis irgendöpper gchlaut
       f. Es hät irgendöppis irgendöpperem irgendöpper gchlaut

As for the statement that pronominals precede non-pronominals, it can be shown that this is at most a tendency. All the order variants in (51), to mention just a few, are well-formed:

51.   a. dass de Hans ihm dä vorgschtellt hät
          that the H.   him him introduced has
       b. dass ihm de Hans dä vorgschtellt hät
       c. dass dä ihm de Hans vorgschtellt hät

To summarise the discussion so far, it has been argued that contrary to what one might expect, the linearisation of pronominal and non-pronominal arguments does not indicate a particular structuring of the middle field. The fact that the behaviour of personal pronouns is distinct from that of other pronouns suggests that syntactic generalisations cannot be based on these elements. In chapter 3, the distribution of weak personal pronouns is accounted for in terms of lexical and phonological properties. The next section briefly discusses the positions of adjuncts.

2.7. Adverbs, particles, and prepositional objects

Consider the various positions of a sentence adverb like *wahrschiinli*, "probably", in the following examples:

52.   a. wil   wahrschiinli d   Neffe em Donald die Torte gmacht händ
        because probably the nephews to-the D. this cake made have

      b. wil d Neffe wahrschiinli em Donald die Torte gmacht händ
      c. wil d Neffe em Donald wahrschiinli die Torte gmacht händ
      d. wil d Neffe em Donald die Torte wahrschiinli gmacht händ
      e. wil em Donald die Torte d Neffe wahrschiinli gmacht händ
      f. wil wahrschiinli em Donald die Torte d Neffe gmacht händ
      g. wil die Torte wahrschiinli em Donald d Neffe gmacht händ
      h. wil die Torte em Donald wahrschiinli d Neffe gmacht händ

All these permutations are equivalent in content and thus provide no reason to
assume a single basic position for the sentence adverb. Hetland (1992) defines
sentence adverbs as adverbs which can serve as an answer to yes-no-questions
and which can furthermore occur on their own in clause-initial position in V2
clauses. The latter criterion distinguishes them from particles (cf. 54):[5]

53.   a. Händ si die Torte ihm gmacht? - Wahrschiinli
        have they this cake him made   probably

      b. Wahrschiinli händ si ihm die Torte gmacht
        probably   have they him this cake made

54.   a. wil d Neffe ja aber em Donald die Torte gmacht händ
        because the nephews PART PART the D. this cake made have
      b. wil d Neffe em Donald ja aber die Torte gmacht händ
      c. wil d Neffe em Donald die Torte ja aber gmacht händ

      d.*Ja aber händ si ihm die Torte gmacht
        PART PART have they him this cake made

Whereas sentence adverbs can appear in any position in the middle field, VP
adverbs would be expected to have a narrower distribution, as their name
suggests. However, even a subject-oriented adverb like *ungern* has the same
order possibilities as a sentence adverb:[6]

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[5] The position of particles is discussed in 3.3.5. below.
[6] If the adverb *gern* "gladly" is employed, the resulting pattern is somewhat different: (55d),
(55g) and (55h) are then less felicitous, possibly due to prosodic effects.

55.   a. wil d Neffe em Donald die Torte ungern gmacht händ
       because the nephews the D. this cake not gladly made have
       "because the nephews did not gladly make Donald this cake"

       b. wil d Neffe em Donald ungern die Torte gmacht händ
       c. wil d Neffe ungern em Donald die Torte gmacht händ
       d. wil ungern d Neffe em Donald die Torte gmacht händ
       e. wil em Donald d Neffe ungern die Torte gmacht händ
       f. wil die Torte em Donald d Neffe ungern gmacht händ
       g. wil em Donald ungern d Neffe die Torte gmacht händ
       h. wil ungern em Donald d Neffe die Torte gmacht händ

What has been neglected in the discussion of linearisation constraints so far is
the position of prepositional objects. Müller (1993) for instance follows
Lenerz (1977) in reserving a position immediately to the left of the verb for
obliques, i.e. he states that certain PP-arguments, some adverbs of place,
direction, manner etc. can only occur in this verb-adjacent position. It is
unclear to me though what exactly these elements are. In particular, at least in
ZH, prepositional objects need not occur in verb-adjacent position:

56.   a. wil ich a die Lüüt en Brief gschribe ha
          because I to these people a letter written have
          "because to these people, I have written a letter"
       b. wil ich en Brief a die Lüüt gschribe ha

Müller (1993:103f) argues that the order of arguments in the middle field is
derived by movement (which necessitates the assumption of a base order, of
course) because of cases like (57) (his examples):

57.   a. dass E. [pp über G.]$_i$ mal wieder [$_{NP}$ ein Gerücht t$_i$] gehört hat
          that E.   about G. once again   a rumour   heard has
          "that E. has once again heard a rumour about G."

       b. dass da$_i$ wieder der F. [pp t$_i$ für] zahlen musste
          that that again the F.   for pay had to
          "that for this F. had to pay again"

In (57a) a PP is extracted from an object NP, in (57b) a pronoun is extracted from a PP. Since these extracted elements are not arguments of the verb but rather of N and P respectively, it is inevitable to analyse such constructions in terms of movement. Müller then argues that since movement is necessary for such cases there is no reason not to derive data like (58) in the same fashion.

58.　a. dass seine Studentinnen den F. bewundern
        that his   fem. students   the F.   admire
        "that his female students admire F."

    b. dass den F.$_i$ seine Studentinnen t$_i$ bewundern

However, this is an argument based purely on analogy, and the analogy is not even very strong: The constituency of [*ein Gerücht über G.*] and [*dafür*] is hardly controversial, and cannot be compared directly to that of the German VP. In (57) we clearly have discontinuous constituents, whereas the assumption of a discontinuous constituent in (58b) is less plausible. The VP issue will be further discussed in section 3 below.

As for the order of adverbials among each other, it can be said to be a property of the verb semantics in which order a verb can combine with adverbials, hence the contrast in (58/59), which is taken from Lenerz (1977:83) and translated into ZH:

59.　a. Was häsch in Berlin gmacht? -*Im Früelig gschaffet
        what have you in Berlin done   in spring worked
      b. Was häsch im Früelig gmacht? - In Berlin gschaffet
        what have you in spring done   in Berlin worked

      c. (im Früelig (in Berlin (schaffe))) - TEMP - LOC - V
        in spring   in Berlin work

60.　a. Vor Mitternacht iischlafe cha i dem Hotel niemert
        before midnight fall asleep can in this hotel nobody
      b.??I dem Hotel iischlafe cha vor Mitternacht niemert
        in this hotel fall asleep can before midnight nobody

      c. (i dem Hotel (vor Mitternacht (iischlafe))) - LOC - TEMP - V

2.8. Conclusions

To summarise section 2, it has been argued that the linearisation of arguments and adjuncts in the middle field provides no syntactic evidence in favour of a particular clause structure, and with that the idea of a basic underlying order is doubtful at best. The postulation of a normal or base structure requires good syntactic arguments and none have been discovered in this section.

3. Configurationality

The relative freedom of constituent order in the German middle field has given rise to the idea that German is a non-configurational language (cf. Sternefeld 1982, Hale 1983). Whether the German middle field should be assigned a hierarchical structure or not has been the subject of the configurationality debate in the past fifteen years or so. According to Hale (1983) the following properties of a language are criteria for non-configurationality:

61.   a. rich case system
      b. free word order
      c. lack of NP-movement
      d. lack of pleonastic NPs
      e. complex verb words
      f. use of discontinous expressions
      g. pronoun drop

It has since been recognised that pronoun drop should be taken off this list, as configurational languages like Italian display this property. Haider (1989) shows that German satisfies the criteria (61a-f), but he emphasises that this is not compelling evidence for a non-configurational account. What he takes to be the crucial property from which most of the properties in (61) are to be derived is the presence of a verb projection which includes the subject. Frey (1990:29f) points out that although the reduction of the configurationality debate to the question whether the VP contains the subject does not follow from Hale's criteria, one can assume that a subject-exclusive VP is a necessary condition for the configurationality of a language. There is no a priori reason

why configurationality and fixed subject position should be related to a subject-exclusive verb projection. Arguments of the verb can just as easily be defined in terms of different levels of a verb projection alone. However, in most discussions of German clause structure it is implied that configurationality means the presence of a VP (cf. Fanselow 1987). In the following, some standard diagnostics for constituency and configurationality are examined, starting with coordination and fronting.

3.1. Coordination

Coordination data suggest that the ZH middle field has a binary branching structure rather than a flat one (cf. Frey 1990:32f. for German). In (62) the coordinated elements are underlined.

62. a. dass d Neffe sowohl em D. e Torte mached als au de I. Blueme gänd
that the nephews and to-the D. a cake make and to-the I. flowers give
"that the nephews make D. a cake and give I. flowers"

b. dass si d Torte nöd nur em D.mached sondern au für mich fotografiered
that they the cake not only the D. make but also photograph for me
"they they not only make a cake for D. but also photograph (it) for me"

c. dass si d Torte nöd nur mached sondern au verchaufed
that they the cake not only make but also sell
"that they not only make the cake but also sell (it)"

In (62a) two IO-DO-V constituents are coordinated, in (62b) IO-V and V, and in (62c) two Vs. In a flat structure the coordinated elements would not form constituents and would thus not be accessible to a process like coordination. In a standard hierarchical structure, however, the coordinated constituents in (62a) would be VPs, in (62b/c) partial VPs with the DO *d Torte* extracted across the board out of both constituents. However, coordination of elements which would not standardly be considered constituents is also possible:

63. De Donald git de Daisy e Tulpe am Samschtig und e Rose am Sunntig
the D. gives the D. a tulip on Saturday and a rose on Sunday

It appears that coordinability is a necessary but not sufficient condition for constituency (cf. Steedman 1985 on non-constituent coordination).

3.2. Fronting

It is regarded as one of the few certain facts of continental West Germanic languages that only one constituent can occur in the initial position of V2 clauses.[7] An examination of the elements that can occur together in this position is expected to shed light on constituency in the middle field, since standard theorising assumes that the clause-initial position is occupied by fronting (topicalising) one constituent from the middle field, an assumption I leave unquestioned at this point. Consider now the data in (64):

64. a. De Donald hät geschter sine Neffe d Schparsau gchlaut
     the D. has yesterday his nephews the piggy-bank stolen
     "Yesterday Donald stole the piggy-bank from his nephews"

     b. [Geschter sine Neffe d Schparsau gchlaut] hät de Donald
     c. [Sine Neffe d Schparsau gchlaut] hät de Donald geschter
     d. [D Schparsau gchlaut] hät de Donald sine Neffe geschter
     e. [Sine Neffe gchlaut]hät de Donald geschter d Schparsau
     f. *[De Donald gchlaut] hät sine Neffe d Schparsau geschter
     g. *[De Donald d Schparsau gchlaut] hät sine Neffe geschter
     h. *[De Donald sine Neffe d Schparsau gchlaut] hät geschter

As can be seen, a non-finite verb can be fronted together with any of its arguments and adjuncts except with the subject. This asymmetry is commonly accounted for by positing that in a CP/IP/VP structure VP fronting is possible whereas IP fronting is excluded. Additionally, it is assumed that the VP can be partially emptied by scrambling constituents out of it prior to fronting. This is

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[7] Although even this "certain" fact is sometimes questioned. Jacobs (1983) argues that cases of particles plus NPs/CPs in front of the finite verb such as (i) are exceptions (cf. also Bayer (1990) for a discussion)
(i) [Nur dass der Kanzler zu dick sei] hat Hans gesagt
    only that the chancellor too fat is has Hans said
cf.: (ii)*weil Hans gesagt hat [nur dass der Kanzler zu dick sei]
     (iii) weil Hans nur gesagt hat [dass der Kanzler zu dick sei]

essentially the analysis proposed by den Besten & Webelhuth (1987).[8] Data like (65) can clearly not be handled this way, though, and it is an open question how the two objects can form a constituent.

65.   Sine Neffe d Schparsou hät de Donald geschter gchlaut
        his nephews the piggy-bank has the D. yesterday stolen

It looks as if fronting, like coordination, does not make a good constituent test either. Before we look at the VP structure more closely, in connection with scrambling, we next consider evidence for and against a functional projection in the middle field.

3.3. Does the middle field contain a functional projection?

The standard structure for English is given in (66) (cf. Chomsky 1986). It has become widely acepted to apply this structure to German by simply turning IP and VP into head-final projections (67):

66.   [CP [C' C [IP NP [I' I [VP V ...]]]]]

67.   [CP [C' C [IP NP [I' [VP ... V] I]]]]

Leaving the internal structure of the VP aside for the moment, the applicability of (67) to ZH will now be discussed. Two questions are to be addressed: (i) Is there any evidence for a (clause-final) INFL-position? (ii) Is there any evidence for a designated subject position SpecIP? As Haider (1993:59) notes, much effort has been devoted to proving the existence of an independent INFL position in English. In contrast, the presence of clause-final INFL in German has never been empirically justified. If it were not for the English model, there would be no immediate reason to take the finite verb in clause-final position to be in a derived position, as movement of the verb to an adjacent INFL is always invisible.

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[8] Cf. 3.4. below for discussion.

3.3.1. Evidence for INFL in English

Evidence for INFL in English is provided by the distribution of auxiliary and modal verbs as opposed to full verbs. Subject inversion only takes place with these verbs, sentence adverbs can follow them, and negation requires the use of auxiliaries or modals. "Tags" furthermore involve the use of auxiliaries or modals, and VP deletion shows a contrast between these verbs and full verbs (cf. Frey 1990:15). This is illustrated in (68). The ZH translations show that none of these phenomena point to an independent syntactic category INFL for ZH auxiliaries and modals (and the same holds of German). Moreover, whereas English modals are always finite (with the exception of *want*, if it is considered a modal) and only have a present tense paradigm, the ZH modals behave like full verbs (68i).

68.   a. *Reads John magazines?
        "List de Hans Ziitschrifte?"

        b. Will/can John read magazines?
        "Wird/cha de Hans Ziitschrifte läse?"

        c. *John reads probably Latin
        De Hans list wahrschiinli Latin

        d. John can probably read Latin
        De Hans cha wahrschiinli Latin läse

        e. *John eats not in restaurants
        De Hans isst nöd i Beize

        f. John doesn't eat in restaurants
        De Hans isst nöd i Beize

        g. She doesn't read Latin, does she?

        h. *She doesn't read Latin, reads she?

        i. Chöne tuet er das scho, aber törfe nöd
          can does he this   but may not
        ""He does can this but doesn't may it""
        "He is able to do it but he is not allowed to"

Further evidence for INFL comes from infinitival complements. The infinitival marker *to* is often analysed as an INFL element (and more recently, in split-IP structures, as a TENSE element). Again, the ZH data are not parallel and do not warrant the same conclusion with respect to *z* (cf. Chapter 5). Even for English, though, problems arise with respect to INFL. Höhle (1993:2) mentions subjunctives, where the finite verb follows rather than precedes the negation (69), as problematic:

69.   they request that you not be late

3.3.2. Arguments against INFL

As mentioned already, movement of a VP-final verb to an IP-final INFL is not visible, hence it cannot be determined whether the verb moves to INFL - if INFL exists at all - .or stays in situ. This is a problem in all the Germanic OV-languages, i.e. German, Dutch and their dialects (cf. Rohrbacher 1994:28). Haider (1993:60ff) argues against the presence of a (clause-final) INFL in German on the basis of data involving the extraposition of PPs and CPs. At least in colloquial German, PPs can appear before and after the verb, but not between non-finite and finite verb. The same can be shown in Dutch (cf. Ackema et al (1993:5)) and in ZH (71):

71.   a. dass er nie meh redt [mit mir]
           that he never again speaks with me

        b. [gredt [mit mir]] hät er nie meh
           spoken with me   has he never again

        c.*dass er nie meh gredt [mit mir] hät
           that he never again spoken with me has

        d. dass er nie meh gredt hät [mit mir]
           that he never again spoken has with me

If there are distinct V and INFL nodes and hence an adjunction site between them (VP), the ungrammaticality of (71c) is unexpected. Moreover, if the extraposed PP were adjoined to a projection of INFL in (71d) we would expect the fronted constituent in (71b) to be an INFL-projection too. The fact that the subject remains in the middle field suggests it would have to be something smaller than IP, but intermediate projections cannot normally be moved.

Haider presents a similar argument involving CP extraposition. Again, I shall employ ZH examples to illustrate his point. (72) shows that extraposed clauses are adjoined to VP and fronted along with the VP. The corresponding base structures with extraposition (before fronting and V2 movement), however, would be expected to be (73) if there is an INFL position above the VP-adjoined extraposed clause, but the structures in (73) are ungrammatical. The grammatical "intraposed" versions are given in (74):

72.   a. [[en Hund füettere] [wo Hunger hät]] würded ali
           a dog feed   REL hunger has   would everybody
           "Feed a dog that is hungry, everybody would"

        b. [[gfrögt] [öb ich zfride bi]] hät si mi nöd
           asked whether I content am has she me not
           "Asked whether I am content, has she me not"

73.   a. *dass ali [[en Hund füettere] [wo Hunger hät] würded
             that all   a dog feed   REL hunger has would

        b. *dass si mi nöd [[gfrögt] [öb ich zfride bi]] hät
             that she me not asked whether I content am

74.   a. dass ali en Hund füettere würded [wo Hunger hät]
            that all a dog feed   would REL hunger has

        b. dass si mi nöd gfrögt hät [öb ich zfride bi]
           that she me not asked has whether I content am

A further argument against V-to-INFL raising is due to Höhle (1991:2) and also discussed in Haider (1993:62). There are complex verbs in German[9] which cannot move to clause-initial position. V2 movement would require prefix splitting but for morphological reasons the prefix cannot be split off. Hence the contrast between the verb *aufführen* "perform" and *uraufführen* "perform for the first time (première)".

75. a. wenn die das Stück nicht aufführen
        if they the play   not perform
        "if they don't perform the play"

    b. Führen die das Stück nicht auf?
        perform they the play not?
        "Don't they perform the play?"

76. a. wenn die das Stück nicht uraufführen
        if they the play   not première
        "if they don't première the play"

    b.*Uraufführen die das Stück nicht?

    c.*Führen die das Stück nicht urauf?

77. a. wenn die das Stück nicht uraufführen werden
        if they the play   not première   will
        "if they won't première the play"

    b. Uraufführen werden die das Stück nicht

It is argued that the grammaticality of (76a) shows that no movement to INFL can have taken place, as prefix splitting is assumed to go hand in hand with movement (i.e. in (75b) the prefix is taken to remain in V). Rather, the verb in (76a) behaves like a verb in base position, cf. (77). It might be objected that the data merely show that a complex verb like *uraufführen* cannot move to C, from which it does not necessarily follow that it cannot move to INFL.

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[9] Among the verbs Höhle (1991) lists are *zwischenfinanzieren* "provide bridging funds", *wettrudern* "row in competition", *rückfragen* "check back", *bausparen* "save for building", *bauchreden* "ventriloquise".

However, the ungrammaticality of (78) shows that the prefix obligatorily moves with the verb to INFL. It is therefore mysterious why it cannot also move with the verb to C:[10]

78.   *Wenn die das Stück nicht auf [mit ihr] führen
          if   the the play   not   with her perform

As for ZH, the complex verbs above can move to C, the dialect being rather more flexible in this respect than German:

79.   a. Uruffüered die das Schtück in Züri?
              première   they this play   in Zurich?
              "Do they première this play in Zurich?"

       b..Er zwüschefinanziert ois oisi Plän
           he between-finances   us our plans
           "He provides bridging funds for our plans"

       c. Dä Clown buchredet ganz guet
           "that clown ventriloquises quite well"

To sum up, apart from the complex verb argument, which cannot be extended to ZH, this section has presented two good arguments against INFL : (i) V-to-INFL movement is invisible, and (ii) the assumption of INFL makes the wrong predictions with respect to extraposition of CP and PP.

3.3.3. Arguments for INFL

Den Besten (1985:30) notes that "it is a well-known fact that it is very difficult to find evidence in favor of an INFL or AUX in either Dutch or German syntax". In the following, two potential arguments for INFL in ZH are examined. It has been suggested by J. Sabel (p.c.) that the following data involving complex fronting provide evidence in favour of INFL (or AGR). There is a clear grammaticality contrast in (80):

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[10] Thanks to Caroline Heycock for pointing this out to me.

80. a. *[Linguistischi Büecher liest] glaub i dass de Peter nie
      linguistic   books reads think I that the P. never

    b. [Linguistischi Büecher gläse] glaub i dass de Peter nie hät
      linguistic   books read think I that the P. never has

If the finite verb is in the VP, in the absence of an INFL node, this contrast is unexpected, as a VP should be frontable in any case, whether it contains a finite verb or a non-finite one. If the finite verb is in INFL, though, the ungrammaticality of (80a) is simply due to the impossibility of fronting an INFL-projection. However, it is conceivable that (80a) is ungrammatical on independent grounds, viz. because a complementiser-introduced clause must contain an overt finite verb (not just a trace of a finite verb). If we consider a parallel example with an embedded V2 clause, fronting is possible as in (81):

81. [Linguistischi Büecher gläse] glaub i hät de Peter nie
    linguistic   books read think I has the P. never

It may be objected that (81) is a parenthetical construction, but it then remains unclear why the parenthetical insertion of a non-bridge verb is ungrammatical:

82. a. *[Linguistischi Büecher gläse] beduur i hät de Peter nie
      linguistic   books   read   regret I has the P. never

    b. *[Linguistischi Büecher gläse] argumentiert si hät de Peter nie
      linguistic   books   read   argues   she has the P. never

A further potential argument in favour of INFL in ZH is the existence of a dummy or expletive *tue* "do", which is also common in (Southern) German dialects, but less so in Standard German (cf. Eroms 1984 for Bavarian, Gärtner & Steinbach 1994:50ff). Like English modals, *tue* has a defective paradigm, and only displays present tense forms, but no participle and no infinitive (83).

This distinguishes it from the full verb *tue* which is only used in conjunction with adjectives or particles (unlike German *tun*[11]), as shown in (84) and (85):

83.   a. Er tuet s Gschirr abwäsche
          he does the dishes wash-up
       b. dass er s Gschirr abwäsche tuet
          that he the dishes wash-up does
       c.*dass er s abwäsche tue wott
          that he it wash-up do wants
       d. *Er hät s abwäsche taa
          he has it wash up done

84.   a. Er tuet blöd
          he does silly ("is being silly")
       b. dass er blöd tuet
          that he silly does
       c. dass er blöd tue wott
          that he silly do wants
       d. Er hät blöd taa
          he has silly done

85.   a. Tue s det ufe!
          do it there up ("put it up there")
       b. dass si s det ufe tuet
          that she it there up does
       c. dass si s det ufe tue wott
          that she it there up do wants
       .d. Si hät s det ufe taa
          she has it there up done

The use of dummy *tue* is not confined to child language, as is sometimes assumed. Rather it seems to be a matter of convenience, e.g. when it simplifies coordinations:

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[11] ZH *tue* is quite different from German *tun* in that it cannot be used as a verbal anaphor, unlike the verb *mache* "make, do", cf. German (i) and ZH (ii):

  (i) Rufst du ihn an? - Ja, das tu ich / Ja, das mach ich.
      phone you him up   yes, that do I / ditto
  (ii) Lüütisch em aa? - *Ja, das tue-n-i / Ja, das mach-i
      phone you him up   yes, that do I

86.   a. Tue s Gschirr zerscht abwäsche und dänn abtröchne!
        Do the dishes first   wash-up   and then   dry-up
      b. Wäsch s Gschirr zerscht ab und tröchne s dänn ab!
        wash the dishes first   up and dry   it then   up

Moreover, *tue* is also frequently used in its conditional form, instead of the auxiliary *werde*, with no difference in meaning:

87.   Ich würd/tät mi vorschtele wänn i dich wär
      I would/would me introduce if I you were
      "I would introduce myself if I were you"

It could be argued that *tue* is always latently present (cf. Eroms 1984) in INFL, where it either appears overtly, or if covert triggers verb movement to INFL. Depending on other theoretical assumptions and in combination with an apparatus supporting such an argument, expletive *tue* admittedly can be used as evidence in favour of a functional position. In a similar way the existence of expletive subjects is often quoted as evidence for an obligatory subject position (cf. below). I believe, though, that in the absence of further good reasons to assume INFL, the existence of expletive *tue* alone does not constitute compelling evidence.

3.3.4. For and against SpecIP

Another side of the issue whether an INFL projection is present in ZH is the question if a functional specifier position is required. Without INFL no SpecIP is possible, whereas with INFL a specifier position is possible, albeit not necessary. The strongest evidence for an obligatory subject position comes from the distribution of expletive subjects. The fact that ZH like German displays constructions in which an expletive subject is actually ungrammatical in stark contrast to other Germanic V2 languages, viz. impersonal passives, would seem to point to the absence of an obligatory subject position (cf. Haider 1993):

88. a. Es wird überall glacht
     it is everywhere laughed
     b. Überall wird (*es) glacht
     c. dass überall (*es) glacht wird

89. a. Det skrattas överallt   Swedish
     it laugh-PASS everywhere
     b. överallt skrattas (det)
     c. om det skrattas överallt

90. a. Er werd overal gelachen   Dutch
     b. Overal werd (er) gelachen
     c. als (er) en Brussel gelachen werd

On the assumption that *es* in (88a) is the same element as in (88b/c) it is surprising to see it disallowed in the middle field if an obligatory subject position should be available. If no such position exists, on the other hand, the distribution in (88) is predicted. This is, in essence, the approach of Haider (1988, 1993). Others have argued for German that there is an obligatory subject position which is filled by an expletive *pro* in (88b/c) (cf. Grewendorf 1989, Cardinaletti 1990, Platzack 1990). Grewendorf (1989:155) for instance suggests that "the German *es* appears, alongside its function as a *referential pronoun*, as a *quasi-argument* ("atmospheric *es*"), as a so-called *Vorfeld* (CP-Spec)-*es* (a non-expletive *es* in my view), and also as an *expletive for a sentence constituent*." Despite these manifold incarnations, the appropriate lexical expletive for constructions like (88b/c) is not available in German, Grewendorf argues. He thus borrows and applies to German Haider's explanation for the absence of impersonal passives in Italian and English, viz. that both these languages lack a suitable expletive. Whereas French for instance employs an expletive *il* in impersonal passives, Italian has no comparable expletive. English *it* cooccurs with clauses only while *there* must be coindexed with a subject NP from which it gets its agreement features (cf. Haider 1988:68). With regard to German, Haider holds that there is indeed a

suitable expletive, viz. the element that occurs in middle constructions, and the same is true of ZH, as in (91):[12]

91. Da läbt sich *(s) guet
here lives REFL (it) well

But Grewendorf (1989:156) notes with respect to German that the subject of middle constructions cannot be considered an expletive. Rather, it must be a quasi-argument, as it can engage in a control relation. Again, I use a ZH example for illustration:

92. Da schafft sich s schlächt ohni guet z verdiene
here works REFL it badly without well to earn

However, impersonal passives can also be expanded with control relations, as the ZH translation of Grewendorf's own example (p.153) shows:

93. wil gschafft wird ohni PRO z reklamiere
because worked is without to complain

The expletive *pro* which Grewendorf assumes to be in the subject position of (93) can by definition not be a controller. (93) is therefore considered an exception to the rule (cf. Höhle 1978) that PRO in *ohne-zu*-infinitivals is always controlled by the matrix subject. It must instead be controlled by an implicit PP-argument *vo ihne* "by them", or the like.

Leaving aside details of how an an expletive *pro* would be licensed I will confine myself to two arguments against expletive *pro* in German and ZH. Brandner (1991:59) observes the following contrast which carries over to ZH:

94. a. wil sich s da guet tanzt
because REFL it here well dances

b.*wil sich da guet tanzt

---

[12] There is a word order contrast between German and ZH here, perhaps due to phonological reasons, cf. German (i)
(i) *Da lebt *(es) sich gut*

She notes that the assumption of an expletive *pro* in (94b) would predict this construction to be grammatical, as the expletive *pro* - as an empty pronoun - should be able to bind the anaphor *sich*, just as the overt expletive in (94a) acts as a binder.[13] Assuming an expletive *pro* in this context would thus require the additional stipulation that it cannot figure as a binder. The second argument is due to Fanselow (1991:80) who points out that expletive *pro* would be expected to occur in all syntactic contexts in which subjects appear. In particular, it would be predicted to occur in clause-initial position, i.e. in SpecCP, contrary to fact:

95.   a. *e* wird überall glacht
          is everywhere laughed

       b. *e* wird em Chind es Gschänk ggää
          is the child a present given

       c. *e* läbt sich da guet
          lives REFL here well

It cannot be argued that an expletive *pro* may not move to SpecCP, as its overt expletive counterpart may well move there:

96.   a. dass es sich da guet läbt
          that it REFL here well lives

       b. Es läbt sich da guet
          it lives REFL here well

Nor can it be argued that empty elements are generally disallowed clause-initially, as examples of "topic-drop" (cf. Chapter 4) illustrate:

97.   *e* Han ich ihm ja gseit
          have I him PART told

---

[13] As mentioned above, Grewendorf argues that the subject of middles cannot be an expletive but must be a quasi-argument.

To conclude this discussion of expletive *pro* it should be added that the German/ZH passive suggests that a subject position (SpecIP) need not be present. The Nominative NP can follow an indirect object:

98.   a. wil öpper em Peter die Gschicht verzellt hät
       because somebody the P. this story told has

       b. wil ___ em Peter die Gschicht verzellt worde isch
       because the P.   this story told   been is

Proponents of an expletive *pro* argue that the subject position in (98b) is filled by this empty element. Nominative can then be assigned to SpecIP and transmitted to the VP-internal subject by means of a percolation mechanism (cf. Grewendorf 1989). (98b) shows that the subject can remain in VP. Koopman & Sportiche (1988) propose that all subjects are to be generated in SpecVP, with subsequent movement to SpecIP. Since the German/ZH subject can obviously receive Nominative case within the VP it has no reason to move to SpecIP, though. Unless it can be demonstrated that there is reason to assume two subject positions, with different syntactic properties. This is what Diesing (1992) attempts to show for German.

3.3.5. Diesing (1992) - two subject positions

Diesing (1992) assumes that the position of sentential particles like *ja* and *doch* are diagnostic of the S-structure position of the subject. She takes these particles to mark the left boundary of the VP. The subject can appear to the left or to the right of such particles. (I render her examples in ZH throughout):

99.   a. wil Ameise ja doch en Pöschtler pisse händ
       because ants PARTs e postman   bitten have

       b. wil ja doch Ameise en Pöschtler pisse händ
       because PARTs ants a postman bitten have

In (99a) the subject is taken to be in SpecIP, in (99b) in SpecVP. Since it is possible that the particles have moved rather than the subject, Diesing adduces

further evidence for her claim that these examples illustrate two different subject positions. Firstly, *was-für* split constructions are supposed to show a contrast between extraction from a pre- and a postparticle position:

100. a. Was für Ameise händ dänn en Pöschtler pisse?
          what for ants   have PART a postman bitten
          "What kind of ants have bitten a postman?"

      b. Was händ dänn für Ameise en Pöschtler pisse?

      c. Was händ für Ameise dänn en Pöschtler pisse?   (* in German)

(100a) illustrates fronting of the entire subject NP. In (100b) *was* has been split off and fronted on its own, leaving *Ameise* behind to the right of the particle, i.e. in SpecVP. If (100c) is ungrammatical, as Diesing assumes for German, it shows that *was*-extraction is not possible if the subject is to the left of the particle, in SpecIP. However, in ZH this is not the case. Secondly, split-topic constructions in German show the same contrast with respect to extractability. Here the ZH data do not pattern with Diesing's German data either, as there is no grammaticality contrast between (101a) and (101b):

101. a. Ameise$_i$ händ ja en Pöschtler vili t$_i$ pisse
          ants   have PART a postman many bitten

      b. Ameise$_i$ händ vili t$_i$ ja en Pöschtler pisse   (* in German)

A contrast between (101a) and (101b) would show that a subject to the right of the sentence particle and thus in SpecVP allows subextraction. In (101b) the subject is assumed to be in SpecIP and subextraction is expected to be impossible. Diesing then goes on to show that the position of the subject makes a difference to the availability of the generic and existential readings of bare plurals. If a bare plural subject is in SpecVP the existential reading is obtained, if it is in SpecIP the generic reading. Consider the contrast in readings in (102):

102.   a. wil ja doch Chind uf de Schtrass schpiled
           because PARTs kids on the street play
           "because there are kids playing in the street"

        b. wil Chind ja doch uf de Schtrass schpiled
           because kids PARTs on the street play
           "because (in general) kids play in the street"

Diesing now makes the following prediction with respect to the predicate types "stage-level" versus "individual-level.[14] A stage-level predicate allows the existential as well as the generic reading and its subject would thus be expected to occur in either SpecIP or SpecVP. The bare plural subject of an individual-level predicate, on the other hand, is predicted to appear in SpecIP, since only the generic reading is possible. (103) contains sentences with a stage-level predicate, (104) examples with an individual-level predicate:

103.   a. wil Profässore ja doch verfüegbar sind
           bec. professors PARTs available   are
           "because (in general) professors are available"

        b. wil ja doch Profässore verfüegbar sind
           bec. PARTs professors available are
           "because there are professors available"

104.   a. wil Wildsöi ja doch intelligänt sind
           bec. boars PARTs intelligent are
           "because (in general) boars are intelligent"

        b. wil ja doch Wildsöi intelligänt sind   (?* in German)
           bec. PARTs boars intelligent are
           "because (in general) boars are intelligent"

Her (German) (104b) is marked "?*", although she concedes that it becomes more acceptable with a marked intonation pattern defocusing the subject. But in any case the existential reading is supposed to be excluded in either variant in (104). Diesing argues that the subject of an individual-level predicate is base-generated in SpecIP and should not occur in SpecVP, which would

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[14] Cf. Carlson (1977), Kratzer (1988), Diesing (1988) and authors who label the distinction "thetic" vs. "categorical", viz. Sasse (1987), Drubig (1992).

explain the decreased acceptability of (104b). The subject of a stage-level predicate (cf. 103) is also generated in SpecIP and has two options. Either it remains in SpecIP and maps into the restrictive clause, in which case it is bound by a generic operator, thus yielding a generic reading, or it lowers into SpecVP in the mapping to LF, in which case it is part of the nuclear scope of the sentence and becomes bound by existential closure to give the existential reading. As far as ZH is concerned her predictions are not met, though, as (104b) is perfectly well-formed.

The contrast discussed by Diesing is not restricted to subjects (Fanselow 1993:54). That non-Nominative arguments can also occur before and after sentential particles without a difference in interpretation is shown in (105):

105. a. dass Wildsöi ja doch ghulfe wird
that boars$_{DAT}$ PARTs helped is
"that there is help provided to boars"

b. dass ja doch Wildsöi ghulfe wird
that PARTs boars$_{DAT}$ helped is
"ditto"

Thus the semantic effect cannot be due to the SpecIP position. It would furthermore have to be shown independently that everything to the left of a sentence particle is really outside VP. Otherwise we merely have evidence that the position of particles is relevant for the semantic interpretation of arguments. Haider (1993:231) also comments on Diesing and argues that she makes one assumption too many, viz. that the VP is the domain of nuclear scope and that sentential particles and sentence adverbs mark the VP boundary. According to Haider there is no reliable evidence to support such an assumption. It is however sufficient to recognise that the domain c-commanded by a sentential particle can be mapped to the nuclear scope, and Haider furthermore points out that it is in fact the semantic function of the particle to mark the nuclear scope within the verb projection. Interestingly, Haider speculates that English lacks such particles precisely because they can only occur before the VP, whereas German has positions available for them within the VP. Haider also shows that postulating a VP-internal and a VP-

external subject position on the basis of the particle position would imply that the infinitival complement in German (106a) is outside the verb projection and inside it in (106b), in spite of a lack of syntactic differences: as these examples show, *wh*-movement out of the infinitival complement is possible in either case:

106.   a. Wem$_i$ hat man [e$_i$ damit zu imponieren] denn damals beabsichtigt?
           who has one   with this to impress   PART then intended
           "Who has one then intended to impress with this then?"

       b. Wem$_i$ hat man denn [e$_i$ damit zu imponieren] damals beabsichtigt?

3.3.6. Further considerations and conclusions

The discussion in this subsection has not been conclusive with respect to the existence of a functional projection IP in the ZH middle field. In the absence of evidence in favour of an independent INFL projection the null hypothesis must be the rejection of such a projection.[15] The onus of proof rests on the proponents of IP and further functional projections, as they have been posited since Pollock (1989). Pollock suggests splitting IP into an Agreement projection and a Tense projection, on the basis of data involving French and English verb positions, data which have no parallels in ZH. Nevertheless, let us consider ZH agreement and tense briefly. Given that agreement is by nature a relation, it is not obvious that it should be assigned a position.[16] ZH displays

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[15] Cf. Bayer & Kornfilt (1990) for an interesting account in which German INFL is a morphological category that attaches to V, rather than a terminal syntactic category. In the spirit of Abney (1987) they suggest that V is the semantic and INFL the formal head of the clause, thus capturing Jackendoff's (1977) insight that V is the head of S without having to let S be a formal projection of V.

[16] Cf. Speas (1991) who points out that "AGR differs from other functional elements in that its distribution and its interpretation are dependent upon other constituents of the clause. Whereas Tense, Aspect, mood and negation occur only once in any given clause and are not dependent on some other constituent for their interpretation, AGR occurs in conjunction with some other constituent(s) and shares phi features with that constituent" (p.19), and "Further, while other functional heads occupy fixed positions, agreement has the property that it may spread onto every head in its domain" (p.19). "These considerations suggest that AGR is not

agreement between the subject and the finite verb, as well as between a head noun, its determiner and modifying adjectives. Infinitivals in particular do not exhibit any agreement, unlike in Portuguese for instance. Nor do infinitivals exhibit tense, unless one chooses to express the absence of finite inflection as [-tense]. In Chapter 5 it will be argued that ZH infinitival complements are VPs throughout. They are assumed to lack a functional projection because they do lack tense and agreement. Since there is no evidence for COMP in infinitivals either, it is plausible to take the COMP projection as characteristic of finite clauses. The COMP position in ZH can only ever be filled by a complementiser introducing a finite clause or a finite verb (cf. Chapter 4). This strongly suggests that COMP is the locus of tense - not of a tense feature which can be specified [+/-tense], but rather of a property [tensed].[17] In view of the phenomenon of complementiser agreement in a number of West Germanic languages and quite possibly also in ZH (cf. Chapter 3), it is arguable that there is an agreement relation between COMP and the subject, mediated by the spec-head relation between subject (SpecVP) and finite verb (V) one the one hand and between COMP and the finite verb on the other, by virtue of their shared feature [tensed]. The structure I therefore propose for the ZH subordinate clause is given in (107). The complementiser selects a tensed VP and the feature [tensed] percolates down to the head V. The subject is tentatively located in the specifier position of VP because of its agreement relation with the head of VP. The positions of the other arguments and adjuncts and the nature of the intermediate projections are discussed in the remainder of this chapter.

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itself a functional head. Rather, agreement is a relation between a head and its specifier, and this relation results in the head taking over the features of the specifier." (p.20).

[17] Cf. Platzack & Holmberg (1989) for the proposal that the Germanic V2 languages have Tense in COMP, and van Gelderen (1993), among others.

107. CP

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       CP
      /  \
   Spec   C'
         /  \
   C[tensed]  VP[tensed]
             /  \
          Subj.  V'[tensed]
                /  \
              Obj.  V'[tensed]
                   /  \
                Obj.   V'[tensed]
                        |
                      V[tensed]
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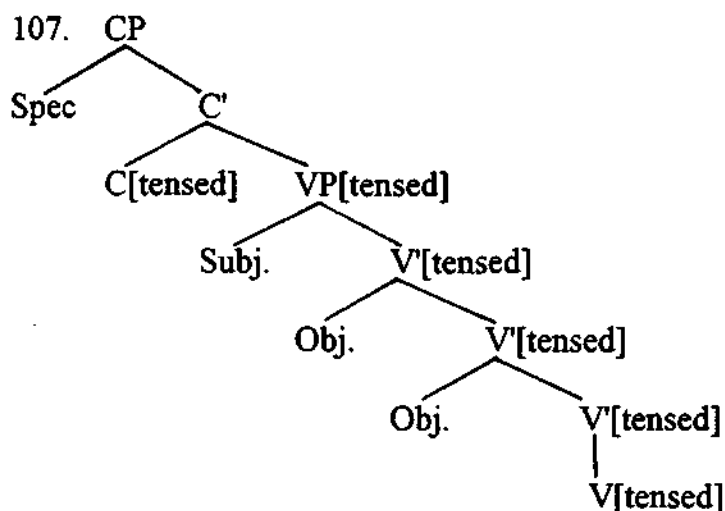
3.4. On scrambling and the structure of the VP

Fanselow (1993) argues that in German all arguments are sisters of VP. Applied to ZH this yields a structure as in (108):[18]

108. dass [$_{VP}$ de Peter [$_{VP}$ de Maria [$_{VP}$ es Bier [$_{VP}$ iigschänkt]]]] hät
   that   the Peter   the Maria   a beer   poured   has
   "that Peter poured Maria a beer"

This structure is motivated by the following considerations: a pro-form can be substituted for the verb alone, and pro-forms are usually reserved for maximal projections (109). Furthermore, the verb can be fronted on its own, to a position which is restricted to maximal projections (110):

·109. a. Hät er d Maria scho iiglade? - Nei, das hät er si nonig
       has he   Maria already invited   no, this has he her not yet
       "Has he invited Mary already?"   "No, he hasn't (this her) yet"

   b. Iilade, das würd er d Maria sicher
      invite, this would he Maria surely

---

[18] The exact position of the auxiliary is ignored here.

110. a. Iilade wott er d Maria
invite wants he Maria

b. Iiglade hät er d Maria
invited has he Maria

Indirect evidence, according to Fanselow, is further provided by the absence of subject/object asymmetries in extraction contexts. The following examples show that ZH subjects, objects and adjuncts can all be extracted from a *dass*-clause:[19]

111. a. Wer$_i$ glaubsch dass t$_i$ d Flüchtling verrate hät?
who thinkyou that the refugees betrayed has
"Who do you think that has betrayed the refugees"

b. Wer$_i$ glaubsch dass d Polizei t$_i$ verhaftet hät
who thinkyou that the police arrested has
"Who do you think that the police have arrested?"

c. Wo$_i$ glaubsch dass dää Mord t$_i$ passiert isch?
where thinkyou that this murder happened is
"Where do you think that this murder has happened?"

The data in (111) imply that no distinction can be made between subjects, objects and adjuncts with respect to the position of their trace, i.e. their base position. This shows that there are no ECP effects in ZH, as both subject and object position would be governed by the verb (cf. Haider 1981 on the absence of ECP effects in German).[20,21] Hence no argument can be derived for a subject position outside the verb projection.

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[19] Note that there is commonly no distinction made between subject and direct object *wer* in ZH, although the German Accusative form *wen* is now making inroads into the dialect.

[20] The pattern is the same in German (cf. Fanselow 1993, Haider 1993, Müller 1993), contrary to earlier claims made by Fanselow (1987). In certain Northern varieties of German, though, long subject extractions appear to be unacceptable. In fact, long movement out of complementiser-introduced clauses in general appears to be unacceptable in these varieties (cf. Riemsdijk 1989:113).

[21] Note that extraction out of finite complements is lexically driven in that it is only possible with a number of matrix verbs, generally referred to as "bridge verbs", such as *meine*, "think", *glaube* "believe", *tänke* "think", *wünsche* "wish", *hoffe* "hope", *behaupte* "claim".

The structure in (108) predicts fronting of the various VP segments, but it is at odds with (112d):

112. a. [$_{VP}$ ligschänkt] hät de Peter de Maria es Bier
   b. [$_{VP}$ Es Bier [$_{VP}$ iigschänkt]] hät de Peter de Maria
   c. [$_{VP}$ De Maria [$_{VP}$ es Bier [$_{VP}$ iigschänkt]]] hät de Peter
   d. [De Maria iigschänkt] hät de Peter es Bier

Den Besten & Webelhuth (1987, 1990) propose that structures like (112d) can be derived by scrambling the direct object *es Bier* out of the VP followed by fronting the partially emptied VP. The data in (110) are then accounted for the same way: a fronted verb is analysed as a VP out of which everything else has been scrambled. This approach has the advantage that it correlates the property of scrambling in German and Dutch (and dialects) with the property of remnant topicalisation, i.e. fronting of a partially emptied constituent.[22] No other Germanic languages display these two properties. (112d) is then assigned the following structure:

113. [$_{VP}$ De Maria [$_{VP}$ t$_i$ iigschänkt]]$_k$ hät de Peter [$_{VP}$ es Bier$_i$ [$_{VP}$ t$_k$]]

The fronted object trace must be properly governed. Fanselow (1993:10) points out that the verb cannot be the governor, or else the English construction (114) would be predicted to be grammatical, contrary to fact:[23]

114. .(he told me he would kiss somebody in the park, but)
   *[$_{VP}$ kiss t$_i$ in the park] I wonder who$_i$ he will

Since the verb cannot be the governor, the fronted trace in (113) must therefore be antecedent governed, and this would require reconstruction of antecedent government, specifically for certain German/ZH cases. Den Besten & Webelhuth (1990) set out to develop a theory according to which antecedent government of argument traces in base position can be reconstructed in

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[22] Note that remnant movement may also involve constituents other than VPs. Cf. Müller (1993:409ff) for a thorough discussion of German data.

[23] Fanselow's judgement of (114) as ungrammatical appears not to be shared by some native speakers.

German and Dutch, but not otherwise. This rather stipulative machinery becomes superfluous if it is assumed instead that the verb does not need to combine with its arguments in a given order, so that the fronted constituent in (113) does not include a trace. Fanselow (1993) proposes that there is no underlying linearisation of arguments in the middle field. (108) above is merely one possibility and a verb can in principle combine with its arguments in any order. This extends to subjects too, so that fronting the subject together with a verb is possible, as Haider (e.g.1986,1990) has repeatedly emphasised. The view that this is only possible with subjects or "ergative" verbs has meanwhile been revised (cf. Fanselow 1993:15). A few ZH examples are given in (115):[24]

115. a. En Ussesiiter ggune hät da no nie
          an outsider   won   has here yet never
          "An outsider has never yet won here"

      b. Es Kamel aagschpoitzt hät mich no nie
         a camel   spat at   has me yet never
         "A camel has never yet spat at me"

Alternatively, it could be argued that the elements in SpecCP are base-generated in this position rather than moved there from the middle field, and that their structure does not bear any relation to the structure of the middle field. An interpretative mechanism is then required which relates a fronted verb to its arguments in the middle field and vice versa.

3.4.1. Remnant VP movement

The above discussion has focused on cases of "remnant topicalisation". Such structures can be contrasted with cases of "remnant scrambling" (cf.

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[24] Certain constraints are operative in such constructions, though. In particular, there appears to be a definiteness effect (cf. Haider 1993, Fanselow 1993:15), hence.(ZH):
(i) *Dää Schpiler ggune hät da no nie
     this player won   has here yet never
(ii) Es Kamel aagschpoitzt hät mich no nie
      a camel spat at   has me yet never

Grewendorf 1992:34f, Müller 1993:409ff, Grewendorf & Sabel 1994:284ff). It appears that remnant categories, i.e. constituents containing unbound traces of scrambled elements, can be topicalised but not scrambled. These contrasts can also be observed in ZH:[25],[26]

116. a.. [$_{VP}$ t$_i$ Zfange]$_k$ hät [de Fuchs]$_i$ niemert probiert t$_k$
         to catch   has the fox   nobody   tried

   b. [$_{VP}$ t$_i$ Zfange]$_k$ hät niemert [de Fuchs]$_i$ probiert t$_k$
      to catch has nobody the fox   tried

   c. [$_{VP}$ Probiert t$_i$ zfange]$_k$ hät [de Fuchs]$_i$ niemert t$_k$
      tried   to catch has the fox nobody

117. a.?*dass [$_{VP}$ t$_i$ zfange]$_k$ [de Fuchs] niemert probiert hät t$_k$
         that   to catch   the fox   nobody tried   has

   b.?*dass [$_{VP}$ t$_i$ zfange]$_k$ niemert [de Fuchs]$_i$ probiert hät t$_k$
      that   to catch nobody   the fox   tried has

   c.*dass niemert [$_{VP}$ t$_i$ zfange]$_k$ [de Fuchs]$_i$ probiert hät t$_k$
      that nobody   to catch   the fox   tried   has

Proponents of a remnant movement approach assume that the infinitive *zfange* is moved together with the object trace (=remnant VP), the object *de Fuchs* having scrambled out of the constituent prior to remnant movement. It must then be explained why in (116) an unbound trace in SpecCP does not produce ungrammaticality, while in (117) unbound traces in the middle field are apparently not possible. Note that scrambling of the object is grammatical, as is scrambling of the entire VP:

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[25] I assume here that infinitival complements are VPs, contra Grewendorf & Sabel (1994), and that the underlying structure of infinitival complements is different from German. Cf. Chapter 5 for justification.

[26] Although (117a/b) are marked "?*", I am not sure whether they are really that bad. There is definitely a contrast to (117c). Note that Müller (1993a:28) marks the German example (i) which involves an unstressed pronoun in pre-subject position as merely "?"(cf. also Haider 1990) whereas. J. Sabel (p.c.) considers (i) ungrammatical:

(i) ?dass zu lesen es keiner versucht hat
    that to read it nobody tried has
    "that nobody has tried to read it"

118.   a.   dass [de Fuchs]ᵢ niemert probiert hät tᵢ zfange
            that the fox   nobody tried has to catch

       b.   dass [de Fuchs zfange]ₖ niemert probiert hät tₖ
            that the fox to catch   nobody tried has

It is immediately obvious that the structures in (117) are ungrammatical because the direct object *de Fuchs* is on the right rather than left side of its governing verb *zfange*. That this is not the whole story, though, is evidenced by examples like (119a):

119.   a.   *dass de Fuchs mal wieder zfange niemert probiert hät
            that the fox once again to catch nobody tried has
            "that once again nobody has tried to catch the fox"

       b.   Niemert fangtᵢ de Fuchs tᵢ
            nobody catches the fox

Given that [*de Fuch zfange*] forms a VP, the generalisation seems to be that a VP can only be scrambled as a whole in the middle field. This constraint does not apply to fronting, as (116) show. Likewise, it does not apply when the verb moves to COMP, as in (119b). The data in (117) can be taken to suggest that scrambling is not movement but base-generation, whereas SpecCP is filled by movement. The following section considers further arguments in favour of scrambling as movement.

3.4.2. Binding and scope

In his analysis of syntactic conditions of interpretation in German, Frey (1993:29) takes c-command to be the essential condition for binding. In (120a/b) the subject c-commands the object but not vice versa, and in (121a/b) the indirect object c-commands the direct object but not vice versa. Frey's examples are rendered in ZH:

120. a. dass jede Maa$_i$ sis$_j$ Auto liebt
      that every man$_i$ his$_j$ car loves

      b.*dass sini$_j$ Sekretärin jede Chef$_i$ bewunderet
      that his$_j$ secretary every boss$_i$ admires

121. a. dass si jedem$_i$ sini$_j$ Fründin defür empfole hät
      that she everyman his girlfriend for this recommended has

      b.*dass si sinere$_j$ Fründin jede$_i$ defür empfole hät
      that she his$_j$ girlfriend everyman for this recommended has

Frey assumes that the base order of arguments is lexically determined by the verb, and varies between verbs. For instance the verbs *empfäle* "recommend" and *zeige* "show" project their arguments in the order Nom>Dat>Acc, whereas *überlassen* "leave to, abandon" projects the base order Nom>Acc>Dat. Other linearisations are derived by scrambling. These different base orders are crucial in explaining the following contrast Frey observes in German:

122. *Ich zeigte den Hans$_i$ sich$_i$ t$_i$ im Spiegel
      I showed the H. REFL in the mirror
      "I showed Hans himself in the mirror"

123. Er hat das Kind$_i$ sich$_i$ überlassen
      he has the child REFL leave to
      "He has left the child to himself"

Since *zeigen* projects its arguments in the order Nom>Dat>Acc, the Accusative *den Hans* must have scrambled across the reflexive in (122). The trace is c-commanded by a coindexed phrase and a principle C violation results. (Frey argues that traces are relevant for principle C.) In (123) no such violation is observed because the base order of arguments is Nom>Acc>Dat, hence no movement has taken place and the problem does not arise. This argument is compelling if one considers binding facts to be syntactic phenomena, and if one agrees with the judgement that (122) is ungrammatical. Grewendorf (1988:58) for instance does not agree. His German example (124) is given as a grammatical structure, and the corresponding ZH data (125) certainly are well-formed to me.

124. Der Arzt zeigte den Patienten$_i$ sich$_i$ im Spiegel
the doctor showed the patient$_i$ REFL$_i$ in the mirror

125. a. Ich zeig de Hans$_i$ sich$_i$ im Schpiegel
I show the Hans$_i$ REFL$_i$ in the mirror

b. De Tokter zeigt de Patiänt$_i$ sich$_i$ im Schpiegel
the docotr shows the patient$_i$ REFL$_i$ in the mirror

I conclude that Frey's binding argument is not conclusive for ZH. A second potential argument in favour of a base order in the middle field has to do with scope. Frey (1993:179) points out the following subject/object asymmetries, rendered in ZH:

126. a. Vili Mane händ mindeschtens einere Frau de Hof gmacht
many men have at least one woman courted
(i) For many men is it the case that they were courting at least one woman"
(ii) For at least one woman is it the case that many men were courting her"

b. Mindeschtens einere Frau händ vili Mane the Hof gmacht
at least one woman have many men courted
(i) and (ii) as above

(126a) has a first reading with wide scope of the subject, and if *einere* is emphasised, it has a second reading with wide scope of the object. (126b) on the other hand has both readings without any special intonation. If verum focus is employed, i.e. stress is placed on the finite verb, (126a) only receives the first reading. In a footnote Frey refers to Williams (1988:143) who notes that in the English example *Someone loves everyone* the object must be stressed in order to take wide scope. Nevertheless, discussions of English scope effects usually include such intonation and the resulting reading. Frey however focuses on those readings which can be obtained without any special intonation. The asymmetry between subject and objects with respect to intonation requires an explanation. I do not consider it plausible, though, to disregard certain structures or readings in the syntax purely because they are coupled with a certain intonation. The objections I have raised in section 2 above apply here too, if perhaps to a lesser extent, since we are dealing with

interpretation only: It is unclear how structures with particular intonation contours are to be generated and dealt with if they have already been excluded the first time round.

As concerns objects, Frey makes the following observations. Without special intonation, i.e. employing verum focus, two readings can be obtained in (127a), whereas (127b) only admits the reading which corresponds to the surface linearisation (if the direct object is stressed, it can take scope over the indirect object though). In (128) the situation is reversed: (128a) admits both readings, and (128b) admits one reading, on a neutral intonation (again, if the indirect object is stressed, it can take scope over the direct object). Frey's examples are rendered in ZH:

127. a. dass er mindeschtens eis Gschänk fascht jedem Gascht git
          that he   at least   one   gift   almost every guest gives
(i) "that for at least one gift it is the case that he gives it to almost every guest"
(ii) "that for almost every guest it is the case that he gives him at least one gift"

      b. dass er mindeschtens eim Gascht fascht jedes Gschänk git
         that he   at least   one guest almost every   gift   gives
(i) "that for at least one guest it is the case that he gives him almost every gift"
(ii) "that for every gift it is the case that he gives it to at least one guest"

128. a. dass er fascht jedem Tescht mindeschtens ein Bewerber unterzieht
          that he almost every test   at least   one applicant subjects
(i) "that for almost every test it is the case that he subjects at l. one appl. to it"
(ii) "that for at l. one appl. it is the case that he subjects him to almost ev. test"

      b. dass er mindeschtens ein Bewerber fascht jedem Tescht unterzieht
         that he   at least   one applicant almost every   test   subjects
      (i) and (ii) as above

This pattern is predicted by Frey because he posits two different base orders for these two different verbs, viz. for the verb *gää* "give" Nom>Dat>Acc, and for the verb *unterzie* "subject to" Nom>Acc>Dat. It is clear from this short discussion that on Frey's account the syntactic conditions for scope are different from those for binding: Scrambling increases the scope options, since the option of the non-moved constituent is preserved, i.e. the trace is relevant

for scope.[27] However, his arguments are not conclusive if the data are expanded to include all intonational possibilities. It is plausible to assume that with a verb like *gää*, "give", the subject generally precedes the indirect object which in turn precedes the direct object, but this does not follow from syntactic facts and it is thus not obvious that it should be reflected in the syntax.

From the discussion so far I conclude that there is no solid syntactic evidence for a single base structure (per verb) and a scrambling process which derives all alternative orders. If the subject tends to occur before other arguments it need not be for syntactic reasons. Nevertheless, I will assume in the remainder of this dissertation that the subject is generated in middle-field-initial position, i.e. in SpecVP. There are a few indications that the subject occupies a ·prominent structural position, before the other arguments. It appears that two objects can be fronted together, but not a subject with an object - recall (65) from 3.2. above:

129. a. Sine Neffe d Schparsou hät de Donald gchlaut
          his nephews$_{DAT}$ the piggy-bank has the D. stolen
          "Donald stole the piggy-bank from his nephews"

      b. De Maria es Bier hät de Peter iigschänkt
          the M.$_{DAT}$ a beer has the P. poured
          "Peter poured Maria a beer"

      c.*De Peter es Bier hät de Maria iigschänkt
          the P. a beer has the M.$_{DAT}$ poured
          "Peter poured Maria a beer"

      d.*De Peter de Maria hät es Bier iigschänkt
          the P. the M.$_{DAT}$ has a beer poured
          "Peter poured Maria a beer"

Interestingly, (129a) may be used as an answer to the question "What has Donald stolen?", (129b) as an answer to "What has Peter poured?", i.e. the

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[27] For further details the reader is referred to Frey (1993).

Dative object appears to be attached to the Accusative.[28] It is obvious that such structures cannot be derived by means of remnant fronting. Not even in a flat structure do the two objects ever form a constituent together. It is at least conceivable that they can "cluster" together under certain conditions, though. Without exploring what these conditions are and leaving it as a mere speculation, it can be assumed that clustering requires structural closeness, which appears to be more likely between objects than between subject and object. This provides at least a hint at a structure in which the subject is somehow prominent and set apart from the objects. As for clustering, examples of clitic clusters and verb clusters will be discussed in Chapters 3 and 5 respectively.

Without taking a definitive stand on the issue of scrambling, I propose that the clause structure looks as follows (cf. 107), and that direct and indirect object can in general be generated in either the higher or the lower VP-adjoined position, with the subject occurring in SpecVP:

130.   [CP C [VP Subj [VP Obj [VP Obj [VP V]]]]]

4. Summary and outlook

Sections 1 and 2 of this chapter dealt with the question whether linearisation tells us anything about the syntactic structure of the middle field. In particular, two clause structures were considered, (4a) and (4b), repeated here as (131a) and (131b).

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[28] It may seem that examples like (129a/b) can be explained on analogy with the possessive construction (i) (cf. Chapter 1, fn. 7):

(i) de Maria ires Bier
the M.DAT her beer
"Maria's beer"

But it seems to me that examples like (ii) are also possible, which rules out such an explanation:

(ii) De Maria mis Bier hät er wele berächne
the M.DAT my beer has he wanted charge
"He wanted to charge Maria for my beer"

131. (a) S'
```
            S'
           /  \
          C     S
          |    /|\___
        dass  NP NP NP  V'
                       / \
                      V   V
```

(b) CP
```
            CP
           /  \
        Spec   C'
              /  \
             C    IP
                 /  \
               VP    I'
              /  \    \
            NP    V'    I
                 / \
               NP   V
```
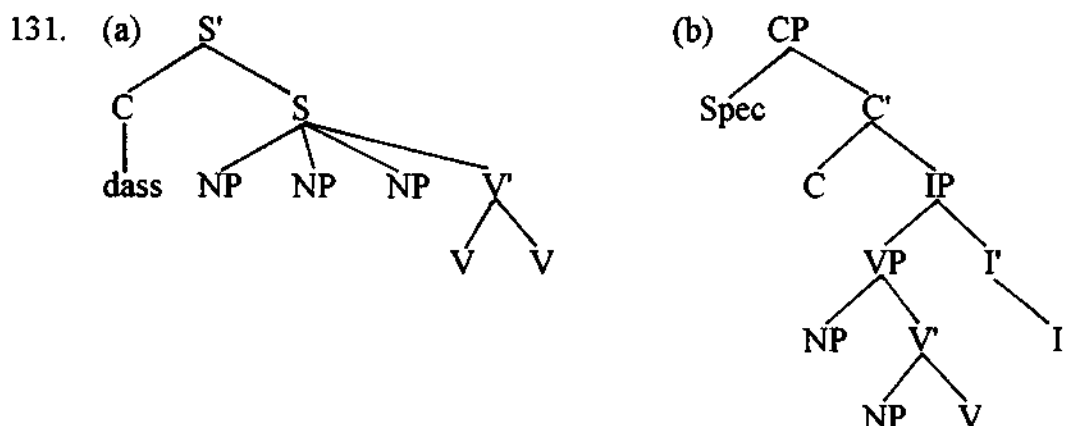
It was argued that the middle field linearisation of constituents in ZH suggests a structure as in (131a), where the order of NPs is assumed to be free. This is somewhat unexpected, given that the case morphology of ZH is more reduced than in German. It was shown that case ambiguities do not restrict word order. Intonation plays a role and interacts with other conditions such as definiteness, theme/rheme and overtly stylistic tendencies such as the "law of growing constituents" and the "sentence bracket condition". However, it was concluded that these are pragmatic matters and as such they cannot influence which strings the syntax must generate and which strings it must exclude. It was discussed how Höhle relates "normal word order" to "focus potential", i.e. the potential of a sentence to occur in a maximum number of contexts. Such notions lie outside the syntax and belong to language usage. It is the task of pragmatics to relate linearisations to contexts, while the syntax must ensure that all possible linearisations are available to begin with. It is possible, though, that several aspects of grammar are dealt with simultaneously. The monorepresentational approach of Categorial Grammar comes to mind, and attempts which reduce syntax to PF (Reape 1990) or to intonation structure (Steedman 1994).[29]

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[29] Steedman (1994) argues that syntactic constituents conform to prosodic constituents. Intonation structure and surface structure are identical, giving rise to "unusual constituents" as in (i):

(i) I know that Ann admires opera. But what does Mary admire? [Mary admires] musicals.

The subject of section 3 was the structure of the middle field, in particular whether there is syntactic evidence for a subject-exclusive VP. Coordination data indicate that the middle field displays a binary branching structure rather than a flat one. However, coordination data are notoriously unreliable. Fronting data by and large also suggest binary branching, although there are data which cannot be handled straightforwardly. Since standard constituent tests were not as revealing as expected, the discussion turned to evidence for and against a functional projection in the middle field. We saw that there is no good evidence for INFL, nor are there any good arguments in favour of a designated subject position SpecIP. In the absence of evidence for IP, the null hypothesis must be to assume no functional projection. "Remnant movement" data suggest that there is movement to SpecCP, but not within the middle field.[30] Binding and scope data show up asymmetries between subject and object and between direct and indirect object, but only if we abstract away from intonation. The clause structures I proposed in (107) and (130) place the subject at the beginning of the middle field, and leave open the relative order of objects. The structure envisaged thus lies somewhere between (131a) and (131b).

I would like to end this chapter with a few speculations. A flat structure could be combined with a hierarchical one if certain assumptions about clause structure are given up, along the lines of Czepluch (1993, 1994). Czepluch assumes for English (!) that the grammar principles yield a flat VP, and that more structure arises when substitution, deletion or coordination require more structure, by virtue of the principle that grammatical rules and processes can only refer to constituents (the Constituency Principle). He admits a limited amount of structuring flexibility, which makes it superfluous to capture all possible constituents in one structure, and he argues that the excessive use of c-command, in which all asymmetric relations are spelled out as asymmetric c-command relations, is problematic. Instead, a linearity condition should be invoked to complement c-command and to be applied in cases of symmetric c-command. Employing linearity as a relevant grammatical factor implies the

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[30] It will be argued in Chapter 5 that there is movement into the middle field, though.

existence of multiply branching structures. Binary branching may be appropriate for functional categories but not for lexical categories.

Chapter 3: Personal pronouns and null referential subjects

0. Introduction

This chapter deals with personal pronouns in ZH and distinguishes between full and reduced forms (clitics). A further distinction is made between lexical and phonological clitics. Section 1 looks at evidence for the clitic status of reduced pronouns. A descriptive account of the morphophonology and syntax is given, followed by an analysis which treats subject clitics as lexical clitics, in most contexts, and object clitics as phonological clitics. Section 2 is concerned with the phenomenon of referential null subjects in parts of the ZH verbal paradigm, viz. the second person singular and, in certain contexts, the first person singular. It is argued that these apparent null subjects are to be analysed as clitics with zero phonetic form and should be treated as lexical items.

1. Pronominal clitics[1]

1.1. Morphophonology

Table (1) presents the ZH personal pronouns, with a distinction made between strong pronouns, weak pronouns, and what shall be called clitics (cf. Cardinaletti 1992). The distinction between proclitic and enclitic forms will become relevant in 1.3. The difference between the strong and weak forms involves vowel length, at least in some cases, e.g. *eer* vs *er, miir* vs *mir*; in other cases this possibility is not given, e.g. the 1. and 2. person plural object pronouns show no difference in form between strong and weak. In addition, the strong pronouns receive stress, which is indicated by capital letters if it is the only difference to their weak counterparts. The difference between weak pronouns and clitics consists in shortening. A final consonant disappears, as in *ich* vs *i* or *dich* vs *di*, or an initial vowel disappears, as in *es* vs *s* or *er* vs *r*. In

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[1] An earlier version of parts of section 1 was presented at the European Science Foundation workshop on clitics at Durham University, October 1993, cf. Cooper (1994a).

this last case one could also say that *e* turns into a schwa. In the case of *mir* vs *mer*, *ire* vs *ere*, etc., the vowel *i* turns into *e* or schwa (*e* and schwa are not distinguished in the orthography).

1. ZH personal pronouns

		strong	weak	proclitic	enclitic	
SINGULAR						
1	Nom	iich	ich	ch-	-i/-0	0 = zero
	Acc	miich	mich		-mi	
	Dat	miir	mir		-mer	
2	Nom	dU	du	0-	-0	0 = zero
	Acc	diich	dich		-di	
	Dat	diir	dir		-der	
3m	Nom	eer	er	r-	-r	
	Acc	iin	in		-en	
	Dat	iim	im		-em	
3f	Nom	sii	si	si-	-si	
	Acc	sii	si		-si ?	
	Dat	ire	ire		-ere,-re	
3n	Nom	ees*	es	s-	-s	*) animate
	Acc	iins*	ins*		-s	only
	Dat	iim*	im*		-em	
PLURAL						
1	Nom	miir	mir	mer-	-mer	
	Acc	Ois	ois			
	Dat	Ois	ois			
2	Nom	iir	ir	er-	-er	
	Acc	Oi	oi			
	Dat	Oi	oi			
3	Nom	sii	si	s-	-s	
	Acc	sii	si		-s	
	Dat	Ine	ine		-ene,-ne	

From table (1) it is not obvious that clitics have their own lexical entries, and are not simply derived phonologically from the full forms, just as the strong and weak forms appear as if they were two instantiations of the one lexical item, with the strong forms derived from the weak ones by a process of lengthening and/or emphasis.

The forms alone do not provide any clues to the status of the different types of pronouns, in contrast to the clitic pattern in the dialect of Bern, discussed by Penner (1991). He argues that the Bernese clitics cannot be derived from their full forms, as there is no rule of "de-rounding" (*Entrundung*) in this language which would produce the alternation given in (2):

2. Bernese

		stressed	clitic	
- 1.PL.	Acc/Dat	üüs	is	
2.PL.	Acc/Dat	öich	nech	(Penner 1991:254)

The ZH pronouns display no comparable de-rounding. There is however in both Bernese and ZH a morphophonemic idiosyncrasy found only with clitics and not with weak or strong pronouns: so-called N-insertion. Penner observes that *n* is inserted to avoid hiatus between two vowels *o* and *i*. This rule appears to be obligatory in Bernese, as the examples in (3) show (the inserted *n* is capitalised):

3.   a. *ds Huus wo-i wohne   Penner (1991:255f.)
       the house REL I live
       "the house where I live"

    b. ds Huus wo-N-i wohne

    c. dr Chueche wo-si-N-is gmacht het
       the cake REL she for us made has
       "the cake (that) she made for us"

In ZH, N-insertion between an element in COMP and a clitic is possible but not obligatory, as illustrated in (4). It is not possible in front of non-clitic pronouns (5a). (6) shows that N-insertion is also found between prepositions

and clitics. N-insertion is reminiscent of t-insertion between verb and clitic in French, as in *va-t-il*, which can be regarded as a phonological reflection of the clitic's attachment to the verb (Kayne 1975:91).

4.   a. s Huus wo-i wohne
      b. s Huus wo-N-i wohne
         "the house where I live"

5.   a.*wo-si-N-in gsee hät
         when she him seen has
         "when she saw him"

      b. wo-si-N-en gsee hät
         when she him seen has
         "when she saw him"

6.   ich gang jetz zu-N-ere
      I   go   now to her
      "I'm now going to her"

N-insertion is furthermore possible in front of certain clitic determiners, which happen to be homonyms of clitic pronouns. As (7d) shows, N-insertion is not always possible in front of the determiner *en*. With determiners it is in fact confined to the context COMP__DET, as can be seen in (7). (7d) shows that N-insertion is not possible in between a clitic pronoun and a clitic determiner, even if the determiner is homophonous with a clitic pronoun.

7.   a. wo-N-en Hund vor de Tür gschtande isch
         when a dog before the door stood is
         "when a dog stood at the door"

      b.*wo-N-ein Hund vor de Tür gschtande isch
         "when one dog stood at the door"

      c.*wo-N-acht Hünd vor de Tür gschtande sind
         "when eight dogs stood at the door"

      d.*wo-si-N-en Hund gsee hät
         when she a dog seen has

N-insertion can be regarded as a diagnostic for clitic-hood (albeit only for clitics with an initial vowel). The fact that it is not possible before *ois* and *oi* suggests that there are no clitics *ois* and *oi*.[2] However, since N-insertion is also found with indefinite determiners, it is plausible that we are dealing with a phonological phenomenon which is confined to COMP.[3] So far, we have no evidence that the forms listed as "clitics" in Table (1) could in fact be separate syntactic entities. The standard Kayne tests (cf. Kayne 1975) are not revealing either, because they yield equal results for clitics and weak pronouns: neither clitics nor weak pronouns can be modified, conjoined, or used in isolation. The Kayne tests have often been used to argue that weak pronouns are heads and not phrases. However, it seems to me that they only establish whether certain elements are weak, or dependent, from which we cannot necessarily conclude that they must be heads.

1.2. Syntax

Penner notes that Bernese pronominal clitics are placed either in the Wackernagel position, i.e. the second position in the clause, or suffixed to prepositions. Leaving aside prepositional phrases, he suggests that in the unmarked case clitics attach to COMP. A phrase may intervene between COMP and the clitic, but it is said to be difficult for anything other than a subject to intervene. His Bernese examples are given in (8) and (9):

8. a. geschter het-er-nech-s zeigt   Bernese, Penner (1991:253)
        yesterday has-he-to you-it shown
        "Yesterday he showed it to you."

    b. i weiss wo-s-dr Vater verloore het
       I know where-it the father lost has
       "I know where father has lost it."

---

[2] It is equally possible, though, that N-insertion does not apply before the vowel *o*.
[3] N-insertion is also possible after another functional category, P., in the context of a prepositional phrase, as in (i). Clitics in PPs will not be discussed in this chapter.
(i) Mer gönd zuc-N-em
    we go   to-N-him

9.   a. i weiss dass dr Vater-s gmacht het   Bernese, Penner (1991:257)
         I know that the father-it made has
         "I know that father has made it."

     b. ??i weiss dass morn-s dr Vater bringt
         I know that tomorrow-it the father brings
         "I know that father will bring it tomorrow."

     c. *i weiss dass doch-s dr Vater bringt
         I know that PART-it the father brings
         "I know that father will surely bring it"

Clitic placement in ZH is considerably less constrained than it seems to be in Bernese. In particular, it is possible to cliticise to the subject regardless of the position the subject takes relative to other constituents, cf. ZH (10). It is thus not a matter of a subject being allowed to intervene between COMP and the clitic. Rather, clitics are not confined to COMP, as they seem to be in Bernese. It is not evident from Penner's data, though, whether Bernese totally rules out these further possibilities. If it does, the two dialects are remarkably different in this respect.

10.   a. Ich weiss dass morn de Vater-s bringt
          I   know that tomorrow the father-it brings
          "I know that father will bring it tomorrow"

      b. dass em Peter de Vater-en sött vorschtele
          that to Peter the father-him should introduce
          "that father should introduce him to Peter"

      c. dass ois villicht dänn de Vater-en sött vorschtele
          that to us perhaps then the father-him should introduce
          "that father should then perhaps introduce him to us"

The possibility of having the clitic so far away from COMP brings to mind the situation in West Flemish, as described by Haegeman (1991). In West Flemish, clitics can occur between nominal arguments according to the pattern in (11) (disregarding ECM constructions):

11.   C   CLSU   NPSU   CLIO   NPIO   CLDO   NPDO

(11) is to be understood as follows: each clitic can also occur in a clitic position further to the left from where it c-commands its canonical position, i.e. the direct object clitic has a total of three positions available, the indirect object clitic has two, and the subject clitic can only occur adjacent to COMP. Haegeman assumes a structure with a recursive AGR projection such that everything moves out of the VP. Nominal arguments move to the specifier positions of the recursive AGRP while clitics are hosted by C and the recursive AGR, such that a clitic always appears to the left of the position of its corresponding NP. The structure she assumes is given in (12):

12.

```
          CP
         /  \
      Spec   C'
            /  \
           C    AGRP
               /   \
            Spec    AGR'
                   /   \
                 AGR    AGRP
                       /   \
                    Spec    AGR'
                           /   \
                         AGR    AGRP
                               /   \
                            Spec    AGR'
                                   /   \
                                  TP    AGR
                                 /  \
                               VP    T
```
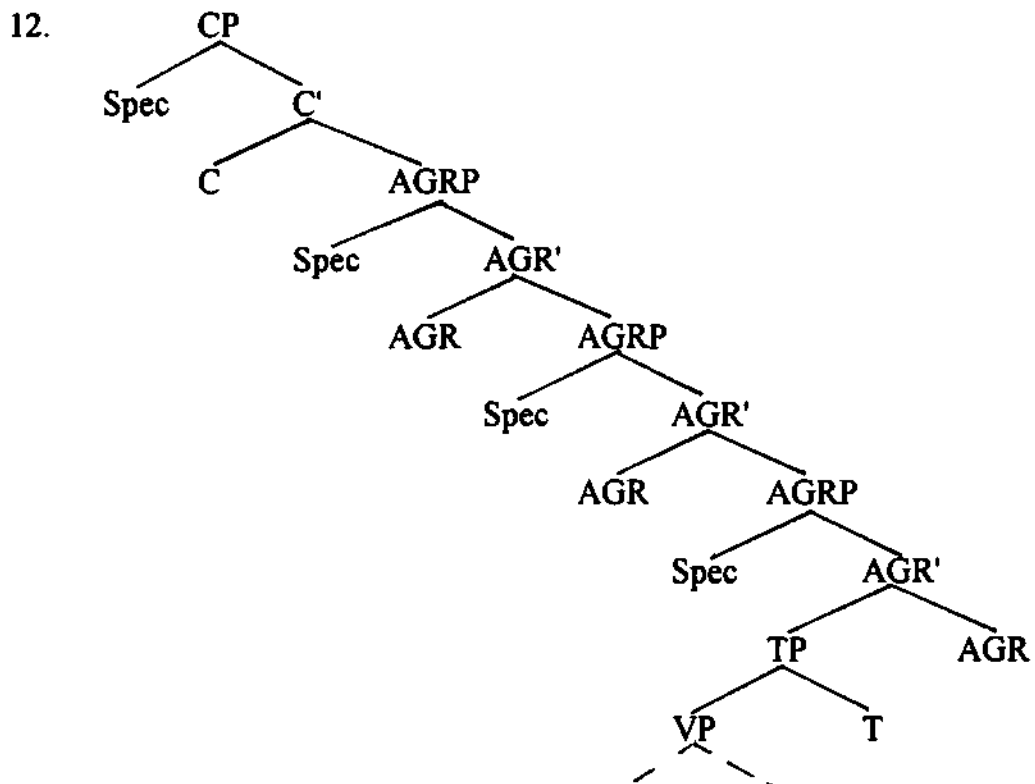
Haegeman (1991, 57) suggests that the lowest AGR projection is head-final. The verb moves via T to the lowest AGR, while the two higher AGRs and COMP host the clitics. A similar proposal for West Flemish is made by Zwart (1992a), in a response to Haegeman's paper, in which he also moves all arguments - clitics and nominals alike - out of the VP and into functional projections. Zwart advocates head-initial projections only, and in particular argues for a structural difference between subject- and non-subject-initial clauses, i.e. he suggests that subject-initial clauses are IPs (AgrSPs in his

account) while non-subject-initial clauses are CPs. He employs a structure which splits the IP into the three projections AgrSP, TP‾ and AgrOP. I will ignore these technical differences for the moment, but focus on what the two proposals have in common, viz. the assumption that all arguments, and particularly clitics, must leave the VP, and I want to show that this is is not necessarily the case in ZH.

1.2.1 Clitics inside VP

I assume that within the head-final VP the base-generated order of arguments is subject - indirect object - direct object, with the subject located in SpecVP. For the examples in (13) the minimal assumption is thus that all arguments remain within the VP. (13a) is the underlying subclause order, and (13b) is the corresponding main clause with verb second, i.e. the verb has been moved to COMP and the adverb *morn* has been fronted.

13.   a. wil ja morn sicher de Hans de Chind e Gschicht verzellt
          because PART tomorrow surely the Hans to the kids a story tells
          "because Hans will surely tell the kids a story tomorrow"

          b. Morn verzellt ja sicher de Hans de Chind e Gschicht.
          tomorrow tells PART surely the Hans to the kids a story
          "Tomorrow Hans will surely tell the kids a story"

In (14), clitic pronouns are substituted for the objects NPs. Weak and strong pronouns are equally possible in these positions.

14.   a. wil ja morn sicher de Hans-ene e Gschicht verzellt
          because PART tomorrow surely the Hans to them a story tells
          "because Hans will surely tell them a story tomorrow"

          b. wil ja em Peter morn de Hans-en vorschtellt
          because PART to the Peter tomorrow the Hans him introduces
          "because Hans will introduce him to Peter tomorrow"

          c. wil ja morn sicher de Hans-em-s verzellt
          because PART tomorrow surely the Hans to him it tells
          "because Hans will surely tell him this tomorrow"

If the subject itself is a strong pronoun (indicated by capitals) or a weak pronoun it can remain in its base position, as (15a) shows. If it is a clitic it cannot remain in this position (15b) but must move to COMP (cf. below):

15.   a. wil ja morn ER/er-em-s verzellt
       because PART tomorrow HE/he to him it tells
       "because HE will tell him this tomorrow"

       b.*wil ja morn-r-em-s verzellt

Given the clause structure established in Chapter 2, with the subject in SpecVP and modal particles and adverbs occurring at various positions within the VP, there is no structural difference between arguments occurring on the right or left of particles. The examples in this section nevertheless contain particles in order to show that the subject can occur on the right of these, as can object clitics if there is a suitable host available to them (cf. 1.2.2. below). Notice that nothing is gained if particles are assumed to mark the VP boundary. There is no difference in behaviour between subjects in pre- and post-particle position. To illustrate, consider the phenomenon of *was-für*-splitting, which is generally taken to be possible with objects and with VP-internal subjects, is possible with subjects in either position, as the data in (16) show.

16.   a. Was händ dich dänn [t für Lüüt] interviewt?
       what have you then   for people interviewed
       "What kind of people interviewed you, then?"

       b.Was händ [t für Lüüt] dich dänn interviewt

       c.Was händ dich [t für Lüüt] dänn interviewt

1.2.2 Object clitics in the middle field

This section shows that clitics can remain in their base position in the VP, provided they are adjacent to the subject. The object clitics cannot be separated from the subject by a particle. (18) illustrates what I take to be the

VP-internal position of negation. (cf. Haider (1993) who assumes that German negation marks the left edge of the verbal complex rather than that of the VP as in languages such as English).

17.   a.   Wahrschiinli händ ja d Eltere-der-s verzellt
                probably   have PART the parents to-you it told
                "The parents have probably told you this"

      b.*Wahrschiinli händ d Eltere ja der-s verzellt

      c.   Wahrschiinli händ d Eltere-der-s ja verzellt

18.   a . Wahrschiinli händ d Eltere-s-der ja nöd verzellt
                probably   have the parents it to-you not told
                "The parents have probably not told you this"

      b.*Wahrschiinli händ d Eltere nöd der-s verzellt

If the subject is a weak pronoun it may remain in its base position (19a), but if it is a clitic it cannot stay there (19b) and must move to a position adjacent to COMP taking the object clitics along, as it were (19c), or leaving them behind (19d), or both (19e):

19.   a.   Wahrschiinli händ darum si-der-en nöd vorgschtellt
                probably   have therefore they to you him not introduced
                "They've probably not introduced him to you for that reason"

      b.*Wahrschiinli händ darum-s-der-en nöd vorgschtellt
      c.   Wahrschiinli händ-s-der-en darum nöd vorgschtellt
      d.   Wahrschiinli händ-s darum-der-en nöd vorgschtellt
      e.   Wahrschiinli händ-s-der darum-en nöd vorgschtellt

To recapitulate, a subject clitic cannot remain in base position, but object clitics can. Furthermore, an object clitic can follow an indirect (20) or direct object NP (21). That the object NP has moved from its base position in the (a) examples is indicated by the position of the modal particle *doch*:

20.   a. wil ja de Hans em Vreni-mi doch vorschtele wott
                because PART the Hans to the Vreni me PART introduce wants
                "because Hans wants to introduce me to Vreni"

b. wil ja de Hans doch em Vreni-mi vorschtele wott⁻

21.   a. wil ja de Hans s Vreni-mer doch vorschtele wott
        because PART the Hans the Vreni to me introduce wants
        "because Hans wants to introduce Vreni to me"

       b.wil ja sicher de Hans s Vreni-mer vorschtele wott

In earlier presentations of this material I stated that clitics may not immediately follow adverbials. It now seems to me that this constraint is restricted to modal particles and negation, for obvious reasons, as they require the following constituent to be focused. Examples like (22) are thus grammatical. (Consider also the contrast noted by Penner between the adverb *morn* and the particle *doch* in Bernese (9b) versus (9c) above.)

22.   a. wil ja sicher de Hans morn-mi vorschtellt
       because PART surely the Hans tomorrow me introduces
       "because Hans will surely introduce me tomorrow"

       b. dass de Peter em Vreni wahrschiinli-en gern würd vorschtele
        that the Peter to the Vreni probably him would like introduce
        "that Peter would probably like to introduce him to Vreni"

       c. Das händ d Eltere uf all Fäll-mer nonig verzellt
        this have the parents in any case to-me not yet told
        "The parents have in any case not told me this yet"

Interestingly, Haegeman (1993:13) notes for West Flemish that contrary to her earlier data judgements, it is not always the case that clitics must precede all adverbials. In particular, a clitic to the right of an adverb becomes acceptable if it is followed by yet another adverb. Hence the curious contrast in (23) (her (31a) and (33a)):

23.   a.*da Valere verzekerst Marie t gegeven eet
       that Valere probably Marie it given has

       b. da Valere verzekerst Marie t a/nog/we gegeven eet
        that Valere probably Marie it already/still/well given has

Summing up this section, object clitics can appear in the same positions as weak and strong object pronouns and they can follow argument NPs as well as adverbs. As shown in the preceding section, subject clitics are distinct from their full counterparts in that they must move to a COMP-adjacent position. Clitics in this position are discussed in the following section.

1.2.3 Clitics adjacent to COMP

Both subject and object clitics can occur right-adjacent to COMP. If two object clitics occur in a sentence, they tend to cluster and both move towards COMP, although this is not obligatory. For a subject clitic as in (24d) or weak subject pronoun (24e), though, such movement is the only option:

24.   a. wil-mi ja sicher d Eltere em Peter/-em vorschteled
      because me PART surely the parents to the Peter/him introduce
      "because the parents will surely introduce me to Peter/him"

     b. wil-mer ja sicher d Eltere de Peter/-en vorschteled
      because to me PART surely the Hans the Peter/en introduce
      "because Hans will surely introduce Peter/him to me"

     c. wil-mer-en ja sicher d Eltere vorschteled
      because to me him PART surely the parents introduce
      "because the parents will surely introduce him to me"

     d. wil-s-mer-en ja sicher vorschteled
      because they to me him PART surely introduce

     e. wil si mer-en ja sicher vorschteled
      because they to me him PART surely introduce

(24d) and (24e) also illustrate the fact that a subject clitic/weak pronoun must precede other clitics. Two object clitics can generally occur in either order, whether they are adjacent or not:

25.   a. dass de Peter-en-mer vorschtellt
      that the Peter him to me introduces
      "that Peter introduces him to me"

b. dass de Peter-mer-en vorschtellt

c. dass-en de Peter-mer vorschtellt
d. dass-mer de Peter-en vorschtellt

It is possible that with certain pronouns there is a preference for the order Acc - Dat, as in (26), but this may be due to phonological constraints:

26.   a. öb-en-em d Maria vorschtellt
       whether him to him the Maria introduces
       "whether Maria introduces him to him"
       b.??öb-em-en d Maria vorschtellt

Note, incidentally, that an absence of order preferences is also found with demonstrative pronouns, as Lenerz (1993:142) points out for German, and this is confirmed by the ZH data:

27.   a. Ich ha dä dem ja vorgschtellt
       I have him to him PART introduced
       "I have introduced him to him"

       b. Ich ha dem dä ja vorgschtellt

1.2.4. Pronouns and clitics in SpecCP

Before turning to the clause-initial ZH pronouns, a short diversion into an often-quoted subject-object asymmetry in German is in order. It appears to be a widely held belief that unstressed German object pronouns cannot appear clause-initially. Travis (1984:121) states that German (28) is ungrammatical if *ihn* is not stressed.

28. Ihn habe ich gesehen   (* according to Travis)
    him have I   seen

It is undisputed that the object pronoun *es*, "it", cannot appear in SpecCP, unlike the subject pronoun *es*, which yields the subject-object contrast in (29):

29.　a. Es hat mich angegriffen (das Monster)
　　　　it has me　attacked　　　the monster
　　　　"It attacked me"

　　　b.*Es habe ich getötet　(das Monster)
　　　　it　have　I　killed
　　　　"I killed it"

However, it is only the Accusative *es* which is barred from SpecCP, and not unstressed object pronouns as such, as Lenerz (1993:120) also emphasises. Some of his examples are given in (30) where stress is marked by upper case letters:

30.　a. Mir gefällt das GAR nicht
　　　　to me pleases this not at all
　　　　"I don't like this at all"

　　　b. Euch haben wir doch GEStern schon gewarnt
　　　　you　have　we　PART yesterday already warned
　　　　"We warned you yesterday already"

　　　c. Dich KENN ich doch!
　　　　you　know　I　PART
　　　　"I know you!"

The use of object pronouns in SpecCP is restricted to pronouns with an animate reference. Corver & Delfitto (1993) express this in terms of a feature [human]. It is at least very odd to use even a stressed personal object pronoun clause-initially to refer to an inanimate entity:

31. ??Ihn habe ich gestern bei Habitat gekauft und sie heute hier in der Nähe
　　　him have I yesterday at Habitat bought and them today near here
　　　"I bought him (e.g. the table) yesterday at Habitat and them (e.g. the chairs) near here"

However, even inside the clause it is odd to stress a pronoun in such a case, as (32) shows:

32. ??Nein, ich habe SIE bei Habitat gekauft und IHN hier.
     no   I have them at Habitat bought and him here
    "No, I bought THEM at Habitat and IT (THAT) here"

Obviously the German personal pronouns are inherently unsuited to an explicity impersonal use. Instead, demonstrative pronouns are generally used for inanimate referents. This seems to be true of English *it/that*, too, as can be seen in (32). Demonstratives are not subject to the same constraints as personal pronouns, as a comparison of (33a) and (29b) reveals. *Das* and *es* occur in near-complementary distribution, with *das* used clause-initially and *es* inside the clause. Note that (33b) is odd and a lot less natural as a reply than (33c):

33.   Was ist jetzt mit dem Monster?
       what is now with the monster

       a. Das habe ich getötet
         that have I   killed
         "I have killed that"

       b. ?Ich habe das getötet
         I have that killed
         "I have killed that"

       c. Ich habe es getötet
         I have it killed
         "I have killed it"

A crucial difference between ZH weak object pronouns and object clitics is that only the former can appear in SpecCP. The ZH examples in (34) and (35) illustrate this. The (a) versions are introduced by a weak pronoun, the (b) versions begin with a clitic. The object clitic *en* in (34b) gives rise to ungrammaticality, whereas the subject clitic *r* in (35b) is fine.

34.   a. In hät de Peter doch geschter scho vorgschtellt
        him has the Peter PART yesterday already introduced
        "Peter introduced him already yesterday"

      b.*En-hät de Peter doch geschter scho vorgschtellt

35.   a. Er hät de Peter doch geschter scho vorgschtellt
          he has the Peter PART yesterday already introduced
          "He introduced Peter already yesterday"

       b. R-hät de Peter doch geschter scho vorgschtellt

There are various ways to account for a subject-object asymmetry in SpecCP. Haegeman (1991), following Rizzi (1991), deals with the fact that West Flemish object pronouns, but not object clitics, can occur in SpecCP by assuming that SpecCP can be either an A- or an A'-position. She proposes that SpecCP must be an A-position if it is occupied by a clitic, as clitics cannot be topics. Moving an object clitic to SpecCP across the subject NP is ungrammatical because the subject, being in an A-position (SpecAgrSP), interferes with the A-chain between the clitic in SpecCP and its object trace. If, on the other hand, a strong pronoun moves to SpecCP, the position qualifies as an A'-position and there will be no interference with respect to A'-binding. As for subjects, Haegeman accounts for the occurrence of West Flemish subject clitics in SpecCP by assuming that they cliticise at PF. In her account, objects cannot cliticise at PF because they cannot even reach this position unless they receive stress and count as topics. Her account seems to imply that a subject pronoun in SpecCP only cliticises at PF if it is unstressed to begin with, and it is left unclear why "topic-hood" should be related to stress. In German and ZH, a pronominal topic, in the sense of discourse topic, can easily be omitted from the SpecCP position - a phenomenon referred to as "topic-drop" (cf. chapter 4) - which indicates that stress is not a defining factor of a topic:

36.   Was ist mit Peter?
       what is with Peter

            __/Ihn habe ich gestern gesehen
            __ /him have I yesterday seen
            "I saw him yesterday"

More importantly though, Haegeman's account for SpecCP does not extend to ZH, because the data call for a distinction between clitics and weak object pronouns - a distinction which can hardly be made in terms of a topic feature.

1.3. Towards an analysis

Beginning with the middle field, we have seen that the distribution of object clitics is the same as that of object pronouns. This suggests that object clitics are phonological clitics only. With respect to distribution, there is no significant difference between object pronouns/clitics and nominal phrases, hence there is no reason to assume two different processes to derive the positions of pronouns/clitics and NPs. This conclusion runs counter to much of what has been proposed in the literature with respect to clitic movement. Jaspers (1989), Haegeman (1991), Cardinaletti (1992), Zwart (1993), and Corver & Delfitto (1993), among others, all insist that Germanic clitic movement must be distinguished from scrambling. The arguments adduced are of the following kind: (i) object clitics are said to have a different distribution in the middle field - in particular, it is shown that object clitics cannot remain in the VP, unlike ZH object clitics; (ii) clitics display a free order, whereas NPs obey a fixed order, a pattern which does not hold of ZH either, as we have seen above (1.2.3.); (iii) clitics, but not NPs, can cross an embedded subject in ECM constructions. Lenerz (1993:142) shows that this is not the case in German, and his example rendered in ZH shows that in this dialect there is no difference either between clitics and NPs in this respect:

37.   wänn du das Buech/s en Chund läse gseesch/laasch...
       when you this book/it a customer read see/let...
       "When you see/let a customer read this book/it..."

Still focusing on object clitics in the middle field, we would expect these to adjoin to and move along with an adjacent phrase if they were syntactic clitics.[4] If topicalisation is relied on as a diagnostic for constituency (but cf. p.42) it can be shown that host and clitic do not form a syntactic constituent:

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[4] Thanks to J. Sabel for pointing this out to me.

38. a. dass mom de Peter-en ois vorschtellt
         that tomorrow the Peter him to us introduces
         "that Peter will introduce him to us tomorrow"

     b.*De Peter-en schtellt mom ois vor
     c. dass mom-en de Peter ois vorschtellt
     d.*Mom-en schtellt de Peter ois vor

Syntactic adjunction to NPs would be an unwelcome analysis, given that adjunction to arguments is not allowed. A further theoretical possibility, viz. adjunction to the head of the NP, can also be ruled out in the face of split topicalisation data such as the following:

39. a. dass d Maria truurigi Briefe-mer schriibt
         that the Maria sad   letters to me writes
         "that Maria writes sad letters to me"

     b. Briefe schriibt d Maria nur truurigi
         letters writes the Maria only sad (ones)

     c.*Briefe-mer schriibt d Maria nur truurigi

Subject clitics, in contrast, do not occur in the same positions as weak subject pronouns and have to move to a C-adjacent position. This implies that subject clitics are real syntactic clitics, which need to move to a functional head to cliticise. The only available functional head to the left is of course COMP, given the clause structure proposed by Haider (1993) and argued for in Chapter 2.

Given that object cliticisation is a phonological phenomenon whereas subject cliticisation appears to be syntactic, an asymmetry is predicted in their behaviour in COMP-adjacent position, and this is borne out by the following coordination data (the discourse topic could be a rabbit):

40. a. wil-en de Vater für d Chind gchauft hät und-en ich jetz mues füetere
        because him father for the kids bought has and him I now must feed
        "because the father bought him for the kids and now I have to feed him"

     b. *wil-en de Vater für d Chind gchauft hät und ich jetz mues füetere

c.*wil-i en für d Chind gchauft ha und-i demit d Muetter verärgeret ha
bec. I him for the kids bought have and I with-it mother annoyed have
"bec. I bought him for the kids and annoyed the mother by doing that"

d. wil-i en für d Chind gchauft ha und demit d Muetter verärgeret ha

If an object clitic were to adjoin syntactically to COMP, we would not expect it to occur in the second conjunct in (40a), contrary to fact. This strongly implies that object pronouns are syntactically adjoined to the main projection, VP in our case, and that their cliticisation to elements in COMP is phonological. In contrast, the subject clitic in (40c/d) forms a syntactic constituent with *wil* in COMP and cannot occur again in the second conjunct.[5]

Clitics in SpecCP present further problems. If subject clitics are taken to be heads it is surprising that they should occur in SpecCP, a position which is reserved for phrasal constituents. Object clitics cannot occur in SpecCP because they have no host on their left to which they could cliticise phonologically. Object cliticisation can be shown to take place to the left only, as can be seen in infinitival complement constructions such as (41):

41.   a. Er hät gar nöd probiert [$_{VP}$ im/-em aazlüüte]
          he had not at all tried   him phone
          "He didn't try to phone him"

        b. [Im aazlüüte] hät er gar nöd probiert

        c.*[Em aazlüüte] hät er gar nöd probiert

I assume that the infinitival complement is extraposed and that the object pronoun can phonologically cliticise to the finite verb across the VP boundary.[6] Phonological cliticisation across a clause boundary, in contrast, is ruled out, as can be seen in (42b):

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[5] Note, though, that in certain Swiss German dialects such as Bernese there is a proclitic *i*-which renders (40c) grammatical. It is unclear to me how this can be accounted for, since the position of this proclitic cannot be SpecCP.

[6] On the notion of "Extraposition" and for a discussion of the categorial status of such complements cf. chapter 5.

42.   a. De Peter meint [cp im hetted mer müese aalüüte]
           the Peter thinks   him had   we   must   phone
           "Peter thinks we should have phoned him"

       b.*De Peter meint [cp -em hetted mer müese aalüüte

I conclude that object clitics in Zurich German are always the result of a phonological process, which explains their wide distribution, and that they can only cliticise to the left, as enclitics, which explains why they cannot occur in SpecCP.[7] Subject clitics on the other hand have a much more restricted distribution, and they can be shown to form syntactic constituents with their host (cf. 40 above). They exhibit both enclitic and proclitic forms. If, however, we regard subject cliticisation in SpecCP, i.e. rightward to COMP, as syntactic we imply that a head can occur in SpecCP and satisfy the V2 constraint, an unwanted consequence. It makes more sense to interpret subject proclisis as phonological, as suggested by Haegeman (1992:97f.), who attributes the same idea for German weak pronouns in SpecCP to Tomaselli. That proclisis and enclisis can indeed be distinguished is indicated by the formal difference between the two observed in the first person singular, illustrated in (43):

43.   a. Ch-gang jetz dänn hei
           I   go   now then home
           "I'm going home soon"

       b. Jetz gang-i dänn hei
          now go   I then home
          "I'm going home soon"

If ZH subject clitics in SpecCP are treated as phonological clitics we have a uniform account for subject and object clitics in this position. There is evidence in favour of a different approach, though, to be discussed in the next section. It will be argued that subject clitics are lexical elements, and as such they are predicted to cliticise in the syntax rather than phonologically.

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[7] This constraint on object clitics applies to personal pronouns only. Demonstrative pronouns may very well occur in proclitic form in SpecCP, as (i) shows; thanks to H.-M. Gärtner for pointing this out.
(i) S-han i nöd gwüsst   (s<das)
    this have I not known

Motivation for such an assumption comes from a study of the acquisition of French personal pronouns, Connors & Nuckle (1986), where it is shown that the clitic pronoun system is a lexical acquisition in native speakers. I therefore propose that ZH subject clitics are separate lexical entries, whereas object clitics are phonologically derived. As regards the issue of head or phrase status of a syntactic or lexical clitic, we can assume, with Haegeman (1991) and Chomsky (1994), that clitics are ambiguous between head and maximal projection.

2. Null referential subjects[8]

It is a common assumption that null subjects are typical of Romance languages such as Italian and Spanish, whereas the Germanic languages do not allow the omission of referential subjects, apart from the phenomenon of null topics. However, closer inspection reveals that Germanic dialects often allow referential subjects to be null, at least for parts of the verbal paradigm. Conversely, Romance dialects often display obligatory subject pronouns; the northern Italian dialects, for instance, employ obligatory subject clitics, but gaps in the clitic paradigm give rise to sentences with null subjects. It will be argued in this section that in ZH, null subjects in the second person singular and, in certain syntactic contexts, also in the first person singular, can be analysed as zero clitics . The data is introduced in 2.1., and section 2.2. presents an informal analysis in terms of inflection, the pronominal system, complementiser agreement and a diachronic view of the issue. It is suggested that we are witnessing grammatical change in progress and that the null elements under discussion can be regarded as lexical. In other words, null referential subjects in ZH are not analysed as *pro*. In Cooper & Engdahl (1989) it was left open whether ZH null subjects could be analysed as *pro*. It was argued that linking the phenomenon to the availability of a proper governor as suggested in accounts of other languages[9] would be insufficient for

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[8] This section represents an overhaul of Cooper & Engdahl (1989). An earlier version of this section is published as Cooper (1994b).

[9] Chomsky (1981), Rizzi (1982, 1986), Bayer (1984), Bennis & Haegeman (1984), Platzack (1987), Koster (1986), Haider (1988a), among others.

ZH null subjects because (i) they occur both in positions governed by an inflected element in COMP (or SpecCP) and in ungoverned positions (but cf. 2.2.3. below on complementiser agreement), and (ii) they are sensitive to the local context of the deletion (cf. 2.1.2. and 2.1.3.).

2.1. The data

ZH allows omission of the second singular subject pronoun in almost all contexts, and of the first singular subject pronoun in certain contexts.[10] I will first consider second singular null subjects.

2.1.1. Second singular null subjects

In the following three examples it is perfectly acceptable to omit the subject pronoun second singular, *du*, (the subject position is marked by *e*, for *empty element*):

44. *e* Häsch ggune
    have won
    "You have won"

45. Günsch *e* gäge de Peter?
    win against the Peter
    "Do you win against Peter"

46. Ich glaub nöd dass *e* gäge de Peter chasch güne
    I believe not that against the Peter can win
    "I don't think that you can win against Peter"

Now consider the German equivalents of these three constructions:

47. *e* Hast gewonnen

---

[10] Lötscher (1983:94) mentions that in Swiss German dialects generally, the first and second singular pronouns *ich* and *du* can be omitted in non-emphatic position after the verb, and that *ich* is omitted in front of many pronouns. He furthermore notes that *du* tends to be dropped after subordinating conjunctions.

48. *Gewinnst e gegen Peter?

49. *Ich glaube nicht dass e gegen Peter gewinnen kannst

In (44)/(47) the subject pronoun is missing from the sentence-initial position, SpecCP. This type of null subject, usually referred to as "pronoun zap" or "topic drop", is not confined to subjects (of all persons/numbers) and is only possible from this sentence-initial "topic" position, as the null object example in (50) shows.[11]

50. Was isch mit de Anna?
    what is with the Anna
    "What's up with Anna?"

- (a) e Han-i geschter gsee
       have I yesterday seen
       "I saw her yesterday"

- (b) *Ich ha e geschter gsee

- (c) *Geschter han-i e gsee

In (45)/(48) the subject pronoun is absent from the position immediately following the verb. This is perfectly grammatical in ZH but not in Standard German, although German dialects and a number of other Germanic languages allow the omission of a second singular subject pronoun after the inflected verb, be it in verb-second contexts or in verb-initial interrogatives:

51. Kummst e noch Minga, dann muasst e mi b'suacha   Bavarian
    come   to Munich then must me visit   (Bayer 1984)
    "If you come to Munich you must visit me"

52. Wos willsch e haint tian?   Meran dialect, South Tyrolian
    what want   today do   (Alber 1989)
    "What do you want to do today?"

---

[11] Topic drop is common to almost all Germanic verb-second languages. Cf. chapter 4 for further discussion.

53. Komst *e* jun?   Frisian (Hoekstra & Maracz 1989)
    come tonight
    "Are you coming tonight?

In Bavarian the omission of the second plural subject is equally possible. The same applies to the dialect of Meran, whereas the neighbouring dialect of Vöran only admits null second singular subjects, probably due to a non-distinct second plural verb form (Alber 1989).

In (46)/(49) the inflected verb occurs sentence-finally and the subject pronoun is omitted from a position immediately following the complementiser *dass*. This construction type is the most interesting, as the occurrence of a null subject is cross-linguistically more constrained here. Of the languages mentioned so far, only ZH and the South Tyrolian dialects allow null second singular subjects in these contexts; in Bavarian and Frisian the complementiser or WH-element introducing the clause bears 2sg-inflection, thus licensing an absent subject pronoun. Without this inflection null subjects would be ungrammatical.

54. ..dass-st/ob-st/wenn-st *e* noch Minga kummst   Bavarian
    that2s/whether2s/when2s to Munich come   Bayer (1984)
    "that/whether/when you come to Munich"

55. ..weil *e* eppes vergessen hosch   Meran (Alber 1989)
    because something forgotten have
    "because you have forgotten something"

56. ..datst *e* jun komst   Frisian (Hoekstra & Maracz 1989)
    that2s   tonight come
    "that you are coming tonight"

So far, the ZH data show that the second singular pronouns can be missing in all contexts. In the next section we will consider those cases where this is not possible.

2.1.2. Constraints on null second singular subjects

ZH allows so-called "doubly-filled COMPs", i.e. a WH-constituent may co-occur with an overt complementiser. The data in (57) illustrate the interaction between complementiser and *du*-drop:

57.   a. Ich wott wüsse wo (dass) *e* vorhäsch zübernachte
        I want know where (that) intend to-overnight
        "I want to know where you intend to stay overnight"

        b. Ich wott wüsse wo dass *e* übernachtisch
        I want know where that   overnight
        "I want to know where you are staying overnight"

        c. *Ich wott wüsse wo *e* übernachtisch
        as (17b)

        d. Ich wott wüsse wo-t übernachtisch
                where-you

        e. Ich wott wüsse wo *e* übernachte wottsch
        I want know where overnight want
        "I want to know where you want to stay overnight"

(57b) and (57c) would suggest that the complementiser is obligatory, but (57a) and (57e) show that this cannot be right: the complementiser is optional and it is the absence of the subject pronoun which makes (57c) ungrammatical (cf. 57d). (57e) shows that a missing subject between two vowels is possible, hence an explanation in terms of phonological assimilation is ruled out (cf. fn.13 below on phonological explanation). What then explains the contrast between (57c) and (57e)? The embedded clause in (57c) cannot be unambiguously identified as such, due to the lack of lexical material between *wo* and the finite verb. In other words, the clause looks like verb-second, with the subject omitted from behind the verb. Verb-second is not compatible with an embedded WH-complement, but only with a paratactic construction like (58).

58. Ich wott wüsse: wo übernachtisch *e* ?
    I want know where overnight
    "I want to know: where are you staying overnight?"

This ambiguity of structure is responsible for the inacceptability of (57c); this is further supported (i) by the fact that *dass*-introduced clauses always allow missing *du* (59), *dass* being the clearest indicator of subordination, and (ii) by constructions involving separable prefix verbs, where the position of the prefix clearly signals subordination, as the contrast between (60a) and (60b) shows:

59. Ich finds guet dass *e* singsch
    I find-it good that sing
    "I find it good that you sing"

60. Ich wott wüsse wänn *e* abfahrsch
    I want know when leave
    "I want to know when you're leaving"

    Ich wott wüsse: wänn fahrsch *e* ab?
    I want know when leave
    "I want to know: when are you leaving?"

2.1.3. Null first singular subjects

The omission of the first person singular subject pronoun is confined to cases where the subject occurs before clitics, as in (61). Before full (not necessarily stressed) pronouns and lexical noun phrases no such null subjects are possible, as (62) illustrates:

61.   a. Ha *e* der das nöd scho verzellt?
         Have to-you this not already told
         "Haven't I told you this already?"

      b. ..öb *e* ere das nöd scho verzellt ha
         whether to her this not already told have
         "..whether I haven't told her this already"

    c. ..wil *e* mer in Finger gschnitte ha
      because to-me in finger cut have
      "because I have cut my finger"

62.   a.*Ha *e* dir das verzellt?
      have to-you this told
      "Have I told you this?"

      b. *..öb *e* de Chind das nöd scho verzellt ha
      whether the children this not already told have
      "whether I haven't told the children this already"

      c. *..wil *e* MIR in Finger gschnitte ha, nöd DIR
      because to-me in finger cut have Is not to-you
      "because I cut MY finger, not YOURS"

›There is a phonologically conditioned exception to this pattern: Noun phrases preceded by the dative masculine determiner *em*, which has the same form as the dative clitic third singular masculine, also allow a null subject before them:

63.   a. ..wil *e* em ali Artikel kopiere
      because him all articles copy
      "because I copy all articles for him"

      b. ..wil *e* em Profässer ali Artikel kopiere
      because the prof all articles copy
      "because I copy all articles for the professor"

It is obvious that the assumption of a lexically or syntactically triggered phenomenon of null first singular subjects in the context of certain phonologically conditioned elements - remember that it was concluded above that object clitics are phonologically reduced elements - is a problem for a theory which orders phonological processes after lexical and syntactic ones.

2.2. An analysis

In order to understand why ZH permits null subjects for parts of its verbal paradigm, it is necessary to look at both verb inflection and the system of pronominal forms.

2.2.1. The role of inflection

Intuitively speaking, null referential subjects would seem to be possible where the verb inflection is sufficiently "rich" to identify the subject. The second person singular inflection always unambiguously identifies the subject, as table (64) shows; the first person singular also has a distinct ending for most verbs, but the modal verbs collapse the first and third person singular. For some verbs ending in *-te* or *-de* the third singular person displays the same form as the plural.

64.	güne "win"	müese "must"	riite "ride"
sg 1	gün(e)	mues	riite
2	günsch	muesch	riitisch
3	günt	mues	riited
pl 1	güned	müend	riited
2	güned	müend	riited
3	güned	müend	riited
sg !2	günn!	-	riit!
pl !2	güned!	-	riited!

"Richness" of inflection cannot be a sufficient condition for null subjects, otherwise we would expect null second singular subjects to occur in German, which also has a distinct second singular verb ending (*-st*). Contrary to fact, we would also expect null subjects to be possible in Icelandic, where five out of six verb forms are distinct (but it may be significant that the 2sg and 3sg share one form). It is well known that some languages without any verbal inflection allow null subjects throughout, such as Chinese and Japanese. As far

as inflecting languages are concerned, there is clearly a correlation between null subjects and inflection. This can be seen in Italian where the occurrence of null subjects is not as unconstrained as the literature on the subject may lead one to think; in the present and imperfect subjunctive the second singular pronoun is obligatory (cf. Renzi & Vanelli 1982, fn.17). Whereas the indicative verb forms are all distinct, the present subjunctive displays the same form for all three persons of the singular, and in the imperfect subjunctive the first and second singular have the same form. The missing subject in example (65a) can either be interpreted as first or third singular and in (66a) as first singular only. The relevant the verb forms are listed in (67).

65.   a. E' necesario che parta subito
          is necessary that leave immediately
          "It is necessary that I/he/she leave immediately"

       b. E' necessario che *(tu) parta subito
          "It is necessary that you leave immediately"

66.   a. Era necessario che partissi subito
          was necessary that left   immediately
          "It was necessary that I left immediately"

       b. Era necessario che *(tu) partissi subito
          "It was necessary that you left immediately"

67. Present subjunctive   Imperfect subjunctive

sg 1	parta	partissi
2	parta	partissi
3	parta	partisse

If a second singular reflexive is employed the subject pronoun becomes redundant, supporting the assumption that ambiguity resolution is at issue (68). It is interesting to note that a first/third person ambiguity is tolerated (65a), while for the second singular person no ambiguity is permitted.

68. E' necessario che partate subito
    "It is necessary that you leave immediately"

2.2.2. Subject pronouns

Table (69) contains the subject forms of the ZH personal pronouns. On the basis of the discussion in the first section I assume a distinction can be made between full pronouns (stressed or unstressed/weak) and clitics, and I further distinguish between proclitics and enclitics.

69. ZH personal pronouns: subjects

		full form	proclitic	enclitic	
sg	1	ich	ch-	-i	0 = zero
	2	du	0-	-0	
	3m	er	r-	-r	
	f	si	si-	-si	
	n	es	s-	-s	
pl	1	mir	me(r)-	-mer	
	2	ihr	er-	-er	
	3	si	s-	-s	

Let us now return to the three initial examples of missing second singular subjects, (44) - (46), repeated here for convenience, and consider what type of pronoun has been omitted (given in brackets; but cf. below on -t):

70.   a. (Du) Häsch ggune
          (you)have won
          "You have won"

       b. Günsch (du) gäge de Peter?
          win (you)against the Peter
          "Do you win against Peter?"

       c. Ich glaub nöd dass(-t/du) gäge de Peter chasch güne
          I believe not that (you) against the Peter can win
          "I don't think that you can win against Peter"

It is clear that it is not a stressed subject pronoun that is omitted but an unstressed one. I propose that atonic *du* alternates freely with a zero clitic in these contexts. In other words, where most verb forms occur with a subject

clitic, the second singular pronoun is zero, as there is no overt clitic available. This is illustrated in (71) for both pre- and postverbal subject positions.

71.   a. (i) Ch-güne das Schpiil no   (ii) Das Schpiil gün-i no
              I win this game yet   this game   win-I yet

       b. (i) e günsch das no   (ii) Das günsch e no
                win this yet   this win   yet

       c. (i) R-günt das no   (ii) Das günt-r no
                he wins this yet   this wins he yet

       d. (i) Si-günt das no   (ii) Das günt-si no
                she wins this yet   this wins she yet

       e. (i) S-günt das no   (ii) Das günt-s no
                it wins this yet   this wins it yet

       f. (i) Mer-güned das no   (ii) Das günemer no
                we   wins   this yet   this win we yet

       g. (i) Er-güned das no   (ii) Das güned-er no
                you(pl) win this yet   this win you yet

       h. (i) S-güned das no   (ii) Das güned-s no
                they win this yet   this win they yet

The idea of assuming a zero or silent clitic is inspired by data from the northern Italian dialects. In contrast to Italian, these dialects possess subject clitics which are used in conjunction with pronominal and non-pronominal subjects. However, most dialects have gaps in the paradigm of subject clitics. A typical example is the Trentino paradigm given in (72) (cf. Brandi & Cordin 1989: 113):

72. sg 1   parlo   Trentino
        2   te parli
        3   el/la parla
    pl 1   parlem
        2   parle
        3   i/le parla

Whereas Italian allows utterances without any overt subjects whatsoever, such as (73a/b), Trentino only tolerates this possibility if no subject clitic is available (74a):

73. a. Parlo   Italian
     "I speak"

     b. Parli
     "You speak"

74. a. Parlo   Trentino
     "I speak"

     b. Te parli
     "You speak"

An approach which takes the dialects as a starting point rather than the standard language might plausibly suggest that (Standard) Italian has zero subject clitics throughout, although it is not clear how the existence of an entire paradigm of zero elements can be proved. Sprouse & Vance (1993) argue that the missing subject in Italian is a null atonic pronoun, as it does not have the same referential properties as the overt tonic pronoun. An expected and obvious referent can be expressed by a null subject whereas a pronoun must be employed to refer to an unexpected referent. Consider (75), where the embedded null pronoun corefers with the subject of the matrix clause (Renzi 1991:358):

75. Quando Carlo$_i$ ha visto Marioj, 0$_i$ / lui$_j$ è scappato
    when   Carlo has seen Mario   0   he is fled
    "When Carlo saw Mario, he$_i$ (the former) / he$_j$ (the latter) fled"

The pattern for ZH second singular is different inasmuch as unstressed *du* alternates with the zero form, at least at the present stage of the dialect. What is remarkable is that the availability of null subjects usually goes hand in hand with the absence of subject clitics, as in Italian and Spanish.[12]

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[12] Although in the Romance languages this absence of clitics has been related to the availability of *pro*, I am not claiming that ZH is a pro-drop language.

2.2.3. The status of -t

ZH subject enclitics can cliticise to complementisers or wh-expressions introducing a subordinate clause. The enclitics are the same as the ones given in (71ii), with the exception of the second singular subject where the zero form alternates with an overt -t:

76. Ich ha nöd gwüsst dass(-t) in Züri wohnsch
    I have not known that   in Zurich live2s
    "I didn't know that you live in Zurich"

77. Es chunnt druf aa wo(-t) uusschtiigsch
    it depends on   where   out-get2s
    "It depends on where you get out/off"

78. Es chunnt druf aa wänn(-t) aachunnsch
    it depends on   when   arrive2s
    "It depends when you arrive"

It might be argued that -t in these examples is an enclitic form of du. However, (79) shows that this cannot be correct, because we would then have to assume (optional) du-doubling (restricted to constructions in which -t and du are not adjacent), although such doubling is absolutely excluded with other subject clitics (80):

79. a. Ich ha nöd gwüsst dass-t au du in Züri wohnsch
       I have not known that you also you in Zurich live
       "I didn't know that you also live in Zurich"

    b. Es chunnt druf aa öb-t em Peter du das wottsch erkläre
       it depends whether you to Peter you this want explain
       "It depends whether you want to explain this to Peter"

80. a.*Es isch ja klar dass-i au ich in Züri wohne
       it is   clear that-I also I in Zurich live
       "It is clear that I also live in Zurich"

    b.*Es chunnt druf aa öb-mer em mir das wänd erkläre
       it depends   whether-we him we this want explain
       "It depends whether we want to explain this to him"

If -*t* in these examples is not a reduced subject pronoun but a verbal flexive, ZH can be counted among the languages with inflecting complementiser, such as Bavarian, Frisian, West Flemish and certain dialects of Dutch. Hoekstra & Maracz (1989) take complementiser agreement to be a reflex of INFL-to-COMP movement, which they believe to apply only in languages with overt complementiser agreement. Zwart (1992) also takes it to be a reflex of INFL-to-COMP movement (for him, AgrS-to-COMP), but he assumes that this movement takes place in all varieties of Dutch and German. INFL in COMP can then properly govern the subject position and thus license (and identify) an empty subject (*pro*). The difficulty with such an account for ZH is that complementiser agreement is optional. If we assume that inflection features are always present in COMP because COMP and INFL are one and the same position, then the licensing conditions for a null subject in SpecIP are trivially fulfilled. It remains open how a null subject is identified if agreement in C is not overt.

2.2.4. A diachronic perspective

The ZH data discussed so far become clearer when seen in a diachronic perspective. Weber (1964:174) mentions the loss of -*t* from the original second singular flexive -*scht* and notes that in slow and emphatic speech -*scht* may still occur, as in (81):

81. Häscht *e* e gsee?   older ZH
     have   him seen
     "Have you seen him?"

Younger speakers of ZH invariably reject examples like (81) as alien to their dialect and associate verb forms ending in -*scht* with other Swiss dialects. Interestingly, Weber has reduced forms for *du*, viz. *de* and *d*, in addition to zero. For *de* he gives examples like (82):

82. De wiirsch dänn gsee!   older ZH
    you will then see
    "You shall see!"

It is interesting that younger speakers, myself included, cannot interpret *de* in (82) as a pronoun anymore, but at most as a reduced form of *dann*, "then" - even though this results in a double occurrence of "then" in (82). With respect to *d*, Weber writes that it occurs in medial positions only, *merkwurdigerweise zu t verstarkt* ("strengthened to *t*, oddly", p.156), i.e. in contexts like (76) - (79) above. We can assume that the proclitic form of *du* has become reduced to zero, and that medial -*t*, often wrongly regarded as a pronominal enclitic, is really part of the older flexive -*scht*; -*t* has dissociated itself from the verb and can now only occur suffixed to complementisers and WH-elements introducing embedded clauses. A phonological analysis which explains missing *du* by postulating assimilation of a reduced pronoun to its environment is on the wrong track, because there is no reduced pronoun available which could assimilate. This is not to say that phonology plays no part. It is possible that in an earlier stage of the dialect the zero pronoun was the result of assimilation of a reduced pronoun *d*, which does not exist today. It is well known that yesterday's phonology is today's syntax.[13] What is crucial for present concerns is that there is no overt clitic for the second person singular

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[13] In a reaction to Cooper & Engdahl (1989) it was suggested by Z Penner and T Bader (p c) that null *du* subjects are possible after obstruents This would account for null *du* after *ob* "whether", and *dass* "that", but would predict that it is impossible after *wann* "when" However, even in the Bernese dialects do we come across examples like (i), taken from a paper not concerned with null subjects but with switching from the dialect to German (Werlen 1988 109)

(i) wen *e* uf Politik luegsch und mit der Geschichte ferglichsch
  when _ on politics loos2s and with the history compare2s
  " if you look at politics and compare [it] with history"

Another non-syntactic explanation is provided by Nubling (1992 269ff), noting that an enclitic following a monosyllabic element is in a position which receives no stress or tone whatsoever and can therefore be easily deleted She refers to Bernese examples such as (ii) and (iii), in which the first singular subject pronoun is 0 (zero), and points out that the clitic-host is always either a monosyllabic auxiliary or modal verb, or a monosyllabic subordinating conjunctions

(ii) Chan-0-im oppis halfe? (iii) wo-0-di gseh ha
  can him something help   where you seen have1s
  "Can I help him with anything?" "where I have seen you"

It is easy to find counterexamples to Nubling's claim that pronoun deletion is solely dependent on the prosodic structure of the first one or two syllables of the clause polysyllabic words behave the same, as (iv) illustrates

(iv) Und dann diktier-0-em grad au no di andere Briefe
  and then dictate- him just also yet the other letters
  "And then I dictate him the other letters, too "

and that the -*t* which can occur in medial position is not a pronoun but a flexive.

As for first person singular null subjects I propose that the development is comparable to that of the second person, but is less advanced. Weber (1964:154) still lists a proclitic form of *ich*, viz. *i*-, as in (83), which has since disappeared in ZH, but is familiar from other dialects.

83. I-bi daa   older ZH
     "I am here"

The loss of -*i* in front of other clitic pronouns is acknowledged by Weber but not explained. It is plausible that a clitic cluster is just the right kind of unstressed environment where an enclitic would begin to disappear. Two ·predictions ·can be made: (i) The gradual loss of the first person clitic continues, perhaps even with accompanying reanalysis of the enclitic -*i* (cf. (84a)) as a flexive, in which case "doubling"-constructions like (84b) can be predicted:

84.   a. Geschter han-i der das wele gää
          yesterday have-I you this wanted give
          "I wanted to give this to you yesterday"

       b. ..dass-i der ich das ha wele gää   *predicted*
          that-1sg you I this have wanted give
          "that I wanted to give you this"

(ii) Alternatively, and more likely, the clitic first person singular will remain overt in most contexts, as the verb inflection is not distinct enough to make the pronoun completely redundant. It seems to be required particularly in sentence-initial position, which is expressed by the fact that the older proclitic *i*- has been supplanted by a more recent form *ch*-:

85. Ch-bi daa
     "I am here"

2.3. ZH null subjects as silent clitics - further discussion

In section 1 of this chapter I proposed to take ZH subject clitics to be independent lexical items, whereas object clitics are simply phonologically reduced counterparts of unstressed object pronouns and can be regarded as phonological clitics. In section 2, I have accounted for the availability of apparent null subjects in ZH in terms of the explicitness or richness of inflection and the gradual loss of a clitic pronoun for the second person singular. I propose that these apparent null subjects are silent clitics, i.e. clitics with syntactic and semantic features but without a phonetic form. This implies that ZH null subjects occur in place of clitics rather than in place of full pronouns, i.e. they alternate with clitics if clitics are available. This is confirmed by the northern Italian dialects, where the majority of the 27 dialects analysed by Renzi & Vanelli (1982) have subject clitics which are not strictly obligatory. In fact, only 6 dialects appear to have obligatory subject clitics for the entire verb paradigm. It is also striking that Standard Italian has no subject clitics even though it has object clitics. The assumption of silent clitics also suggests that, at least in Zurich German, we are dealing with a lexical idiosyncrasy rather than a syntactic property. It must be stressed that although the difference may be subtle, a silent clitic is not the same as *pro*. The latter is an empty category which can occur in place of any overt pronoun and it receives its interpretation via inflection or the context. The silent clitic, in contrast, is a fully specified pronominal element which just happens to have no phonetic realisation. Note that my use of the term "silent clitic" comes close to that of Safir (1986), but unlike Safir I do not intend it to replace *pro*. Silent clitics are predicted to be part of a paradigm of overt clitics. If a language has no subject clitics at all, like Standard Italian, it is not expected to have silent clitics either, unless of course the entire paradigm is assumed to be silent, which is absurd. Further motivation for silent clitics comes from the phenomenon of unexpressed indeterminative pronouns in ZH which I will briefly discuss here.[14]

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[14] Thanks to J. Bayer for bringing this phenomenon to my attention by referring me to Glaser (1993).

German makes use of an indefinite pronoun *welch-* "some", in contexts such as the following:

86. a. Gibt es noch Wein? - Im Kühlschrank steht noch welcher.
         is there still wine   in the fridge   stands still some

     b. Sind die Brötchen alle? - Dort liegen noch welche.
        are the rolls finished   there lie   still some

     c. Die Tennisplätze sind zu. - Aber ganz hinten spielen doch welche.
        the tennis courts are closed but at the very back play though some

The pronoun at issue is homonymous with the interrogative pronoun *welch-*, "which", and shows inflection for number, person and case. Unlike English *some* it cannot be used clause-initially except as an interrogative[15]:

87. a. Welcher steht im Kühlschrank? a.' *Welcher steht im Kühlschrank.
        which stands in the fridge?   some   stands in the fridge

     b. Welche liegen dort?   b.' *Welche liegen dort.
        which lie   there?   some lie   there

     c. Welche spielen ganz hinten? c.' *Welche spielen ganz hinten.
        which play at the very back?   some play at the very back

ZH has the interrogative pronoun *weli*, corresponding to German *welche*, but it apparently does not have its indeterminative counterpart. The relevant contents of (86a-c) can be expressed as follows, assuming the same questions as in (86):

88. a. Im Chüelschrank schtaat no _ . (Wii)
        in the fridge   stands still _ (wine)

     b. Det liged no _ . (Brötli)
        there lie still _   (rolls)

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[15] The ungrammatical versions in (87) become grammatical if *irgend-* "any", is affixed, as in (i):
(i) Irgendwelcher steht im Kühlschrank.

    c. Aber ganz hine schpiled doch _ . (Lüüt)
       but at the very back play though _ (people)

A silent element is used in place of the German indefinite pronoun. There can be no question of deletion as there is no lexical element available which could have been deleted. It is also clear that there must be a non-overt element in subject position with which the verb form agrees. Its reference is recoverable from the wider context.

So far we have considered silent indefinite subject pronouns only. Silent object pronouns of this kind are exemplified in the following[16]:

89.   a. Mer händ kei Brot. - Du chasch ja go _ chauffe.
       we have no bread   you can PART go _ buy

    b. Gits noime Couverts? - Ich ha _ i mim Schriibtisch.
      · are there anywhere envelopes? - I have _ in my desk

    c. Erdbeeri hämmer no kei. - Aber ich gsee ja _ vo mim Zimmer uus!
       strawberries have we not yet - But I see PART _ from my room

My claim is that in all the examples above the relevant arguments remain unexpressed because there is no appropriate lexical item available. I take these data to support the view that there can be lexical items with zero phonetic form in one language where another language has overt lexical elements. That these silent items are lexical is shown by the fact that the verb displays agreement with the unexpressed subject in (88). Furthermore, as Glaser (1993:103) points out with respect to the same phenomenon in Southern German dialects, the resulting gap in subject position cannot be compared to the gap filled by a definite, referential *pro* in null-subject languages like Italian. The unexpressed elements have an indefinite reference, as opposed to personal pronouns, and the gap is not in the same position as a pronoun would be, as the following contrasts show:[17]

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[16] Note that in (89) it is not clear where the zero object pronoun should be located. It could equally well be at the end of the clause.

[17] These contrasts are not without problems, though, as they are based on intuitive judgements of where the empty element is located in the sentence, and (b) is not ungrammatical as a string, but rather as a structure, hence the asterisk in brackets.

90.   a. Aber ganz hine schpiled-s doch
      but at the back play-they though

      b. (*)Aber ganz hine schpiled _ doch

      c. Aber ganz hine schpiled doch Lüüt
         but at the back play though people

      d. Aber ganz hine schpiled doch _

To recapitulate, I propose that there are silent lexical items in ZH which are fully specified but lack a phonetic form, viz. the clitic pronoun for second singular, and possibly the clitic pronoun for first singular, as well as parts of the paradigm of indefinite pronouns. If this kind of approach is correct, we expect to find further silent lexical elements in ZH and other languages.[18]

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[18] Cf. Bayer (1994:29ff) who employs my idea of a silent (or zero) clitic to account for the contrast between Northern and Southern German dialects with respect to preposition stranding. He suggests that Northern dialects have a silent clitic *da* (i) where Southern dialects make use of an overt copy of a moved preposition (ii):
(i) weil ich da nichts 0+gegen unternommen habe
   because I there nothing 0+against undertaken have
   "because I haven't taken any steps against that"
(ii) weil ich da nichts da-gegen unternommen habe

Chapter 4: COMP and prefield

1. Introduction

Zurich German displays the verb-second (V2) phenomenon in main clauses and certain complement clauses, i.e. no more than one constituent can precede the finite verb. Following Koster (1975) and Thiersch (1978) it has become standard practice to derive verb-second order from an underlying subordinate clause order, which in German and Dutch and their dialects is generally taken to be verb-final (1a). The finite verb is moved to the beginning of the clause, yielding verb-first order for questions and conditionals. Subsequent fronting of any other constituent to the position preceding the verb produces verb-second order (1b).[1] Den Besten (1977, 1983) identified the landing site of verb movement with the position of the complementiser, observing that the distribution of finite verb and complementiser is complementary,[2] at least in German and Dutch. This distribution is also found in ZH, as the following pairs illustrate:

1.   a. Ich glaub, [$_{CP}$ dass [er z schpaat choo wird]]
       I believe that he too late   come will
       "I believe that he will come too late"

    b. Ich glaub, [$_{CP}$ er$_i$ wird$_k$ [t$_i$ z schpaat choo t$_k$]]
       I believe he will too late   come
       "I believe he will come too late"

2.   a. Es gseet uus, als öb er z schpaat chämt
       it looks   as if   he too late would come
    "It looks as if he came too late"

    b. Es gseet uus, als chämt er z schpaat
       it looks   as would come he too late
       as (a)

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[1] More recently, it has been proposed that verb movement follows rather than precedes movement to the clause-initial position, cf. Rizzi (1991) among others.

[2] Strictly speaking, den Besten did not use the term "complementary distribution", and Stechow & Sternefeld (1988:402ff) advise against its use, pointing out that identifying complementiser and V2 on the basis of distribution is structuralist and not compelling.

3.   a. Wänn er bloss rächziitig chämt!
         if   he only   in time would come
         "If only he came in time!"

      b. Chämt er bloss rächziitig!
         would come he only in time
         as (a)

In the (a) examples, *dass*, *öb* and *wänn* function as complementisers and when they are present the finite verb appears clause-finally. In the (b) examples the complementiser is absent and the finite verb takes its place. Like the finite verb, the complementisers in (1)-(3) can be assumed to have a feature [+finite], as they cannot introduce non-finite clauses. It is standard practice in GB to adopt a uniform structure for both main and subordinate clauses in German, reflecting the complementarity of complementiser and finite verb. All clauses are equipped with a C-projection. Either the complementiser or the finite verb occupies C. As (1a) shows, SpecCP can be empty, in fact, it must not be occupied by an NP or any other constituent, as is illustrated in (4):

4.   a. *Ich glaub, er dass z schpaat choo wird
          I believe, he that too late come will

      b. *Ich glaub, hüt dass er z schpaat choo wird
          I believe, today that he too late come will

      c. *Ich glaub, z schpaat dass er choo wird
          I believe, too late that he come will

It is therefore not obvious that a full C-projection is justified in the case of a *dass*-complement. However, in common with other German dialects, ZH allows wh-elements to precede *dass*, ("doubly-filled COMP"); in these cases the complementiser is optional:

5.   a. Ich weiss nöd, wer (dass) jetz chunnt
         I   know not who that   now comes

      b. Ich weiss nöd, warum (dass) si chömed
         I   know not why   that they come

c. Ich weiss nöd, wänn (dass) ich chume
1   know not when that   I   come

The data in (5) can be regarded as evidence for a SpecCP position in verb-final clauses. Alternatively, it could be argued that the wh-element forms part of the complementiser and can function as such, hence the possibility of omitting *dass*.[3] Further support for the presence of a SpecCP position comes from extraction data. It is assumed that long movement in German proceeds via SpecCP, as in (6). If SpecCP is not available for a trace the sentence is ungrammatical (6c), hence it is argued that an empty specifier position is required for movement to be grammatical. Consider these German examples:

6.   a. Diesen Film$_i$ dachte ich, t$_i$ dass die Kinder t$_i$ sehen möchten
          this film thought I   that the children   see would like

       b. Diesen Film$_i$ dachte ich, t$_i$ möchten die Kinder t$_i$ sehen
          this film   thought I   would like the children see

       c.*Diesen Film$_i$ dachte ich, die Kinder möchten t$_i$ sehen
          this   film thought I   the children would like see

However, the ZH equivalent of (6c) is perfectly grammatical, which suggests that long movement does not necessarily proceed through SpecCP. Data like (7) provide further support for an alternative approach.

7.   Dää Film$_i$ weiss-i nöd, wo dass d Chind t$_i$ luege wänd
       this film   know I   not where that the children see want

This chapter will concentrate on a characterisation of the clause-initial position(s) and on an explanation of certain unexpected long movement constructions. It will be assumed without further discussion that V2 is derived by movement to C.[4] Nothing hinges on a movement as opposed to a base-

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[3] Note that complementiser deletion is not possible:
(i) Ich glaub *(dass) er hüt nöd rächziitig chunnt
    I think   that he today not in time comes
[4] Evidence in favour of a derivational analysis is provided by Höhle (1991) and comes from German coordination data and separable prefix verbs: In (i) verb movement to C can be regarded as Across-the-board extraction:
(i) Trotzdem füttert$_i$ sowohl [Heinz die Katze _$_i$] als auch [Karl den Hund _$_i$]

generation account, as far as I can tell. Whether the verb always occupies C in V2 structures, though, is not entirely uncontroversial. Travis (1984) suggests that subject-initial V2 clauses should be analysed as IPs, and Zwart (1993) adopts her proposal. But Vikner & Schwartz (1991) convincingly argue that the finite verb is always outside IP in V2 clauses, and Gärtner & Steinbach (1994) carefully examine and dismiss Zwart's arguments for an "asymmetry"-analysis. It was argued in Chapter 2 that there is no evidence for a functional position apart from C. The question of an alternative landing-site for the finite verb is therefore vacuous.

2. The clause-initial position(s)

Movement to SpecCP is usually referred to as topicalisation. This notion is examined in 2.1. and it is shown that the initial constituent is not necessarily a topic, irrespective of its grammatical function. This is important because it is often believ⁻ᵈ ·with respect to German that clause-initial objects are necessarily topics. Curiously, what is meant is that these objects are focused. It is argued that focus and topic are incompatible notions, and that the clause-initial constituent is either a topic or a focus, but never both at the same time. Left-dislocation structures, in contrast, begin with a topic and never a focus. In 2.2. various analyses of topicalisation and left-dislocation are discussed. These all have in common that of the two left-peripheral positions the first one is a topic position while the second one is reserved for wh-elements and operators in general. In 2.3 V2 violations in Yiddish are considered, where two constituents - a wh-phrase followed by a subject - can occur on the left of the (embedded) verb. 2.4. and 2.5. contain discussions of work by Müller & Sternefeld (1990, 1993), in which they argue for a clause structure with a topic projection between CP and IP. On their account, wh-movement is to a more

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despite it feeds as well H. the cat as also K. the dog
"Despite this, Heinz feeds the cat and Karl the dog"
The fact that a separable verb prefix remains in clause-final position strongly suggests that this is the base-position of the verb, cf. (ii) and (iii). As Höhle himself points out, it is not clear though how the prefix can remain in the V position if a verb trace is assumed there.
(ii) Peter löscht das Licht um Mitternacht aus
    P. switches the light at midnight off
(iii) weil Peter das Licht um Mitternacht auslöscht
    because P. the light at midnight offswitches

peripheral position than topicalisation. The ZH extraction data presented in 2.6. is at odds with some of the observations Müller & Sternefeld make for German. In 2.7. I propose that there are two left-peripheral positions which should be characterised in terms of the discourse notion "topic", viz. +topic and -topic, and cutting across the +/-wh distinction. Whether a SpecCP position is +topic or -topic depends on the structure of the clause, and on whether long movement has taken place. There is a certain amount of flexibility in this approach, which intends to reflect effects of discourse context on the syntax. The phenomenon of null topics is dealt with in 2.8.. Finally, 2.9. suggests a superficial subject-verb inversion process in V1 and V2.

2.1. On topicalisation - topic and focus

Given the V2 account outlined above, main clauses are derived by moving the verb to COMP, accompanied by fronting of any other constituent to the position to the left of the verb, SpecCP. The latter movement is often referred to as "topicalisation", suggesting that it is comparable to topicalisation in English. However, the ZH construction (8) is not equivalent to English (9):

8. Pommfrit händ ali Chind gern
   chips   have all kids fond

9. Chips all kids adore

The fronted constituent in (9) is necessarily focused, whereas this is not the case in (8). The following data show that the fronted constituent in ZH can be stressed - just as virtually any constituent in any position in ZH can be stressed - but it does not need to be. In English, however, the fronted constituent must be stressed, as (12a/13b) show (upper case letters indicate stress/focus):

10. Was händ ali Chind gern?
    what have all kids fond
    "What do all kids like?

    a. POMMFRIT händ ali Chind gern

      b. Ali Chind händ POMMFRIT gern

11.   Wer hät Pommfrit gern?
      who has chips   fond
      "Who likes chips?

      a. ALI CHIND händ Pommfrit gärn
      b. Pommfrit händ ALI CHIND gärn

12.   What do all kids adore?
      a. CHIPS all kids adore
      b. All kids adore CHIPS

13.   Who adores chips?
      a. ALL KIDS adore chips
      b.??Chips ALL KIDS adore

The term "topicalisation" would seem to be inappropriate, particularly for English, if the effect is one of focusing. If we take "topic" to mean discourse topic, and the question signals what the topic is (viz. all the material apart from the wh-element), the answer and in particular the "new" part in the answer is the comment, which is at the same time focused. It is thus common to identify topic (or theme) with background and comment (or rheme) with focus.[5] Among German syntacticians, it is generally assumed that focus cannot be identified with a fixed position. Topic, on the other hand, is often correlated with the sentence-initial position. Haider (1984:73) writes: "Topics occur sentence-initially and a means of focusing in German is fronting." This would predict that the first position is filled with given material, which is clearly not always the case, as the above examples show. Haider further claims that whatever constituent appears clause-initially is stressed obligatorily unless it is a Nominative NP or an adverbial; these constituents need not be stressed. He implies that for some elements fronting means focusing whereas for others this

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[5] This is not without problems, though, as Jacobs (1984) has argued. He distinguishes topic/comment structure from background/focus structure for a number of reasons. One of them is the existence of background/focus structure within the comment and within the topic, as in (i):

(i) [top Was Luises jüngste Schwester betrifft],[com so wird sie wohl morgen kommen]
      what L's   youngest sister   concerns so will she PART tomorrow come
      "As for the youngest of Luise's sisters, she will probably come tomorrow"

Here, *jüngste* is the focus within the topic, and *morgen* is the focus within the comment. Correspondingly, there is a background within the topic and one within the comment.

is not the case. I claim that at least in ZH fronting need not mean focusing for any element, and it need not mean topicalisation for any element.

The asymmetry Haider observes with respect to Nominatives/adverbials versus objects is illustrated in the following by means of ZH examples:

14.   a. Das Problem, das intressiert mich
           this problem this interests me
           "As for this problem, it interests me"

        b. En Linguischt, dää intressiert das Problem
           a linguist   him interests this problem
           "As for a linguist, this problem interests him"

        c. Geschter, da hät sich öpper defür intressiert
           yesterday there has REFL someone for-it interested
           "Yesterday, someone was interested in this"

15.   a. Das Problem intressiert mich
           this problem interests me
        b. En Linguischt intressiert das Problem
           a linguist interests this problem
        c. Geschter hät sich öpper defür intressiert
           yesterday has REFL someone for-it interested

According to Haider's view of the corresponding German data, (14a) and (15a) are contextually equivalent, as are (14c) and (15c). (14b) and (15b) are said to be distinct, though, as the initial phrase in (14b) is a topic, but in (15b) a focused phrase. Haider assumes that this phrase is obligatorily stressed. This view cannot be upheld, though. For one thing, the object NP in (15b) does not require stress, as becomes clear if the example is slightly modified:

16.   En Linguischt intressiert vor allem DAS Problem DA
        a linguist   interests above all this problem here

In (16) the focus is clearly on the subject (as indicated by capital letters). Furthermore, if we look at examples as in (17) we notice that either of the two relevant constituents can be focus or topic, depending on intonation and

context (i.e. whether the previous discourse is about marmots or Grisons), but neither constituent can be focus and topic at the same time:

17.   a. Murmeltier gseet me im Graubünde
       marmots   sees one in Grisons
           TOP   FOC
           FOC   TOP

       b. Im Graubünde gseet me Murmeltier
          in Grisons   sees one marmots
             TOP   FOC
             FOC   TOP

Haider's contention that an initial object is obligatorily focused cannot be upheld, at least not as far as ZH is concerned. Nor is his distinction between topicalised and left-dislocated object phrases plausible. He regards left dislocation (LD) structures like (14) as explicit topic constructions and observes the following contrast: An initial subject or adverbial bears a topic role both in LD constructions (14) and in topicalisations (15). An initial object, however, is a topic if it is left-dislocated (14b), and a focus and non-topic when it is "topicalised" (15b). The use of the term "topicalisation" is paradoxical if it implies in the case of objects that they cannot be topics when they are topicalised. I do not agree with Haider's view that fronted objects are always the focus and never the topic of the clause. (17a) shows that a fronted object can very well be the topic. Fronting is clearly not synonymous with topicalisation. There appear to be two meanings of the term "topicalisation", viz. (i) focusing, i.e. emphasising, in the sense of the English "topicalisation" construction, and (ii) moving the topic of discourse, the theme, to the clause-initial position. These two notions are mutually exclusive, and at least in ZH fronting is not necessarily associated with either of these notions. The initial constituent may be the focus, if it receives stress, and likewise, it may well be the theme or topic of the clause, but neither of these two properties follow from fronting.

As for left dislocation, referred to as an "explicit topic construction" by Haider, there is some evidence that a left-dislocated constituent cannot bear the focus role. Fretheim (1978) notes that in Norwegian, the initial position

can accommodate topic or focus, but focus cannot be left-dislocated. His data below show that left-dislocation is possible in principle (18), but not when the initial phrase is overtly focused by means of, for instance, "at least" (19). Fretheim observes no contrast between subject, objects and adverbs.

18.   a. Mina kan du spoerre
          Mina can you ask

       b. Mina, henne kan du spoerre
          Mina, her   can you ask

19.   a. Iallfall Mina kan du spoerre
          at least Mina can you ask

       b.??Iallfall Mina, henne kan du spoerre

       c. Mina, iallfall henne kan du spoerre

The pattern Fretheim observes suggests that in Norwegian the LD-position is exclusively reserved for a topic/theme and can therefore not be focused. This observation carries over to ZH, where examples comparable to Norwegian (19b) are not completely ungrammatical, but not well-formed either (20); the regular variants are given in (21):

20.   a.??Mindeschtens de Rona, dere chönntsch öppis schänke
             at least   to-the R. to-her could (you) something give
             "At least to Rona, you could give her a present"

       b.?? Sogar em Max, dem isch nüt passiert
             even to-the M. to him is nothing happened
             "Even to Max, nothing happened to him"

21.   a. De Rona, mindeschtens dere chönntsch öppis schänke
             to-the R. at least   to-her could (you) something give

       b. Em Max, sogar dem isch nüt passiert
          to-the M. even to-him is nothing happened

Given that expressions like "at least", and "even" are focus markers, and assuming that focus and topic cannot reside in the same constituent

simultaneously, the above data indicate that the LD-position is reserved for topics (themes), whereas SpecCP, the position immediately to the left of the finite verb, is available to virtually any constituent, no matter what its discourse function is.

The examples in (21) cannot be dismissed as constructions involving hanging topics since the left-dislocated phrase is case-marked and agrees with the d-pronoun. Hanging topic constructions, in contrast, involve a Nominative topic and are characterised by the absence of case agreement:

22.   De Peter - Sogar dem hät si wele hälfe
      theNOM P. even himDAT has she wanted help

To conclude, the clause-initial position, SpecCP cannot be regarded as a designated topic position nor as a focus position. What is commonly referred to as "topicalisation" is merely fronting of a constituent to satisfy the V2-constraint, viz. the requirement that in a main declarative clause the finite verb occurs in second (constituent) position.[6] Left-dislocation, on the other hand, appears to serve a distinct discourse purpose, viz. to make a particular constituent more prominent. The same purpose is served by hanging topic and right-dislocation constructions, cf. (22) and (23) respectively.[7]

23.   Sogar dem hät si wele hälfe, em Peter
      even to-him has she wanted help, to-the Peter
      "Even him did she want to help, Peter"

Making a constituent more prominent or "discourse prominent" is not to be equated with focusing, which appears to be more of a sentence-internal matter. To distinguish ZH/German "topicalisation" from English topicalisation, which is a clear focusing process, I propose that the former should be referred to as "fronting". I will however continue to talk of topicalisation and topics when

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[6] I have no explanation of how the V2 constraint is derived, if it needs to be derived from anything, but assuming a "topic feature" in SpecCP (cf. Zwart 1993, among others) is no more explanatory than simply stating that one constituent needs to be fronted, and given that it fronted constituents need not be topics it is furthermore totally vacuous.
[7] Altmann (1981) refers to left-dislocation, right-dislocation, and hanging topic as forms of "Herausstellung".

referring to other people's work, for reasons of convention, and because topicalisation is used in distinction to wh-movement in the subsections that follow. The distinction between a topic and a fronted constituent will become relevant again in 2.7. below.

2.2. Analysing fronting: Cardinaletti (1986) et alia

Cardinaletti (1986) suggests that topicalisation is a special case of left-dislocation and that left-dislocated elements in German should be base-generated. She proposes the following structure:

24.

```
      CP
     /  \
   TOP    CP
         /  \
      Spec    C'
   operators  / \
   wh-,d-,e  C   IP
```
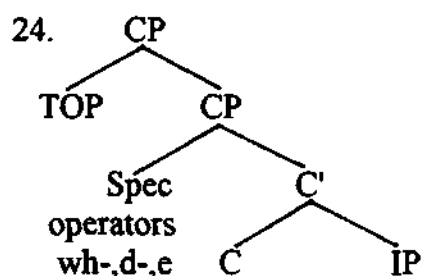
A topicalised phrase is base-generated in TOP and the SpecCP position is reserved for operators. In LD constructions, a d-pronoun resuming the topic phrase and coindexed with it is moved from IP to SpecCP. In topicalisations - and this includes all regular V2 clauses (contra what was discussed above) - the initial constituent is also generated in TOP and a coindexed empty category is moved from an IP-internal position to SpecCP. Unlike Koster (1978), who derives fronting from LD by deleting the element in SpecCP, Cardinaletti emphasises that the two constructions are syntactically different. She furthermore distinguishes a third construction, "free topic" (also referred to as "hanging topic", cf. above). Cardinaletti points out that the standard analyses of German V2 clauses involving movement of any one constituent to the position preceding the verb fails to account for the ungrammaticality of the (b) sentences in (25) and (26) (her examples are here rendered in ZH):

25. a. Emene Aaschlag uf sich$_i$, dem isch de Franz$_j$ knapp entchoo
      an   attack on self$_j$ this is   F.   barely escaped
      "Franz barely escaped an attack on himself"

    b.*Emene Aaschlag uf sich$_i$, de Franz$_j$ isch dem knapp entchoo
      an   attack on self   F.   is this barely escaped

    c. Emene Aaschlag uf sich$_i$, wer$_j$ isch dem knapp entchoo?
      an   attack on self who is this   barely escaped
      "An attack on himself$_i$, who$_j$ escaped this barely?"

26. a. Sis$_i$ Auto, das wäscht jede$_j$ eimal pro Monet
      his car   this washes everyone once per month
      "Everyone washes his car once a month"

    b.*Sis$_i$ Auto, geschter hät das jede$_j$ gwäsche
      his car yesterday has this everyone washed

    c. Sis$_i$ Auto, wer$_j$ hät das geschter nöd gwäsche?
      his car who has this yesterday not washed

With the left-dislocated element base-generated in TOP, the standard movement analysis allows any constituent to move to SpecCP. The (c)-examples show that the resumptive d-pronoun can remain in the middle field if a wh-pronoun is moved to SpecCP. Cardinaletti assumes that SpecCP, as an operator position, can be filled by d- and wh-pronouns, which enter an operator-variable relation with their traces, while no other lexical elements can do so.

Standard V2 clauses are generated independently from LDs but the initial phrase is also base-generated in TOP. An empty operator with feature [d] is generated in the middle field and moved to SpecCP from where it binds its trace. Following Cinque (1984), Cardinaletti takes this empty category to be *pro*, which undergoes wh-movement, or more exactly, d-movement to SpecCP. As has been pointed out by Haider (1987), the elements that can appear in TOP form a subset of all possible candidates for SpecCP. In particular, the following elements cannot occur in left-dislocated position:

27.   a. anaphors (e.g. *sich* "-self")
        b. quantifiers (e.g. *ali* "all")
        c. indefinite pronouns (e.g. *öpper* "somebody")
        d. sentence adverbs (e.g. *glücklicherwiis* "fortunately")
        e. NP-subconstituents[8]

Cardinaletti accounts for these differences between elements in TOP and SpecCP by requiring d-pronouns to have antecedents with referential content. Non-referential NPs cannot appear in TOP. It is not clear why this should be the case, but the generalisation appears to be valid. Note that sentence adverbs cannot be pronominalised.

The idea that topicalisation involves an empty operator is also defended in Bayer (1989:21): "What are topic phrases? A rough and ready characterization seems to be that they are discourse elements which are syntactically unconnected to the clause which they introduce. So there has to be an element in the clause which serves as a link between the topic phrase and a position in the clause to which it will correspond semantically." This may well be appropriate if we are dealing with examples like (28), but recall from above that the first constituent in a V2 clause is not necessarily a topic in the sense of discourse topic.

28.   Töff₁ weiss i nöd wer cha t₁ repariere
        motorbikes know I not who can repair
        "As for motorbikes, I don't know who can repair (them)"

Weerman (1989) also proposes to employ a TOP position followed by an operator position. He assumes that the generation of V2 clauses in Dutch involves movement of a wh-phrase, lexical or empty, to SpecCP, with an additional position available to the left for -wh-topics. Evidence for such an

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[8] Cf. (i) and (ii):
(i) Politiker känn ich nur korrupti
    politicians know I only corrupt
    "As for politicians, I only know corrupt ones"
(ii)*Politiker, die känn ich nur korrupti
    politicians these know I only corrupt
However, Cardinaletti (1987) points out that subconstituents may well be left-dislocated if resumption is by means of *solche*, ZH *settigi* as in (iii):
(iii) Italienischi Politiker, settigi känn ich nur korrupti
    Italian   politicians   such   know I only corrupt
    "As for Italian politicians, I only know corrupt ones"

account comes from the following three phenomena (Weerman 1989:53ff): (i) Topic drop:[9] Like German and ZH, Dutch allows topic drop (pronoun zap, null topic), illustrated in (29):

29.   a. 0_i geeft t_j Marie een boek
         gives M.   a book

      b. 0_i geeft Jan t_j een boek
         gives J.   a book

      c. 0_i geeft Jan Marie t_j
         gives J.   M.

Given the right context, a subject, indirect object or direct object can be omitted from clause-initial position. Weerman assumes that an empty wh-phrase is·involved in (29), ·which would explain why the omission from clause-internal position is ungrammatical: wh-movement to SpecCP is obligatory in Dutch. As for recoverability of the non-lexical wh-phrase, the conditions are clearly different from pro-drop and not dependent on verbal inflection. Weerman thus suggests the structure in (30):

30.   Jan [$_{CP}$ 0_i geeft$_k$ [$_{IP}$ t_i Marie een boek t_k]]
       J.   gives   M.   a book

He further assumes that the relation betwen *Jan* and the empty wh-phrase is ·not established by rules of sentence grammar, and that it is not necessary for the antecedent on the left of the empty wh-phrase to exactly fit the gap within the sentence. In contrast, in an analysis postulating movement of an XP to SpecCP there has to be a precise fit. This is crucial for his second piece of evidence: (ii) The topicalised phrase does not always fit the base position, e.g.

31.   a. Ons een boek geven zie ik Henk nog niet doen
         us   a book give see I H.   yet not do

      b.*Ik zie Henk nog niet ons een boek geven doen / doen geven
         I see H.   yet not us   a book give do / do give

---

[9] Cf. 2.8. below for a discussion of null topics in ZH.

Weerman's wh-movement analysis (32) predicts that the empty wh-phrase can be replaced by an overt one, as in (33):

32.   ons een boek geven 0_i zie$_k$ ik Henk nog niet t_i t_k doen

33.   Wat zie ik Henk nog niet doen? - Ons een boek geven
       what see I H. yet not do   us   a book give

Moreover, (iii) the antecedent is not necessarily an XP, while the gap is, as it should be derivable by wh-movement:

34.   a. Geld geven ziet hij Piet hen niet
          money give sees he P. them not

       b. Geslagen hebben we haar niet
          beaten   have   we her not

In (34a), an X' has been moved, on a movement account, in (34b) only an X. A wh-analysis predicts again that a gap of a wh-phrase can be constructed in the clause, and it can be shown that the sentences in (34) are as good as the question-answer pairs in (35):

35.   a. Wat ziet hij Piet hen niet? - Geld geven
          what sees he P. them not   money give

       b. Wat hebben we haar niet? - Geslagen
          what have   we her not   beaten

From this evidence Weerman concludes that SpecCP can only serve as a landing site for wh-phrases (overt or empty) and never for other XPs. He thus accounts for the similarities between topicalisation and wh-movement without invoking any deletion as in Chomsky (1977), and without conflating the two into one process.

A distinction between topic position and wh-position is also made by Kiparsky (1989). He argues that Germanic had the phrase structure in (36), which

developed from a similar structure of Indo-European, and for which he adduces evidence from Old English, Old High German and Old Icelandic.

36.

```
            S"
          /   \
      TOPIC    S'
             /   \
          COMP    S
          /  \    /\
        WH   Comp /  \
               /      \
          ...X...  ..XP...  ...V...
```
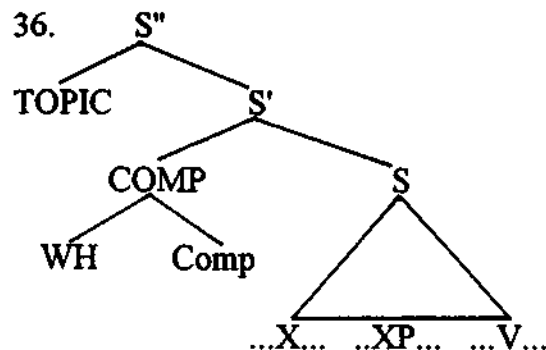
Verb movement is assumed to be to Comp and WH implies Comp. Furthermore, Comp is obligatory in subordinate contexts, whereas TOPIC occurs only in declarative main clauses. Taking WH and Comp to form one constituent is certainly plausible for ZH, where we not only find "doubly-filled COMP" of the type illustrated in (37) but also in constructions involving a demonstrative pronoun and the invariant relative marker *wo*, as in (38):

37.   Ich weiss nöd [COMP wem dass [ich säb Buech uusglehnt ha]]
       I know not   to who that   I that book lent   have

38.   Das isch de Schtudänt [COMP dem wo [du säb Buech uusglehnt häsch]]
       this is the student   him REL you that book lent   have

Kiparsky discusses evidence from older and contemporary Germanic languages for his claim that topics occur in a more peripheral position than wh-elements. I will ignore his older language data here and focus on contemporary data. English is quoted as displaying a reflection of the distinction between topic and wh-element in the following pair:

39.   a. Where will Max put a book?   (vs. *Where Max will put a book?)
       b. On the table Max will put a book

The following Swedish data (cf. also Wechsler 1990) are also relevant:

40.   a. I den här pannan, vad kunde vi laga?
          in this   pot   what could we make

b.*I den här pannan, vi kunde laga kaffe
   in this   pot   we could make coffee

Wechsler argues that an analysis employing only one position to the left of the finite verb fails to account for (40a). These Swedish data fit in with Cardinaletti's arguments for base-generation in TOP and wh-movement to SpecCP, as her analysis would explain why *vad* is possible in this position while *vi* is ruled out. However, as there is no correlate of the dislocated phrase, (40) might not qualify as LD structures. This appears to be the reason why Wechsler does not take (40) to be LD structures. Kiparsky (1989) on the other hand hypothesises that LD need not have a correlative pronoun. Maling & Zaenen (1981) for instance suggest that constructions such as (41) are cases of LD with missing resumptive pronoun. They point out that the Dutch and Icelandic translations of (41) have an obligatory pronoun "then", and that the presence of a resumptive pronoun cannot be taken to be a defining characteristic of LD.

41.   Yesterday, who did you visit first?

Wechsler (1990) generates a left-dislocated phrase outside CP, under E(xpression), implying that LD cannot occur in embedded contexts. Maling & Zaenen (1981) hold that LD cannot be embedded in Scandinavian, Dutch and German. Cardinaletti (1986) however shows that German does allow embedded LD, and the same can be said of ZH, as (42) shows:

42.   Ich glaub em Hans, dem söttsch scho hälfe
      I think theDAT H., him should PART help
    "I think, Hans, him you should help, really"

What is common to the analyses of Cardinaletti (1986), Weerman (1989), Kiparsky (1989) and Wechsler (1990) is that the topic position is more peripheral than the wh-position. Provided we posit one and the same structure for main and embedded clauses,[10] these structures seem to be in conflict with,

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[10] The null hypothesis, which I assume here, is that both V2 and verb-clauses, in root and embedded contexts, are CPs. There are a number of differences between these two clause types, and particularly between the respective initial positions, SpecV2 and Spec*dass.* For a detailed discussion, which

on the one hand, data from Yiddish (and Icelandic) exhibiting verb-second violations of the form wh-subject-verb, and on the other hand, the common assumption that in English, topicalisation is adjunction to IP.

2.3. Verb-second violations in Yiddish

In Yiddish both main and subordinate clauses are subject to the V2 constraint.[11] While in German and ZH certain verbs have the option of complementiser-less V2 complements, Yiddish subordinate clauses are V2 regardless of the presence of a complementiser. Moreover, Yiddish exhibits topicalisation in main as well as in embedded clauses. Diesing (1990) provides the following data:

43. a. Max shikt avek dos bukh
         M. sends away the book

     b. Avrom gloybt az Max shikt avek dos bukh
         A.   believes that M. sends away the book

44. a. Dos bukh hot Max geleyent
         the book has M.   read

     b. Ir zolt visn zayn, mayne libe kinderlekh, as vayn ken men makhn
         you should know be my dear children that wine can one make

         fun troybn oykh
         from grapes also

     c. Es iz a shod vos hayntike tsaytn kenen azoy fil mentshn nit leyenen
         it is a shame that today's times can so many people not read

Wh-constructions display an asymmetry with respect to main and embedded clauses. In matrix clauses, the initial wh-word counts for the V2 constraint

---

largely carries over to ZH data, under the heading *"Uniformitäts- versus Differenzthese"* cf. Stechow & Sternefeld (1988:388ff).

[11] The same is true of Icelandic, and the V2 violations in embedded contexts appear to be similar to those of Yiddish, i.e. wh-subject-verb appears to be possible. The data are not clear to me, though, and I will therefore not discuss Icelandic.

(45a), but in embedded contexts it does not (45b). Furthermore, topics cannot co-occur with wh-elements in main clauses (46a), but in embedded contexts this is possible (46b).There is some disagreement as to whether only subject-topics can occur on the right of an embedded wh-element or not. According to Diesing, non-subject topics may not be uniformly good in all contexts and may need an added emphasis, such as the particle *ot* in (47), but she does not think that they ought to be ruled out:

45. a. Vuhin geyt ir?
        where go you

     b. Ikh veys nit vuhin ir geyt
        I know not where you go

     c. Ikh veys nit vos Max shikt avek
        I know not what Max sends away

46. a. *Ver haynt hot gegesn dos broyt?
        who today has eaten   the bread

     b. Zi iz gekumen zen ver frier vet kontshen
        she is come   see who earlier would finish

47. a. ?Ikh veys nit tsi dos bukh hot er geleyent
        I know not whether the book has he read

     b. Ikh veys nit tsi ot dos bukh hot er geleyent
        I know not whether that book has he read

Diesing explains the difference between (47a) and (47b) in terms of the dual nature of the position in which she assumes *(ot) dos bukh* to be, viz. SpecIP. If this position is occupied by the subject it is an A-position and thus not emphasised. If a non-subject is topicalised into SpecIP it is an A'-position, and as an operator position it requires extra emphasis. Embedded topicalisation is taken to be odd in the context of an embedded question, hence further emphasis is required to resolve the clash between these two processes. If the topicalised phrase is contrastive and occurs in a discourse as in (48), the sentence is perfectly well-formed (Diesing 1990:66f):

48.   Ikh veys nit far vos IN TSIMER shteyt di ku.
        I   know not for what in room   stands the cow
        "I don't know why the cow is in THE ROOM.

        INEM GORTN zol di ku shteyn!
        in-the garden   should the cow stand
        "The cow should be in THE GARDEN."

It appears that in Yiddish embedded contexts there are two positions available
before the finite verb, provided the first one is occupied by a wh-element and
the second one by the subject.

2.4. Topicalisation versus adjunction to IP: Müller & Sternefeld (1990/93)

Baltin (1982) proposes to analyse topicalisation in English as adjunction to IP
(S at the time), on the basis of data in which topicalisation and wh-movement
cooccur, as in (49), and data in which a topicalised NP appears to the right of a
complementiser, as in (50):

49.   He's a man to whom liberty we could never grant

50.   It's obvious that Mary, he can't stand

Baltin moreover quotes Icelandic evidence from Maling & Zaenen (1977)
which shows that topicalisation and wh-movement must be distinguished.
Müller & Sternefeld (1990, 1993) argue that analysing (embedded)
topicalisation as adjunction to IP would equate it with scrambling (which is
what for instance Lasnik & Saito (1992) argue for) and they point out that
there are a number of differences between the two processes (1993:480ff):[12] (i)
topicalisation can take place only once, whereas scrambling can easily be
iterated, as evidenced by the German example (51):

51.   ..dass dem Fritz$_j$ diese Geschichte$_k$ [$_{IP}$ niemand t$_j$ t$_k$ glaubt]
        that the F. this story   nobody   believes
        "that nobody believes Fritz this story"

---

[12] The following discussion is confined to four of the six differences Müller & Sternefeld adduce.

(ii) Topicalisation creates strict islands for wh-movement, whereas scrambling has no effect on extractability. This contrast is illustrated by their German examples in (52):

52.   a.*Ich weiss wen$_i$ du sagtest [$_{CP}$ Ede$_k$ habe$_j$ [$_{IP}$ t$_k$ t$_i$ getroffen t$_j$]]]
          I know whom you said   E.   has   met

        b. Wie$_i$ meinst du [$_{CP}$ t$_i$' dass dieser Frau$_k$ [$_{IP}$ Ede t$_i$ t$_k$ geholfen hat]]?
          how think you   that this woman   E.   helped has
          "How do you think that Ede helped this woman?"

(iii) Scrambling in German is clause-bound (53), whereas topicalisation is not (54):

53.   · *dass niemand Pudding$_i$ sagt [$_{CP}$ t$_i$' dass sie t$_i$ mag]
        that nobody pudding says   that she likes

54.   a. Pudding$_i$ glaube ich [$_{CP}$ t$_i$' würde sie t$_i$ mögen]
          pudding believe I   would she like
          "Pudding, I believe she would like"

        b. Pudding$_i$ glaube ich [$_{CP}$ t$_i$' dass sie t$_i$ mögen würde]
          pudding believe I   that she like   would
          "Pudding, I believe that she would like"

(iv) In German, embedded topicalisation is only possible in the complement of bridge verbs and ruled out in CP complements of non-bridge verbs,[13] whereas scrambling to an IP-adjoined position is not restricted in this way:

55.   a. Ich glaube [$_{CP}$ den Fritz$_i$ mag jeder t$_i$]
          I believe   the F. likes everyone

        b.*Ich bedaure [$_{CP}$ den Fritz$_i$ mag jeder t$_i$]
          I regret   the F. likes everyone

---

[13] Bridge verbs are, e.g. *hoffen* "hope", *glauben* "believe", *wünschen* "wish", *sagen* "say", *behaupten* "claim"; non-bridge verbs include *bedauern* "regret", *bemerken* "remark; notice", *beabsichtigen* "intend" etc. (Haider 1984:79)

56.   a. Ich glaube [cp dass dem Fritz_j [ip diese Frau t_i ein Buch gibt]]
          I believe   that to the   F.   this woman a   book gives

       b. Ich bedaure [cp dass dem Fritz_j [ip diese Frau t_i ein Buch gibt]]
          I regret   that to the   Fritz   this woman a   book gives

Müller & Sternefeld conclude from these asymmetries that topicalisation cannot be analysed as adjunction to IP. They then proceed to show that topicalisation must be distinguished from wh-movement.

2.5. Topicalisation versus wh-movement: Müller & Sternefeld (1990/93)

The differences between topicalisation and wh-movement which Müller & Sternefeld (1993:484ff) discuss are as follows. (i) In Germanic, a topic occurs with a complementiser to its left, whereas a wh-phrase can only occur with a complementiser on its right (in those varieties of German where "doubly-filled COMP" is possible):

57.   a. Bill says [cp (that) John_i (*that) [ip Mary doesn't like t_i]]

       b. Ich weiss nicht [cp (*dass) wen_i (dass) [ip du t_i gesehen hast]]
          I know not   that whom that   you seen   have

       c.*Ich glaube [cp den Fritz_i dass [ip sie t_i gesehen hat]]
          I believe   the F.   that   she   seen   has

(ii) A topic can fill the initial position of an embedded V2 complement in German, whereas a wh-phrase cannot:

58.   a. Ich glaube [cp den Fritz_i hat [ip sie t_i gesehen]]
          I believe   the F. has   she   seen

       b.*Ich sagte [cp wen_i hat [ip sie t_i gesehen]]
          I said   who has   she   seen

       c. Ich sagte [cp wen_i (dass) [ip sie t_i gesehen hat]]
          I said   who   that   she   seen   has

Müller & Sternefeld conclude that topics are "V-oriented", while wh-phrases are "C-oriented". Further instances of asymmetries they discuss have to do with extraction: (iii) Topic islands seem to be much stricter than wh-islands in Germanic. This contrast is illustrated with the German examples in (59):

59.   a.*Radios_i glaube ich [CP gestern hat Ede t_i repariert]
       radios believe I   yesterday has E.   repaired

       b.??Radios_i, weiss ich nicht [CP wie (dass) man t_i repariert]
       radios know I   not   how that one   repairs

(iv) Extraction of a wh-phrase across an island is always bad, with both topic and wh-islands:

60.   a.*Was_i glaubst du [CP gestern hat Ede t_i repariert]?
       what believe you   yesterday has E.   repaired

       b.*Welches Radio_i weisst du nicht [CP wie (dass) man t_i repariert]?
       which   radio   know you not   how that   one   repairs

It is concluded that topicalisation is not to be equated with adjunction to IP nor with movement to SpecCP. Instead, topicalisation is movement to the specifier position of a separate projection, TP (topic phrase), which is located between CP and IP. Wh-movement, as before, is to SpecCP. In their account the wh-position is more peripheral than the topic position, i.e. the linearisation is WH-C/verb-TOPIC-verb, and thus contrasts with the TOPIC-WH/Comp-structure posited by Kiparsky and referred to above. Müller & Sternefeld's structure also runs counter to the standard approach which moves the finite verb to COMP in order to reflect the complementary distribution of verb and complementiser. The position of the finite verb in V2 clauses depends on the constituent preceding it. Thus, in a declarative V2 clause, the finite verb is in T, since the topic is in SpecTP. In an interrogative clause the verb is in C, with the wh-element or a question operator in SpecCP:

61.   a. [CP [C e] [TP Den Fritz_i sah_k [IP jeder t_i t_k]]]
          the F.   saw   everyone

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61.   a. [$_{CP}$ [$_C$ e] [$_{TP}$ Den Fritz$_i$ sah$_k$ [$_{IP}$ jeder t$_i$ t$_k$]]]
          the F.   saw   everyone

b. [CP Weni [C sahk] [TP [T tk] [IP jeder ti tk]]]   --
     whom   saw   everyone

c. [CP Q [C sahk] [TP [T tk] [IP der Fritz dich tk]]] ?
      saw   the F. you?

The V2 phenomenon is now derived by means of mechanisms and assumptions for which I refer to Müller & Sternefeld (1993:498ff). The analysis they propose involves a "Pollockised" structure. In the following I would like to pursue a different approach and examine the relevant ZH data with a view to exploring whether less structure may also lead to an adequate analysis.

2.6. Long movement in ZH

Consider the distinctions Müller & Sternefeld observe between wh-movement and topicalisation in German with respect to ZH data. As for (i), ZH patterns with German: (i) A topic occurs with a complementiser to its left, whereas a wh-phrase can only occur with a complementiser on its right.[14] (ii) A topic can fill the initial position of an embedded V2 complement, whereas a wh-phrase cannot. In this respect ZH also patterns with German.[15] (iv): Extraction of a wh-constituent across any island is ruled out in German; in ZH though, many of these cases are good, cf. (69) below, where this is discussed. (iii) Topic islands in German seem to be much stricter than wh-islands. Here German and

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[14] It is not quite clear to me, though, what the status of a multiple-wh-question like (i) is, where a wh-element follows the complementiser, yet does not occur in situ (and assuming that wh-elements cannot be scrambled!); the expected answer is a list, e.g. "the record to Ann, the book to Bill, etc.":
(ı) Weles Gschänk meinsch dass wem de Chlaus git?
   which present think you that to-whom the C. gives
 "Which present do you think Chlaus will give to whom?"
[15] An exception are questions of the type in (i) and (ii), which are, however, confined to the pattern weisch-wh-verb and not productive as such:
(i) Weisch wer chunnt morn?
   Know2s who comes tomorrow
   "Do you know who's coming tomorrow?"
(ii) Weisch wem ha-n-i das ggää?
   know2sg to who have I this given
   "Do you know who I've given this to?"

ZH diverge. Extractions out of V2-complements are possible even if the embedded SpecCP is filled, provided the filler is a subject:[16]

62.   a. Dää Film$_i$ ha-n-i gmeint, d Chind weled t$_i$ luege
this film have I thought the children want see

     b. *Dää Film$_i$ ha-n-i gmeint, jetz weled d Chind t$_i$ luege
this film have I thought now want the children see

     c. *D Chind$_i$ ha-n-i gmeint, dää Film$_j$ weled t$_i$ t$_j$ luege
the children have I thought this film want see

Long movement of an adjunct across an embedded subject in SpecCP is illustrated in (12):

63.   a. [I dem Kino]$_i$ han i gmeint, d Chind weled t$_t$ dää Film luege
in this cinema have I thought the children want this film see

     b. *[I dem Kino]$_i$ han i gmeint, dää Film weled d Chind t$_i$ luege
in this cinema have I thought this film want the children watch

Extractions (long topicalisations) out of wh-introduced complements are generally acceptable, hence

64.   a. Radios$_i$ han i kei Ahnig wie (dass) me t$_i$ repariert
radios have I no idea how that one repairs

     b. I dem Kino$_i$ weiss i nöd wele Film (dass) d Chind wänd luege
in this cinema know I not which film that the kids want watch

For both (63a) and (64) the question arises how long movement is supposed to proceed, if the standard escape hatch SpecCP is not available for a trace. The subject/non-subject asymmetry observed in (63) suggests that only non-subjects create a topic island. This raises the question whether the clause-initial subject occupies a lower position in the tree than clause-initial non-subjects - an idea that has been implemented in analyses by Travis (1984) and

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[16] Note that the subject in the lower SpecCP can also be an expletive, as in (i):

(i) Sonen Unfall glaub ich es isch em a dere Schtell scho mal passiert
such-an accident think I it is to-him at this place already once happened
"Such an accident I think (it) happened to him at this place once before"

more recently by Zwart (1992, 1993). Both Travis and Zwart assume that non-subjects are topics moved to SpecCP, whereas a subject is generated or moved to SpecIP (or SpecAgrSP in Zwart's account). In non-subject initial V2 clauses the finite verb is in C. In subject-initial V2 clauses, however, the finite verb is assumed to occupy a left-peripheral functional head, INFL (or AgrS). It was argued in Chapter 2 that there is insufficient evidence for a functional projection in the middle field. Also, I believe that word order issues should not be resolved by postulating functional heads wherever landing sites are required, unless the functional projections receive independent motivation. What is more, the asymmetry with respect to pronouns, on which both Travis' and Zwart's analyses are based, is not confirmed by ZH (cf. Chapters 2 and 3). An alternative approach is needed.

As we have just seen, ZH permits extractions out of V2 complements even across a filled initial position, provided the filler is the embedded subject. The data in (65) complete the pattern. They show that the subject can also occur on the right of the verb, i.e. it does not have to be in initial position (65a), and that wh-extraction is possible, too (65b-d):

65.   a. Dää Film ha-n-i gmeint weled d Chind luege
          this film have I thought want the kids see

       b. Wele Film häsch gmeint weled d Chind luege?
          which film have (you) thought want the kids see

       c. Wele Film häsch gmeint d Chind weled luege?
          which film have (you) thought the kids want see

       d. Weli Chind meinsch weled dää Film luege?
          which kids think (you) want this film see

       e.*Weli Chind meinsch dää Film weled luege?
          which kids think (you) this film want see

Next, we turn to extractions out of *dass*-complements. Both long wh-movement and long topicalisation are generally grammatical:

66.   a. Was_i meinsch [_CP t_i' dass chönnt t_i passiert sii?]   -
         what think (you) that could happened be
         "What do you think could have happened?"

       b. Wer_i meinsch [_CP t_i' dass de Peter gern würd t_i iilade?]
         who think (you) that the P. gladly would invite
         "Who do you think that Peter would like to invite?"

       c. Woane_i meined er [_CP t_i' dass mer söled t_i go wandere?]
         where think you that we should go hike
         "Where do you think that we should go hiking?"

67.   a. De Hans_i glaub i nöd [_CP t_i' dass t_i a dere Konferänz en Vortrag git]
         the H. think I not that at this conference a lecture gives
         "Hans I don't think that will give a lecture at this conference"

       b. De Hans_i find i nöd [_CP t_i' dass mer müend t_i iilade]
         'the H. think I not that we must invite
         "Hans I don't think that we have to invite"

       c. I d Pyrenäe_i meint er [_CP t_i' dass mer söled t_i go wandere]
         in the Pyrenees thinks he that we should to hike
         "In the Pyrenees he thinks that we should to hiking"

Since the standard assumption is that long movement is through SpecCP, intermediate traces are placed in this position. When extractions out of wh-complements are considered, SpecCP is already filled by the wh-element, on the usual assumptions. Long topicalisations are possible, as was already shown in (64), repeated here as (68b/c). Wh-extractions are also possible in principle (69):

68.   a. De Peter_i weiss i nöd [_CP wänn (dass) t_i sött aachoo]
         the P. know I not when (that) should arrive

       b. Radios_i han i kei Ahnig [_CP wie (dass) me t_i repariert]
         radios have I no idea how (that) one repairs

       c. I dem Kino_i weiss i nöd [_CP wele Film (dass) d Chind wänd luege]
         in this cinema know I not which film (that) the kids want watch

69.   a. Weles Gmües$_i$ weisch nöd [$_{CP}$ wo (dass) t$_i$ wachst?]
       which vegetable know(you) not where (that) grows

       b. Was für Grät$_i$ weisch nöd [$_{CP}$ wie (dass) me t$_i$ repariert?]
       what for gadgets know (you) not how (that) one repairs

       c. I welere Bar$_i$ wüssed mer nöd [$_{CP}$ wie (dass) me t$_i$ en Schwips überchunnt?
       in which bar know we not   how (that) one a   high   gets

       d.*Wer$_i$ weisch nöd [$_{CP}$ wänn (dass) t$_i$ sött aachoo?]
       who know (you) not when (that) should arrive

       e. ?*I welem Kino$_i$ weisch nöd [$_{CP}$ wele Film (dass) d Chind t$_i$ wänd luege?]
       in which cinema know (you) not which film (that) the kids want see

A possible explanation for the contrasts between the grammatical and ungrammatical constructions in (69) is discussed in 2.7. below. Note by the way that even (69d/e) are perfectly acceptable as echo questions. What are echo questions? Engdahl (1986:71f) characterises echo questions as sentences requiring heavy stress on an unmoved wh-phrase, as in (70):

70.   a. You ordered WHAT?

       b. You said that WHO came?

It seems to me that the wh-phrase does not necessarily have to occur in situ in an echo question, but can in principle occur anywhere the questioned phrase or subphrase occurs, as in the following exchange:

71.   The ABC constraint we don't consider relevant in this context

       The WHAT constraint you don't consider relevant?

In (69), heavy stress on the initial wh-phrase and a specific intonation produces echo questions which are conceivable responses to the sentences in (68a/c), in case the hearer has not been able to make out the initial phrase. I agree that "echo-questions are metalinguistic requests for clarification of some distorted part of a previous utterance and not genuine questions" (Engdahl 1986:72). The main differentiating factor between wh-questions and echo-wh-

questions then appears to be the high and rising intonation associated with the latter and the strong stress the echo-wh-phrase receives. It may look somewhat inconsistent to rule out echo questions on the basis of intonation, if I ignore intonation as a delimiting factor in other areas of the syntax (cf. Chapter 2), but Janda (1985) has shown convincingly that echo-wh-elements behave quite differently from non-echo-wh-elements and that there is no derivational relation between these two categories.

Finally, consider extractions across *öb*, "whether". I take *öb* to be located in C rather than in SpecCP, since unlike wh-elements it cannot combine with *dass*. Like *dass*, it allows long movement across itself:

72.   a. Ich weiss nöd öb (*dass) de Peter chunnt
          I   know not whether (that) the P.   comes

       b. De Peter$_i$ weiss i nöd [$_{CP}$ t$_i$' öb t$_i$ chunnt]
          the P.   know I not   whether comes

       c. Weli Gescht$_i$ weisch nöd [$_{CP}$ t$_i$' öb t$_i$ chömed?]
          which guests know (you) not whether come

       d. [Um die Ziit]$_i$ weiss i nöd [$_{CP}$ t$_i$' öb scho öpper t$_i$ daa isch]
          at this time know I not   whether already someone here is

The various types of extraction are summarised in (73). No distinction between subjects and non-subjects is required except where indicated:

73.   a. +/-wh$_i$.....[$_{CP}$ t$_i$ V...t$_i$.....]
       b. +/-wh$_i$.... [$_{CP}$ subj V ...t$_i$..]   where the subject is -wh
       c.* +/-wh$_i$....[$_{CP}$ +/-wh V ...t$_i$..]
       d.* subj$_i$...   [$_{CP}$ +/-wh V .t$_i$ ...]

       e. +/-wh$_i$....[$_{CP}$ t$_i$ dass/öb ..t$_i$ ...]

       f. +/-wh$_i$ ...[$_{CP}$ +wh (dass)...t$_i$...]

In words, +/-wh-extractions are possible out of V2 complement clauses if the embedded SpecCP is empty or occupied by a -wh-subject (73a-d). Furthermore, +/-wh-extractions are possible out of verb-final complement

clauses if the embedded SpecCP is empty or occupied by a wh-phrase (73e/f). Recall that a -wh-phrase cannot fill an embedded SpecCP.

2.7. Real topicalisation: discourse prominence

I propose that movement to the higher SpecCP is real topicalisation in the sense of effecting discourse prominence of the moved constituent (cf. above). The higher SpecCP position can be compared to the position occupied by a left-dislocated constituent. In contrast, movement to the local SpecCP, which I refer to as fronting, merely serves the purpose of satisfying the V2 constraint. If there is a clause-initial position in addition to SpecCP, this position is always a discourse topic (discourse prominent) position, whereas the SpecCP position itself need not but can be a topic position. This is illustrated in (74), where "complex clause" is meant to refer to two clauses knitted into one, as it were, by means of long movement of an embedded constituent to the higher SpecCP ("Satzverschränkung"):

74.   a. [$_{CP}$ +/-topic C ....]   simplex clause
       b. [$_{CP}$ +topic [$_{CP}$ -topic C .....]]   left dislocation structure
       c. [CP +topic C..[$_{CP}$ +topic [$_{CP}$ -topic C ..]]]   complex clause

The term "topic" comes close to discourse theme, as opposed to rheme. My claim is that with respect to the left-peripheral positions this discourse notion is-syntactically relevant. The LD position and the higher SpecCP position (if an embedded constituent has been mvoed into it) are always +topic positions. In a simplex clause, however, SpecCP is not necessarily the topic position. It is arguable that topicalisation to this position has become grammaticalised, due to the V2 constraint, and has thus lost some of its discourse function. Left-dislocation and long topicalisation, though, are optional processes and the constituents undergoing these processes are therefore much more prominent. This approach differs from the ones of Cardinaletti (1986), Weerman (1989) and Kiparsky (1989) in that topic is not confined to a position, and from Kiparsky's (1989) in that the LD position is always available. What is more, it is dynamic, as the number of possible topic positions depends on whether we are dealing with a single clause (one), a clause simply embedding another

(two), or a clause embedding another involving long movement to the higher SpecCP (one).

What, then, are the syntactic reflexes of the discourse notion "topic" or "discourse prominence"? Recall from above that Kiparsky assumed that the C-projection contains two operator positions, -wh and +wh. I also assume that there are two positions on the left of C, but that they are instead characterised +topic -topic, assuming that only one constituent at a time can be discourse prominent. This distinction cuts across the +/-wh classification. Whatever moves to the higher SpecCP moves through the position specified +topic, by necessity, since this constituent is also specified +topic. In other words, the LD position is always available for movement through it, much as SpecCP in standard accounts. It may be objected that there is no reason to assume an LD position in *dass*-clauses[17], but it turns out that LD is compatible with a verb-final clause (75a). Moreoever, long movement is blocked when the embedded LD position is filled (75c), but not when the embedded SpecCP is filled (75d):

75.   a. Em Peter, dass/öb dem öpper sött hälfe weiss ich gar nöd
          to-the P.   that/whether to-him someone should help know I not
          "Peter, that/whether someone should help him I don't know"

       b. ?Ich find gar nöd em Peter, dass dem öpper sött hälfe
          I   think at all not to-the P. that to-him someone should help

       c. *Hälfe$_i$ find ich gar nöd em Peter, dass dem öpper sött t$_i$
             help   think I at all not to-the P. that to-him someone should

       d. Em Peter$_i$ weiss ich gar nöd [CP t$_i$ [CP wie dass [..dem...]]]
          to-the P.   know I at all not   how that   to-him

Em Peter in (75a) cannot be in SpecCP, since SpecCP in verb-final clauses can only be filled by a wh-element.[18] Since this NP is case-marked it must be within the clause, and the obvious position is the LD position, adjoined to CP.

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[17] Cf. (42) above for an example of an embedded LD in a V2 clause.
[18] Bavarian makes an interesting exception to this rule by allowing topic NPs in Specdass under certain circumstance, viz. if the dass-clause occurs either on its own or in the SpecCP position of another clause,
as example (i) from Bayer (1984:213) illustrates. Cf. also Grewendorf (1988:254).

Not all elements qualify as discourse prominent topics. A negatively quantified NP for instance cannot refer to anything given in the discourse. The prediction is that it can thus not be topicalised in the real sense, i.e. neither left-dislocated nor long-moved, whereas fronting should still be possible. This prediction is borne out by the data:

76.   a. Niemert hät das komische Fleisch ggässe
          nobody has this strange   meat eaten

       b.*Niemert, dää hät das komische Fleisch ggässe
          nobody he has this strange   meat eaten

       c. ?*Niemert glaub ich dass das komische Fleisch ggässe hät
          nobody think I   that this   strange meat   eaten has

77.   a. Niemertem hät die Party gfale
          to-nobody has this party pleased
          "Nobody liked this party"

       b. Niemertem, dem hät die Party gfale
          to-nobody, to-him has this party pleased

       c. ?*Niemertem glaub ich dass die Party gfale hät
          to-nobody think I that this party pleased has

In contrast to extractions out of verb-final complements, extractions out of V2-complements appear to be good:

78.   a. Niemert glaub ich hät das komische Fleisch ggässe
          nobody think I   has this strange   meat eaten

       b. Niemertem glaub ich hät die Party gfale
          to-nobody think I has this party pleased

(i) Da Xaver dass an Mantl kaffd hod hod neamt glaubt
   the Xaver that a coat bought has has nobody believed
   "Nobody believed that Xaver bought a coat"
It is possible that (i) is a case of Left Dislocation, though, cf. (75a).

The contrast between (78) and the (c)-examples in (76/77) suggests that we are not dealing with movement in (78) but with parenthetical constructions. Recall from the list (27) of elements which cannot be left-dislocated, that indefinite pronouns are among this group. As expected, expressions like *öpper* "somebody" and *öppis* "something" cannot be long-moved either, although simple fronting is perfectly possible:

79.   a. Öpper hät das komische Fleisch ggässe
          somebody has this strange meat eaten

       b. *Öpper, dää hät das komische Fleisch ggässe
          somebody, he has this strange meat eaten

       c. *Öpper glaub ich dass das komische Fleisch ggässe hät
          somebody think I that this strange meat eaten has

80.   a. Öppis wott er mir uf de Geburtstag schänke
          something wants he to-me on the birthday give
          "He wants to give me something for my birthday"

       b. *Öppis, das wott er mir uf de Geburtstag schänke
          something this wants he to-me on the birthday give

       c. *Öppis glaub ich dass er mir uf de Geburtstag schänke wott
          something think I that he to-me on the birthday wants

The same correlation between LD and long movement can be shown with sentence adverbs such as *glücklicherwiis* "fortunately" and *wahrschiinli* "probably":

81.   a. Glücklicherwiis/Wahrschiinli hät er nüt vo dem Fleisch ggässe
          fortunately   / probably   has he nothing of this meat eaten
          "He fortunately/probably has not eaten of this meat"

       b.*Glücklicherwiis/Wahrschiinli, so hät er nüt vo dem Fleisch ggässe
          fortunately   / probably so has he nothing of this meat eaten

c.*Glücklicherw./Wahrschiinli mein ich dass er nüt vo dem Fleisch ggässe hät
     fortunately   probably   think I   that he nothing of this meat eaten has

In the case of wh-phrases, a distinction must be made between LD and long movement. Wh-phrases cannot be left-dislocated (82a), suggesting that they are not discourse prominent. A form of long LD is possible (82b), though.[19] And, interestingly, right-dislocation of wh-phrases is also possible (82c).

82. a. *Welem Chällner, wem händ er s gseit?
        to-which waiter, to-whom have you it said

     b. Welem Chällner meinsch wem händ si s gseit?
        to-which waiter think you to-whom have they it said

     c. Wem händ er s gseit, welem Chällner?
        to-whom have you it said, to-which waiter

But if wh-phrases are not discourse prominent, how can they be moved to the higher SpecCP, given that this is a discourse prominent position if it is filled by an element from an embedded clause? The contrasts between grammatical and ungrammatical wh-extractions out of wh-*dass*-complements in (69) above, repeated in (83), receive an explanation if a distinction is made between +topic and -topic wh-phrases. Typically, wh-phrases including an N or NP are +topic, while "bare" wh-elements are -topic.

83. a. Weles Gmües$_i$ weisch nöd [$_{CP}$ wo (dass) t$_i$ wachst?]
        which vegetable know(you) not where (that) grows

     b. Was für Grät$_i$ weisch nöd [$_{CP}$ wie (dass) me t$_i$ repariert?]
        what for gadgets know (you) not how (that) one repairs

   c.I welere Bar$_i$ wüssed mer nöd [$_{CP}$ wie (dass) me t$_i$ en Schwips überchunnt?]
        in which bar know we not   how (that) one a   high   gets

     d.*Wer$_i$ weisch nöd [$_{CP}$ wänn (dass) t$_i$ sött aachoo?]
        who know (you) not   when (that)   should arrive

---

[19] This construction is reminiscent of structures of the kind in (i), except that in (i) the initial wh-element appears to function as a scope marker, whereas in (82b) the initial wh-phrase is more specific than the lower wh-element.
(i) Was meinsch wem händ si s gseit?
    what think you to-whom have they it said
    "What do you think who did they say it to?"

e. ?*I welem Kino₁ weisch nöd [cp wele Film (dass) d Chind t₁ wänd luege?]
   in which cinema know (you) not which film (that) the kids want see

On this account (83e) is ungrammatical because both wh-phrases are +topic.[20]
Long movement of a topic proceeds through the lower topic position (the LD
position). If the latter is already filled by a topic phrase, long movement is
blocked. The embedded SpecCP is left open for wh-phrases. This explains
why extraction across doubly-filled COMP is always possible. What about
extractions out of V2 complements in which SpecCP is occupied by the
subject? Why should these be grammatical? Two possibilities come to mind.
(i) The subject can move to SpecCP "just so", being a kind of default topic,
whereas no other constituent can move there because no other constituent
needs to move there, on the assumption that SpecCP is a mere fronting
position, to be filled to satisfy the V2 constraint. (ii) We are dealing with
"surfacy" subject-verb inversion, and this might account for the Yiddish data
too. This second explanation seems less stipulative, and is further supported by
evidence from V1 complements, to be discussed in 2.9. below.

2.8. Null topics

The phenomenon of "null topics" or "topic drop" (cf. Chapter 3, section 2.1.1.)
should provide some information on what can qualify as a discourse topic,
since only an element given in the discourse can be omitted from clause-initial
position, or else there would be no way of recovering its content. Topic drop is
possible in virtually all the Germanic V2 languages. As an earlier label of the
phenomenon, "pronoun zap"[21] indicates, it is generally believed to affect
pronouns only, as in German (84), from Cardinaletti (1990:75):

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[20] Bader (1990:16) notes that in the Bernese dialect wh-extractions out of wh-complements are only
good with referential adjuncts, as in (i):
(i) ?Wenn weisch no nid waas dass wotsch mache?
    when know you not yet what that want you do
    "When don't you know yet what you want to do?"
My judgements diverge as I consider the ZH equivalent of (i) ungrammatical. The notion
"referential" is probably related to my idea of topic, but I fail to see how "when" can be referential.
[21] Due to J.R. Ross (1982) I believe.

84.　a. _ Habe ich gestern gekauft
　　　　　have I yesterday bought
　　　　　"I bought it yesterday"

　　　b. _ Habe es gestern gekauft
　　　　　have it yesterday bought
　　　　　"I bought it yesterday"

(85) illustrates the same phenomenon in ZH, and shows that the null element must be in SpecCP, and that only one null element of this kind is possible per sentence (cf. also Huang 1984):

85.　a. _ Hät er geschter kauft
　　　　　has he yesterday bought
　　　　　"He bought it yesterday"

　　　b. *Geschter hät er _ kauft
　　　　　yesterday has he bought

　　　c. _ Hät s geschter kauft
　　　　　has it yesterday bought

　　　d.* Geschter hät _ s kauft
　　　　　yesterday has   it bought

　　　e. *_ Hät _ geschter kauft
　　　　　has yesterday bought

Null topics are impossible in an embedded SpecCP. This is not surprising in the case of verb-final complements, since non-wh-elements cannot occur before the complementiser anyway, but it is unexpected in the case of embedded V2, unless this position is explicitly recognised as a -topic position, as in the account I propose.

86.　a. *Ich glaub er/_ dass es geschter kauft hät
　　　　　I think he/_ that it yesterday bought has

　　　b. Ich glaub er hät-s geschter kauft
　　　　　I think he has it yesterday bought

c.*Ich glaub _ hät-s geschter kauft
I think has it yesterday bought

Consider the possibilities when the subject of the main clause is coreferent with that of the embedded clause: A null topic in the lower SpecCP is only possible if the coreferent subject in the higher SpecCP is also omitted:

87. a. Er_i behauptet er_i heg-s geschter kauft
     he_i claims he_i has-it yesterday bought

     b.* Er_i behauptet $\_j$ heg-s geschter kauft

     c. $\_i$ behauptet er_i heg-s geschter kauft

     d. $\_i$ behauptet $\_i$ heg-s geschter kauft

It is often assumed that only Nominative and Accusative topics can be omitted (cf. Sternefeld 1985). But given the right context even adjunct PPs can be "topic-dropped", viz. if the preceding utterance only contains this PP in addition to a question-marker. The topic is thus narrowed down to this PP:

88. a. Was mit de Schäär?   - _ hät er d Vene wele uufschniide
     what with the scissors?   has he the veins want open-cut

     b. Was isch um die Ziit? - _ wott er en Balloon schtarte laa
     what is at this time   wants he a balloon start let

On the present account we would expect a correlation between elements which can be left-dislocated and ones which can be topic-dropped. This is confirmed for negative quantifiers (cf. (78) above) and sentence adverbs like *wahrschiinli* (cf. (81) above):

89. a. Chauffsch nüt?   - * _ Chauff-i
     buy-you nothing   buy-I

     b. Chömed d Eltere wahrschiinli? - * _ chömed-s
     come the parents probably   _ come-they

2.9. Subject-verb inversion in V2 and V1 complements

The ZH constructions in (90) still await an explanation:

90.   a. I welem Kino meinsch [cp d Chind wänd en Film go luege?]
          in which cinema think you the kids want a film go see

       b. Dää Film glaub-i [cp d Chind händ schomal gsee]
          this film think I the kids have already seen

Note that the embedded subject can remain in the middle field (91), and that a non-subject cannot occur in the lower SpecCP (92):

91.   a. I welem Kino meinsch [cp wänd d Chind en Film go luege?]
          in which cinema think you want the kids a film go see

       b. Dää Film glaub-i [cp händ d Chind schomal gsee]
          this film think I have the kids already seen

92.   a. *I welem Kino meinsch [cp en Film wänd d Chind go luege?]
          in which cinema think you a film want the kids to see

       b. *D Chind glaub i [cp dää Film händ schomal gsee]
          the kids think I this film have already seen

I propose that what is at work here is a surfacy subject-verb inversion process. Such inversion can also be observed with V1-complements. There are a number of predicates, characterised as emotive factive predicates by Penner & Bader (1992:34), that take V1-complements as alternatives to *dass*-clauses, as in (93):

93.   a. Ich ha Glück ghaa hät si mit mir gredt
          I have luck had   has she with me spoken
          "I was lucky that she talked to me"

       b. Ich ha Glück ghaa dass si mit mir gredt hät
          I have luck had that she with me spoken has

    c. Mir sind froh sind ir no rächziitig choo
       we are glad   are you yet in time   come
       "We are glad that you came in time"

    d. Mir sind froh dass ir no rächziitig choo sind
       we are glad that you yet in time come are

In ZH (if not in the dialect of Bern) it is possible to invert subject and finite verb in these V1-complements, hence

94.   a. Ich ha Glück ghaa si hät mit mir gredt
       I have luck had she has with me spoken

    b. Mir sind froh ir sind no rächziitig choo
       we are glad you are yet in time come

If subject-verb inversion is possible in the context of embedded V1 we would predict it to occur in other contexts as well, and the data in (90) fulfills this prediction. It remains to be clarified how inversion applies, given that subject and verb do not form a syntactic constituent on standard accounts (but cf. the remarks at the end of Chapter 2), or whether it takes place at PF, and if so, what exactly the conditions are. Further evidence for surface inversion is provided by the syntax of the ZH verbal complex, which is discussed in the next chapter.

Chapter 5: The verbal complex

1. Introduction

The Germanic verbal complex has been the subject of a vast amount of literature but no consensus has been reached on how it should be analysed. As far as the ZH verbal complex is concerned, the following papers need to be mentioned: Lötscher (1978) was perhaps the first to deal with verb order in ZH. Den Besten & Edmondson (1983) discuss the verbal complex in ZH and a number of other West Germanic languages and dialects. Haegeman & van Riemsdijk (1986) focus on the syntax of the verbal complex in ZH and West Flemish and propose a GB analysis in terms of reanalysis and inversion. Kroch & Santorini (1991) suggest an analysis of the verbal complex in ZH and other West Germanic languages by means of the Tree-Adjoining Grammar (TAG) formalism. Kaplan & Zaenen (1988) present a Lexical-functional Grammar (LFG) analysis of the Dutch and ZH verbal complex. Baker (1988a) proposes an analysis of ZH in which the verbs triggering inversion are treated as second-to-last position clitics. Schoenenberger (1989) deals with the order in the verbal complex in the Swiss dialect of St.Gallen, which is closely related to Zurich German, and Knoll (1992) offers an account of the ZH verbal complex which involves extraposition, verb raising, procliticisation and T-linking. The primary problem with many of these accounts is the selection of the data. It is often assumed that the order of verbs in ZH infinitival complement constructions is the mirror image of the verb order in German and is thus comparable to Dutch (and West Flemish), with higher verbs preceding embedded verbs. As shown in Cooper (1988), ZH not only admits both Dutch and German verb order, it also admits a wide range of further order possibilities. Consider the variation illustrated in (1), which is not exhaustive. For this example involving bare infinitivals, i.e. infinitivals without the marker z, "to", virtually any order is acceptable as long as each object NP precedes its governing verb:

1.   a. dass de Hans sini Chind wil gsee Tennis schpile
         that the H. his kids wants see tennis play
         "that Hans wants to see his kids play tennis"

b. dass de Hans wil sini Chind Tennis schpile gsee
c. dass de Hans sini Chind Tennis schpile wil gsee
d. dass sini Chind de Hans Tennis schpile gsee wil
e. dass de Hans sini Chind gsee wil Tennis schpile
f. dass de Hans sini Chind gsee Tennis schpile wil

The picture becomes more complicated if auxiliary verbs and z-infinitivals are considered, as we will see below. At this point I merely want to convey a flavour of the massive order variation possible in ZH infinitival complements. The full range of data at issue will be presented gradually throughout this chapter. The chapter is organised as follows. Section 2 introduces the terms "verb raising" and "extraposition", section 3 "verb projection raising", which is compared with extraposition in section 4. Section 5 deals with the distinction between coherent and incoherent constructions and employs a number of coherence tests. Section 6 discusses the categorial status of infinitival complements and it is argued that there is no good evidence to posit anything larger than VP. Section 7 raises the question of the subject position of the infinitival complements of the various types of verbs at issue, and proposes PRO in SpecVP. Section 8 introduces the notion of a "verb cluster", which is comparable to a clitic cluster, and discusses a number of diagnostics for verb clusters. The most interesting among these are probably the phenomena of the missing and misplaced infinitival marker z. The categorial status of z is discussed in some detail. Section 9, finally, contains an analysis in terms of structurally conditioned verb clustering followed by inversion at PF, and it looks at the distinction commonly made between infinitivals which are opaque or transparent to movement.

2. Verb Raising and Extraposition

Since Evers (1975) it has been widely accepted that a number of verbs in Continental West Germanic trigger Verb Raising (VR) or Restructuring, i.e. an embedded infinitive is raised and adjoined to the higher verb, with or without accompanying pruning of the embedded structure. Thus, in the German example (2) and the Dutch example (3) the (b) structures are derived from the

base structures (a) by means of VR. In German the raised verb adjoins to the left of the higher verb, in Dutch to the right.

2.   a. weil Cecilia [die Kraniche fliegen] sah
        because C. the cranes fly   saw
        b. weil Cecilia die Kraniche [fliegen sah]

3.   a. omdat Cecilia [de kraanvogels vliegen] zag
        because C.   the cranes   fly   saw
        b. omdat Cecilia de kraanvogels [zag vliegen]

In German, VR is superficially not visible as the verb order does not change, but there are indirect means of testing whether it has applied or not, which are discussed below. In Dutch, VR results in a verb order that is the mirror image of the underlying structure. VR is generally taken to be obligatory with bare infinitival complements, i.e. with the complements of verbs which include the modals, perception verbs and causatives.[1]

In contrast to bare infinitivals, German and Dutch infinitivals bearing the marker *zu* and *te*, "to", respectively, have the option of Extraposition. Given standard assumptions about underlying structure, Extraposition is a process which moves a substructure to a right-peripheral adjunction position.[2] Extraposition structures are given in (4b) and (5b).[3]

4.   a. weil Cecilia [die Kraniche zu filmen] versuchte
        because C. the cranes to film   tried
        b. weil Cecilia versuchte [die Kraniche zu filmen]

5.   a.*omdat Cecilia [de kraanvogels te filmen] probeerde
        because C.   the cranes   to film   tried
        b. omdat Cecilia probeerde [de kraanvogels te filmen]

---

[1] This view is for instance expressed by Evers (1986:171): "The restructuring in German - and in West Germanic generally - applies obligatorily to the infinitival complements of a.c.i.-verbs and the complements of sentence qualifying verbs, such as modals and aspectuals."

[2] Alternative views of both underlying structure and Extraposition will be considered below.

[3] Evers (1975) employs an overt embedded subject pronoun in these examples, and assumes Equi-NP-Deletion. Later analyses make use of an embedded PRO which would here be controlled by the matrix subject. This issue is addressed below.

Whereas in German both surface orders (4a/b) are grammatical, Dutch (5a) is not a grammatical surface order but only forms a derivation basis for (5b).

At least for German, Extraposition is commonly associated with *zu*-infinitives.[4] In ZH, however, virtually all verbs can be said to have the option of Extraposition. The ZH examples in (6) show Extraposition with *z*-infinitivals, which are comparable to the German and Dutch sentences above.

6.   a. dass si probiert [d Vögel z filme]
         that she tries   the birds to film

      b. dass si behauptet [es Buech z schriibe]
         that she claims   a   book to write

      c. dass si verschpricht [en Chueche z bache]
         that she promises   a   cake to bake

      d. dass si jetz schiint [zfride z sii]
         that she now seems   content to be

As in Dutch (cf. (5a) above), the non-extraposed versions of the examples in (6) are ungrammatical, as illustrated in (7), but a variant that has been dubbed the "third construction" in Dutch syntax (cf. den Besten et al 1988) is grammatical (8):

7.   a. *dass si [d Vögel z filme] probiert
         that she the birds to film tried

      b. *dass si [es Buech z schriibe] behauptet
         that she a book to write   claims

      c. *dass si [en Chueche z bache] verschpricht
         that she a cake   to bake   promises

      d. *dass si jetz [zfride z sii] schiint
         that she now content to be seems

8.   a. dass si d Vögel probiert z filme
         that she the birds tries to film

---

[4] Not all *zu*-infinitives can be extraposed, though. Raising verbs like *scheinen*, "seem", typically preclude Extraposition of their complement.

    b. dass si es Buech behauptet z schriibe
       that she a book claims to write

    c. dass si en Chueche verschpricht z bache
       that she a cake   promises to bake

    d. dass si jetz zfride schiint z sii
       that she now content seems to be

(9), finally, illustrates Extraposition of bare infinitivals in ZH, which is impossible in German and Dutch.[5]

9.   a. dass er nöd wil [sini Chind verlüüre]
       that he not wants his kids lose

    b. dass er mich laat [Mediziin schtudiere]
       that he me lets medicine study

    c. dass er mich ghört [en Arie singe]
       that he me hears an aria sing

    d. dass er ois hilft [s Gschirr abwäsche]
       that he us helps the dishes wash-up

Note that in (9b/c/d) the object of the matrix verb has to occur on the left of its governing verb, as government/case marking is to the left, ZH being an SOV language (cf. chapter 3). The examples in (9) all have grammatical counterparts with the complement intraposed, besides a third order possibility, as is shown in (10) for the verb *laa*:

10.   a. dass er mich laat Mediziin schtudiere
         that he me lets medicine study
    b. dass er mich Mediziin schtudiere laat
    c. dass er mich Mediziin laat schtudiere

---

[5] French comes to mind, where restructuring, confined to a.c.i.-complements, is generally an option, i.e. Extraposition is possible with bare infinitivals as in ZH:
    (i) que Marie entend Pierre analyser la sonatine Extraposition
       that M.   hears   P.   analyse the sonatina
    (ii) que Marie entend analyser la sonatine à Pierre   Restructuring
       that M.   hears   analyse the sonatina by P.

To sum up, given a centre-embedding base structure, German can be characterised as allowing all infinitival complements to remain on the left of their governing verbs, intraposed as it were.[6] Bare infinitivals must occur intraposed, whereas *zu*-infinitivals can in most cases also be extraposed. ZH, in contrast, allows Extraposition with both bare and *z*-infinitivals but Intraposition only with bare infinitives. If we treat all infinitival complements alike, whether they are prefixed by *z* or not,[7] the default and base position which suggests itself at first glance would seem to be Extraposition. There is a proposal, though, that what superficially looks like Extraposition in ZH is really just a form of Verb Raising. This is discussed in the next section.

3. Verb Projection Raising

The term "Verb Projection Raising" was introduced by Haegeman & van Riemsdijk (1986) to describe the syntactic behaviour of certain infinitival complements in ZH and West Flemish. Their analysis is described in some detail in Cooper (1988). Apart from theoretical problems which I will not further discuss here (cf. Haegeman 1992), their approach fails to take the entire ZH order variation into account and only deals with the tip of the iceberg. For example, (11) is taken to be the underlying structure of the four grammatical outputs in (12) which are derived by means of reanalysis in the syntax followed by inversion at PF:

11. dass er [[en Arie singe] chöne] wele hät
     that he   an aria sing   can want has
     "that he wanted to be able to sing an aria"

12. a. dass er en Arie hät wele chöne singe
     b. dass er hät en Arie wele chöne singe
     c. dass er hät wele en Arie chöne singe
     d. dass er hät wele chöne en Arie singe

---

[6] The term "Intraposition" leaves open whether we are dealing with the base structure or a derivation which leaves the linear order unaffected.

[7] The fact that some verbs are compatible with both types of infinitive strongly suggests that *z*- and bare infinitivals should be treated alike, e.g.

(i) dass er ois ghulfe hät abwäsche   (ii) dass er ois ghulfe hät d Gläser abzwäsche
    that he us ·helped has wash-up   that he us helped has the glasses to wash-up

The relative order of verbs remains constant in (12) and is the mirror image order of (11). Haegeman & van Riemsdijk take (11) to be an ungrammatical surface order, although it is acceptable, and should be so on their account, since reanalysis is optional. By modifying their analysis and making inversion optional, it is possible to derive further orders they have not considered, although this results in overgeneration. Some orders, such as the ones in (13), cannot be derived at all in their system (cf. Cooper (1988: 16ff) for details):

13.   a. dass er en Arie wele hät chöne singe
       b. dass er en Arie wele hät singe chöne

The notion Verb Projection Raising (VPR) is employed purely descriptively by Haegeman & van Riemsdijk, in analogy to Verb Raising (VR) in German and Dutch. Whereas in VR one verb is raised and adjoined to a higher verb, in ZH and West Flemish VPR an entire verb projection is raised rightwards and adjoined. In their analysis, however, VR is derived by reanalysing the structure involving two adjacent verbs if one of them is a restructuring verb, while VPR is derived by reanalysing a restructuring verb and an adjacent verb projection (VP). Restructuring verbs are marked as such in the lexicon.

Haegeman (1992) adopts an analysis of West Flemish VPR in which the term VPR describes the way the analysis works, i.e. a verb projection is actually raised rightwards and adjoined to a higher verb.[8] By scrambling elements out of the VP before raising it, a variety of order possibilities can be derived. One might expect that VR is analysed along the same lines, viz. by scrambling everything but the verb out of a VP and raising the remnant VP, but Haegeman instead adopts Baker's (1988b) Incorporation Theory and argues that VR is better treated as a case of head-to-head adjunction. Given that West Flemish displays a much narrower word order variation in infinitival complements than ZH[9], Haegeman's analysis is not directly relevant to our concerns. Conceptually, though, it would be preferable to have an analysis which derives

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[8] Haegeman's analysis is developed on the basis of work by den Besten & Webelhuth (1987) and comparable to work by von Stechow & Sternefeld (1988) and van den Wyngaerd (1989).
[9] Haegeman & van Riemsdijk (1986) wrongly assumed that WF and ZH have the same order possibilities. My criticism of their account is of course confined to the ZH data.

both VR and VPR by the same means, as was the case in the earlier proposal by Haegeman & van Riemsdijk (1986).

Central to any analysis of the ZH data is the question whether a distinction between Extraposition and VPR has to be made, as both Haegeman & van Riemsdijk (1986) and Haegeman (1992) take such a distinction to be fundamental. The next section looks at their arguments and evaluates the evidence with respect to ZH.

4. Verb Projection Raising versus Extraposition?

Haegeman & van Riemsdijk (1986) give three arguments against accounting for the ZH VPR data by means of an Extraposition rule. First, they show that the verb projection may be split up within the verb cluster. This is illustrated in (12) above, and it is argued that an Extraposition rule would only predict (12d), leaving (12a/b/c) unexplained. As we have seen, though, there is considerably more data to be taken into account. Even Extraposition **and** VPR are not sufficient to cover the range of variation. A different analysis is therefore required.

Secondly, Haegeman & van Riemsdijk note that the subject of a complement to a causative or perception verb must not follow this verb. Their analysis derives the sentences in (15) from an underlying structure (14):[10]

14.　dass er sini Chind Mediziin schtudiere laa wil
　　　that he his kids medicine study let wants
　　　"that he wants to let his kids study medicine"

15.　a. dass er sini Chind Mediziin wil la schtudiere
　　　b. dass er sini Chind wil Mediziin la schtudiere
　　　c. dass er sini Chind wil la Mediziin schtudiere
　　　d. dass er wil sini Chind Mediziin la schtudiere
　　　e. dass er wil sini Chind la Mediziin schtudiere
　　　f.*dass er wil la sini Chind Mediziin schtudiere

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[10] Note that in their paper (14) (their (36)) is marked as ungrammatical. As pointed out already, this order of verbs is perfectly grammatical with bare infinitives.

Importantly, for Haegeman & van Riemsdijk, (15f) cannot be derived under Reanalysis. Their reason for this is that in their structure *sini Chind* and the VP *Mediziin schtudiere* are together dominated by an S node, which is not a projection of V, hence *sini Chind* is not accessible to Reanalysis. However, if we consider further data such as (16), their argument cannot be upheld:

16. a. dass er Mediziin wil sini Chind schtudiere laa
     b. dass er Mediziin schtudiere wil sini Chind laa

As (16) shows, the reordering of verb projection elements can extend beyond the position filled by *sini Chind*. It is therefore not clear that we are dealing with verb projection raising rather than with a form of "sentence raising". Moreover, the data are not as clear as made out in (15). Precisely with the verb *laa*, but also with perception verbs, the ECM subject can actually follow the ECM verb (cf. 7.2. below):

17. a. dass er villicht wil la sini Chind Mediziin schtudiere
        that he perhaps wants let his kids medicine study

     b. dass er äntli mal gsee hät sin Sohn Fuessball schpile
        that he at last   seen has his son   football   play

The third and most interesting argument adduced by Haegeman & van Riemsdijk in favour of a VPR analysis involves *was-für*-extraction. Their claim is that this type of extraction is only possible out of complements of V(P)R verbs, and not out of complements of Extraposition verbs. Recall that they assume a lexical distinction between verbs undergoing V(P)R and others whose complements extrapose. According to my intuitions, though, *was-für*-extraction is grammatical with alleged V(P)R as well as Extraposition verbs, and even out of finite complements:

18. a. Was$_i$ wil er t$_i$ für Büecher läse?
        what wants he for books read
        "What kind of books does he want to read?"

     b. Was$_i$ behauptet er t$_i$ für Büecher z läse?
        what claims he   for books to read
        "What kind of books does he claim to read?"

c. Was₁ behauptet er, dass er t₁ für Büecher list?
what does he claim that he   for books reads
"What kind of books did he claim that he reads?"

In the face of these data we have to conclude that *was-für*-extraction is either not a relevant test, or else the distinction between V(P)R verbs and non-V(P)R verbs is not motivated. The next section looks at further tests which have been devised to establish whether some kind of restructuring has taken place.

5. Coherent versus incoherent constructions

At the beginning of this chapter it was noted with respect to German (2), that VR may take place without being superficially visible, as it need not affect the word order. Consider the German examples in (19):

19.   a. weil Cecilia [die Kraniche zu filmen] versuchte
          because C. the   cranes to film   tried
       b. weil Cecilia die Kraniche [zu filmen versuchte]

       c. weil Cecilia versuchte [die Kraniche zu filmen]

This section considers some of the tests which have been proposed to decide whether we are dealing with a structure like (19a) or (19b). To avoid the notions Verb Raising and Restructuring, which go beyond a simple description of the data by suggesting how such structures ought to be analysed, I take recourse to an older and theory-neutral terminology. In his classic study of German infinitives, Bech (1955) introduced the distinction between "coherent" and "incoherent" constructions, which in a slightly modified version has become widely used among German syntacticians. While Bech himself called only those constructions incoherent in which an infinitival complement is extraposed, like (19c), it is now customary to use the term for any structure where the complement as such remains a constituent, like (19a) and (19c). If the two verbs form a constituent, as in (19b), the construction is coherent. This section concentrates on a number of tests for coherence which

are independent of the categorial status of the complement, an issue which will be addressed in section 6. Coherence tests are listed in (20):

20. Coherence Tests
   a. The verb cluster can be moved (fronted)
   b. The embedded complement cannot be moved (extraposed, fronted)
   c. Non-verbal material cannot be inserted between the verbs
   d. The scope of a scope element includes all verbs

In the following, a number of different ZH verbs selecting infinitival complements are considered with respect to these tests.

5.1. Verbs embedding bare infinitivals

We start with verbs embedding bare infinitivals, viz. modals, perception verbs and the causative *laa* "let". The corresponding verbs in German are generally taken to trigger obligatorily coherent constructions. We have already seen above that these ZH verbs, unlike their German counterparts, allow their complements to be extraposed, an indication of incoherence (cf. 20b). In (21) it is shown that extraposition as well as fronting of the complement are possible in the case of a modal like *wele* "want".

21.　　a. dass de Peter ja [en Arie singe] wele hät
　　　　　　 that the P.　part an aria sing wanted has
　　　　　　 "that Peter has wanted to sing an aria"
　　　 b. dass de Peter ja hät wele [en Arie singe]
　　　 c. [En Arie singe] hät de Peter ja wele
　　　　　　 an aria sing　 has the P.　part wanted

With respect to the coherence test (20b), we see in (22) that the two non-finite verbs can be fronted together, suggesting that they can form a constituent (see chapter 2 where fronting was first used as a constituent test).

22.　　a. dass de Peter en Arie [singe wele] hät
　　　　　　 that the P.　 an aria　sing wanted has
　　　 b. [Singe wele] hät de Peter en Arie
　　　　　　 sing wanted has the P.　an aria

As for the third test - whether any non-verbal material can be inserted between the verbs (20c) - consider the data in (23), giving the possible placements of a locative PP, *am Fescht*. That no insertion is possible between the two infinitives suggests that they form a constituent.

23. a. dass de Peter am Fescht en Arie singe wele hät
         that the P.   at the party an aria sing wanted has
      b. dass am Fescht de Peter en Arie singe wele hät
      c. dass de Peter en Arie singe wele hät am Fescht
      d.*dass de Peter en Arie singe am Fescht wele hät

Note that the insertion of verbal material - which I take to mean material belonging to the verb in the widest sense - is grammatical, if somewhat unusual. Hence focus particles, modal particles and negation with narrow scope over the following verb can be inserted. Presumably these elements are adjoined to the verb to the right (this is something we would expect in all configurations, though for some reason it is not possible before the auxiliary *hät* - probably for semantic reasons, as it simply does not make sense to modify the auxiliary in most cases):

24.   a. dass de Peter en Arie singe sogar wele hät
          that the P.   an aria sing even wanted has
          "that Peter even wanted to sing an aria"

      b. dass de Peter en Arie singe ja. wele hät
          that the P.   an aria sing PART wanted has
          "that Peter wanted to sing an aria, though"

      c. dass de Peter en Arie singe nöd wele hät
          that the P.   an aria sing not wanted has
          "that Peter did not want to sing an aria" (but had to - contrastive)

This kind of insertion must be kept apart from the insertion of elements taking wider scope, which cannot occur in between two verbs, e.g.

25.   a. *dass de Peter singe nüt törf
          that the P.   sing nothing may

This brings us to the fourth test which involves scope elements. If the construction is coherent, we expect a scope element in front of the two verbs to take scope over both verbs, giving rise to two readings. This is in fact what happens with modals and *laa*:

26.   dass de Patient nüt ässe törf
       that the patient nothing eat may
       i. "that the patient may eat nothing"
       ii. "that the patient must not eat anything"

27.   dass d Muetter d Chind kei Fleisch ässe laat
       that the mother the kids no meat   eat lets
       i. "that the mother allows the kids to eat no meat"
       ii. "that the mother doesn't let the kids eat any meat"

The results of the four tests applied to verbs taking bare infinitival complements are summed up in (28):

28.   suggests the construction is
       coherent   incoherent
a.   YES   verb cluster moves
b.   YES   complement moves
c.   YES   insertion of lexical material
d.   YES   scope

Table (28) suggests that either the verbs at issue engage both in coherent and incoherent constructions or else test (b) provides no valid criterion for incoherence.

5.2. Verbs embedding *z*-infinitivals

Next we consider the behaviour of verbs embedding *z*-infinitivals, viz. raising and control verbs, with respect to the coherence tests. The first of the four coherence tests involves movement of the matrix and embedded verb together,

as a verb cluster, and yields the following result when applied to a raising verb
and a control verb:[11]

29.   a. dass s Baby [uufzwache troht] hät   base structure
          that the baby to wake up threatened has
          "that the baby threatened to wake up"
       b. [uufzwache troht] hät s Baby
            to wake up threatened has the baby

30.   a. dass s Baby [uufzschtaa probiert] hät   base structure
          that the baby to stand up tried   has
          "that the baby tried to stand up"
       b. [uufzschtaa probiert] hät s Baby

(29) and (30) show that the two verbs form a constituent together which can be
fronted. Note that (29a) and (30a) are not grammatical surface structures, and
are only given here as the assumed base structures. The second coherence test
involves movement of the complement:

31.   a. dass s Baby troht hät [uufzwache]
          that the baby threatened has to wake up
       b. Uufzwache hät s Baby troht

32.   a. dass s Baby probiert hät [uufzschtaa]
          that the baby tried   has to stand up
       b. Uufzschtaa hät s Baby probiert

Not only can the complements be extraposed, as was already illustrated above
(6), but they can also be fronted on their own. The third test involving
insertion of lexical material between the two verbs at issue cannot be applied
because the sequence *uufzwache troht/probiert* is not grammatical in ZH (cf.
29a/30a). The fourth test, concerned with scope, is not applicable either, given
the standard assumptions on base structure, as the base structure itself is not a

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[11] Since *schiine*, "seem", is not suited to these tests as it cannot easily be used in non-finite
form, *drohe* is used throughout. Note incidentally that there is a strong tendency in ZH to use
an adverbial *schiints*, "it seems", instead of a raising verb construction, e.g.
(i) De Peter isch schiints chrank
    he Peter is seems-it ill

grammatical string (this probably also accounts for the fact that (29b)/(30b) are somewhat odd). The results of the two applicable tests are given in (33):

33.   suggests the construction is
           coherent   incoherent
a.   YES
b.   YES

It is obvious from the results in (28) and (33) that these tests provide no valid criteria. Since the tests as such appear to be sound and have been shown to be useful for German, it is reasonable to question the underlying assumptions rather than the tests themselves. In particular, I will assume that a centre-embedded base structure is not indicated for ZH. Instead, something like (34) is required:

34.   dass [s Baby [hät [troht [xp uufzwache]]]]
       that the baby has threatened to wake up

Before turning to the derivation of the various word orders from such an underlying structure, an investigation of the properties of XP is in order. The categorial status of infinitival complements is the subject of the next section.

6. The categorial status of infinitival complements

This section addresses the question what syntactic category is to be assigned to infinitival complements. First we look at scrambling as a clause test (6.1.), then at coordination (6.2.), subcategorisation (6.3.) and COMP in infinitivals (6.4.).

6.1 Scrambling

It is widely recognised that scrambling in German is confined by clause boundaries, and there is no reason to assume otherwise for ZH. This provides us with a simple test with respect to the categorial status of infinitivals. If

scrambling out of an infinitival complement is allowed, it cannot be a clause. In the examples in (35), the ungrammaticality of scrambling out of finite clauses is illustrated once more.

35. a.*dass de Vatter [sini Chind]$_i$ wott [$_{CP}$ dass t$_i$ bim Tschuute mitmached]
 that the father his children wants that at football play take part
 "that the father [his children]$_i$ wants that t$_i$ take part in playing football

 b.*dass de Hans [Mediziin]$_i$ zuelaat, [$_{CP}$ dass sin Sohn t$_i$ schtudiert]
 that the H. medicine admits that his son studies
 "that Hans [medicine]$_i$ admits that his son t$_i$ studies"

 c.*dass d Chind [de Hund]$_i$ probiered, [$_{CP}$ dass t$_i$ in Garte chunnt]
 that the children the dog try that into the garden comes
 "that the children [the dog]$_i$ try that t$_i$ comes into the garden"

d.*wil d Muetter [en Chueche]$_i$ em P. verschproche hät, [$_{CP}$ dass si t$_i$ bacht]
 because the mother a cake to P. promised has that she bakes
 *"because mother (a cake]$_i$ promised to Peter that she t$_i$ would bake"

 e.*dass d C. [au Dokumentarfilm]$_i$ behauptet, [$_{CP}$ dass si t$_i$ gmacht hät]
 that the C. also documentary films claims that she made has
 *"that C. [also documentary films]$_i$ claims that she t$_i$ has made"

In the examples in (36), scrambling of an argument NP out of an infinitival complement is illustrated for various matrix verbs selecting bare and z-infinitivals. Movement may be to either the position before or after the matrix subject, though only the latter possibility is given here:

36. a. dass de Vatter [sine Chind]$_i$ wott [$_{XP}$ t$_i$ bim Tschuute zueluege]
 that the father his children wants at football play watch
 "that the father wants to watch his children play football"

 b. dass de Hans [Mediziin]$_i$ sin Sohn laat [$_{XP}$ t$_i$ schtudiere]
 that the H. medicine his son lets study
 "that Hans lets his son study medicine"

 c. dass d Chind [de Hund]$_i$ probiered [$_{XP}$ t$_i$ in Garte z locke]
 that the children the dog try into the garden to call
 "that the children try to call the dog into the garden"

      d. wil d Muetter [en Chueche]$_i$ em P. verschproche hät [$_{XP}$ t$_i$ z bache]
         because the mother a cake the P. promised has   to bake
         "because mother promised P. to bake a cake"

      e. dass d Cecilia [au Dokumentarfilm]$_i$ behauptet [$_{XP}$ t$_i$ gmacht z haa]
         that the C. also documentary films claims   made to have
         "that Cecilia claims to have made documentary films too"

Comparing the data in (35) and (36) leads to the conclusion that the category XP in (36) cannot be a clause.[12]

6.2 Coordination

An argument for the CP-status of English infinitivals comes from Koster & May (1982) and is discussed by Sabel (1993) with respect to German. This argument is based on the idea that generally only constituents of the same category can be coordinated. It is argued that infinitivals can coordinate with (finite) CPs but not with VPs, suggesting that they must be of the category CP.

37.   a.D Maria behauptet [$_{XP}$en Hit z schriibe] und [$_{CP}$dass si berüemt isch]
        the M.   claims   a bestseller to write   and that she famous is
        "Maria claims to be writing a bestseller and that she is famous."

    b.*D Maria behauptet [$_{CP}$dass si berüemt isch] und [$_{XP}$en Hit z schriibe]

38.   a. De Peter verschpricht [meh Schport z triibe] und [dass er faschted]
       the P. promises   more sports to do and that he fasts
       "Peter promises to do more sports and that he will fast"

    b.*De Peter verschpricht [dass er faschted] und [meh Schport z triibe]

As (37a) shows, coordination of an infinitival complement and a finite complement clause is indeed possible, but it is remarkable that the sentence is ungrammatical if the finite clause precedes the infinitival conjunct (37b). The pair in (38) illustrates the same point with another matrix verb. This indicates

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[12] That the contrast between (35) and (36) cannot be derived from a difference in escape positions is obvious, as wh-movement is possible across *dass*, presumably through SpecCP (cf. Chapter 4).

at the very least that the infinitival is more closely related to its embedding verb than the finite complement is.

A German example of an ungrammatical coordination of infinitive and VP is given in (39) (Sabel 1993:7):

39. * H. glaubt [$_{XP}$die richtige Partei zu wählen] und [$_{VP}$ die Wahl gewinnt]
     H. believes the   right party to elect   and   the election wins

It is not surprising, though, that (39) is ungrammatical, since subcategorisation requirements are violated here: the verb *glauben* does not select a finite VP, in fact, no verbs can be said to select a finite VP. This is in fact all we can conclude from (39).

It can be concluded that the coordination test does not tell us very much about the categorial status of infinitivals. Moreover, if bare infinitives are coordinated with *z*-infinitives, as can be done with a matrix verb that allows both types of complement, it turns out that this kind of coordination is perfectly well-formed (cf. 40). If the coordination test yields reliable results, one conclusion to be drawn from it is that bare infinitivals and *z*-infinitivals are of the same category.

40.   Er verschpricht z hälfe [jäte] und [d Beet umzschtäche]
       he promises   to help   weed and the flowerbeds to turn over

6.3 Subcategorisation

A conceptual argument that is often quoted in favour of the CP-status of infinitivals concerns the subcategorisation properties of the embedding verb (cf. Koster & May 1982, Sabel 1993). Given that infinitival complements often occur in the same context as finite clauses, as shown in (41), it is more economical to furnish the lexical entry of the matrix verb with the specification "subcategorises for a CP" to cover both cases:

41.   a. De Hans verschpricht [dass er poschtet]
        the H.   promises   that he shops

        b. De Hans verschpricht [z poschte]
        the H.   promises   to shop[

Since the verb *verschpräche*, "promise", also selects other complements such as NPs, there is no a priori reason why it should not also select a VP. Moreover, most verbs selecting finite clausal complements do not subcategorise for infinitivals - cf. (42) - and several verbs selecting infinitivals, such as the modals, are not compatible with finite complements (43). A distinction between CP[finite] and CP[inf] complements would be inevitable and not more economical than one between CP[finite] and VP[inf]. In fact, if we take all infinitival complements of verbs to be VP and finite complements CP, the features in square brackets are not even necessary, since only VP complements of complementisers can be finite.

42.   a. De Hans säit [dass er chunnt]
          the H. says that he comes
        b.*De Hans säit [z choo]
          the H. says to come

43.   a.*D Chind törfed [dass si chömed]
          the children may that they come
        b. D Chind törfed [choo]
          the children may come

6.4 COMP in infinitivals

English infinitivals can be introduced by a complementiser (44a) or a wh-element (44b/c) whereas ZH *z*-infinitivals cannot occur in such contexts, nor can *zu*-infinitives in German (45) (cf. Tappe 1984).

44.   a. I would prefer for you to stay at home
        b. I don't know whether to stay or leave
        c. She doesn't know when to leave

45.   a.*Ich zieh für dich vor dihei z bliibe
       I prefer for you   at home to stay

       b.*Ich weiss nöd öb z bliibe oder z gaa
       I know not whether to stay or to go

       c.*Si weiss nöd wänn z gaa
       she knows not when to go

This contrast strongly suggests that English infinitivals display a differerent structure. A COMP-projection in these contexts is well motivated for English (with the complementiser *for* occupying COMP, and the wh-elements in SpecCP) but not for ZH. Moreover, given a COMP position in ZH infinitivals we would predict that infinitival relative clauses are as in English possible, which is contrary to fact:

46.   a. Peter needs someone to fix the computer

       b.*De Peter bruucht öpper de Computer z repariere

There are wh-infinitivals in ZH, as in German (cf. Tappe 1984), which might suggest that a COMP position can be argued for, but these are constructions restricted to the matrix verb *wüsse*, "know", and bare infinitivals:[13]

47.   a. Ich weiss nöd was choche
       I know not what cook
       "I don't know what to cook"

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[13] Reis (1985:307) notes that in German these constructions are confined to the matrix verbs *fragen*, "ask", and *wissen*, "know". She recommends that the *fragen*-wh-inf-constructions are analysed as root structures, given constructions like (i)
(i) Wem noch trauen?
    who still trust
    "Who can one still trust"?
whereas the *wissen*-wh-inf-constructions are to be regarded as quasi-idioms of a highly limited, analogical productivity. She further notes that *wissen* is the only verb which admits wh-sentence fragments as complements, as in German (ii)
(i) Er wusste nicht wohin mit dem Geld
    he knew   not where to with the money
    "He didn't know where to put the money/how to spend the money"

b. Weiss er wie s Gäld inveschtiere?
knows he how the money invest
"Does he know how to invest the money?"

We conclude that ZH infinitival complements are not to be analysed as CPs. Given the clause structure in (48) which has been argued for in chapter 2, they can only be VPs. Since the subject is generated in SpecVP, the next question to be dealt with is whether these infinitival VPs have a subject, either lexical or empty.

48.   CP
      /\
   Spec   C'
          /\
         C   VP
             /\
           ..   VP
                /\
              ..   V
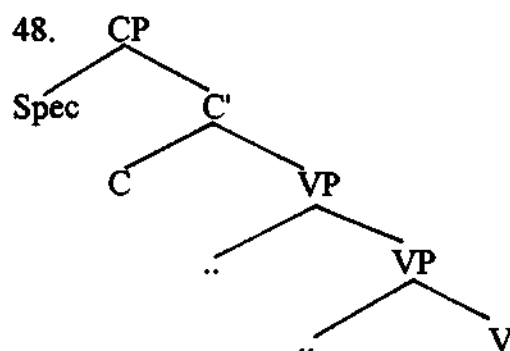
7. On raising and control

A common reaction to analysing all infinitival complements as VPs has often been the objection that at least some infinitivals require subjects. The structure (48) presents no problem, since it is assumed in this thesis that the subject is generated in VP anyway (cf. Chapter 2). It remains to be determined whether empty subjects (trace, PRO) are required, and how they are licensed. This section considers the different types of verbs embedding infinitivals and looks at their structure.

7.1. Raising verbs and modal verbs

Standardly, verbs like schiine, "seem" and drohe "threaten" are analysed as having an embedded base structure subject which moves to the matrix subject position in order to get Nominative case. The motivation for such a derivation

comes from the fact that the surface subject is not the logical subject of the verb *schiine*, but rather of the embedded verb, as can be seen in the parallel construction involving a finite complement:[14]

49.   a. Es schiint, dass de Peter chrank isch
          it seems   that the   Peter   ill   is
          "It seems that Peter is ill"

       b. De Peter_i schiint [t_i chrank z sii]
          the Peter seems   ill   to be
          "Peter seems to be ill"

ZH modal verbs are listed in (50):

50.   wele   "want"
       chöne   "can"
       törfe   "may"
       müese   "must"
       söle   "should"
       möchte   "would like"
       bruuche   "need"

With the exception of *bruuche*, which selects a *z*-infinitive, these modals all embed bare infinitival complements. The modals *wele* and *möchte*[15] can furthermore appear with a finite complement, in which case an agentive embedded subject cannot normally be coreferential with the matrix subject (cf.Rosengren 1992, quoting Öhlschläger 1989, for German). In complementary fashion, in the infinitival construction the understood

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[14] This type of derivation is somewhat less motivated for the verb *drohe*, "threaten", as there is no parallel construction with a finite complement:
(i) a. *Es droht, dass s Wätter sich verschlächtered
          it threatens that the weather REFL deteriorates
    b. S Wätter droht sich z verschlächtere
          the weather threatens to deteriorate

[15] The form *möchte* is an artificial infinitive as this verb does only occur in finite form, and does not have a participle either.

embedded subject is coreferential with the matrix subject, as with all other modal verbs, and this implicit subject can easily be agentive (51b)[16]:

51.   a. De Peter$_i$ will/möcht, dass er*$_{i/j}$ i d Ferie gaat
         the Peter$_i$ wants/would like that he*$_{i/j}$ on holiday goes
         "Peter$_i$ wants/would like him$_j$ to go on holiday"

      b. De Peter will/möcht i d Ferie gaa
         the Peter wants/would like on holiday go
         "Peter wants/would like to go on holiday"

      c. De Peter$_i$ will/möcht, dass er$_i$ im Schpital bsuecht wird
         the Peter wants/would like that he in hospital visited is
         "Peter wants/would like to be visited in hospital"

A distinction commonly made for certain modal verbs is the one between a root and an epistemic interpretation. The modal *chöne* in particular displays a clear difference between a root and an epistemic reading:[17]

52.   Ich glaub dass vill Lüüt chönd a das Konzert choo
      I   think that many people can to this concert come
      (i) "I think that many people are able to come to this concert"
      (ii) "I think that it is possible that many people come to this concert"

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[16] Rosengren (1992:280) derives the difference between these two construction types from the fact that an embedded CP displays a situation variable which is referentially bound. If a CP is embedded, the superordinate subject wishes the existence of a particular situation. Since one cannot wish that one brings about the existence of a situation there is no reason to assume that the embedded infinitive is a CP. This argumentation does not sound entirely plausible to me, though.

[17] Schoenenberger (1989:15f) makes the following distinction for the Swiss German dialect of St.Gallen: in (i) only the root reading of the modal is available, whereas in (ii) both readings are possible, depending on stress; if the embedded verb is emphasised, the modal has the epistemic reading, if the modal is emphasised it has the root meaning:
(i) das d Criseyde flörte cha
    that the Criseyde flirt   can
    "that Criseyde knows the art of flirting"
(ii) das d Criseyde cha flörte
    that   Criseyde can flirt
    "that it is possible that Criseyde flirts" or as for (i)
I agree with Schoenenberger that stress on the modal is only compatible with the root reading, but apart from this I do not agree with her judgments, as I can easily get both readings for both (i) and (ii).

Haegeman (1992:117f.) assumes that the dual interpretation of the modal in West Flemish (53a), which is parallel to ZH (52), is an effect of scope ambiguity: if the subject takes scope over the modal we get the root reading, and if the modal takes scope over the subject we get the epistemic reading. In WF (53a) both possibilities are given, whereas in WF (53b) only the epistemic reading is available:

53.   a.dan-der vee mensen keunen kommen
          that-there many people can   come
          (i) "that many people are able to come"
          (ii) "that it is possible that many people come"

       b. dan-der keunen vee mensen kommen
          that-there can   many people come
          "that it is possible that many people come"

Haegeman notes that elements which are affected by VPR must not take scope outside the verb cluster. In (53a), VPR has affected the subject *vee mensen* which can therefore not take scope over the modal. Without going into the details of her VPR analysis (cf. section 3 above) I will argue that the scope facts can be derived by employing raising and control structures since the root and the epistemic reading can be correlated with a control and a subject raising structure respectively (cf. Stechow & Sternefeld 1988:429). Word order seems to present an obstacle at first sight, though, as a comparison between German (54) and ZH (55) shows:

54.   a. dass da viele Leute [PRO kommen] können
          that there many people   come   can
          "that many people are able to come"

       b. dass da viele Leute$_i$ [t$_i$ kommen] können
          "that it is possible that many people come"

55.   a. dass da vill Lüüt chönd [PRO choo]
          that there many people can   come
          "that many people are able to come"

    b. dass da vill Lüüt$_i$ chönd [t$_i$ choo]
       that there many people can come
       "that it is possible that many people come"

In German (54) the finite verb is right-peripheral and it is structurally straightforward to place it either inside or outside the embedded structure. In the ZH examples (55) though the finite verb is in medial position. If we assume for ZH that the underlying structure must correspond to German (54) the derivation of clauses like (55) becomes problematic, unless we posit a left-peripheral functional head, for which there is no further evidence. It seems plausible, then, to overthrow these underlying "German" assumptions and start from a different base structure.[18] An analysis along these lines will be spelled out in section 9.

Consider now the ZH equivalents of West Flemish (53a) and (53b):

56.   a. dass da vill Lüüt chönd choo
       that there many people can come
    (i) "that many people are able to come"
    (ii) "that it is possible that many people come"

     b. dass da chönd vill Lüüt choo
       that there can many people come
       "that it is possible that many people come"

57.   a. control: dass da vill Lüüt$_i$ chönd [PRO$_i$ choo] =(56a (i))
     b. raising: (i) dass da vill Lüüt$_i$ chönd [t$_i$ choo] =(56a(ii))
          (ii) dass da e$_i$ chönd [vill Lüüt$_i$ choo] =(56b)

I propose that (56a) can receive either reading because it is ambiguous between a control and a raising structure, whereas (56b) is a raising structure in which the subject remains in the lower subject position (SpecVP). The three possibilities are given in (57). Note that the coindexing in (57) does not imply movement. Two different modes of case assignment are required. In the one case, the subject receives Nominative from the modal verb in the higher

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[18] Of course, ZH also admits the "German" centre-embedded order, viz.
(i) dass da vill Lüüt choo chönd
and this may suggest that the order with the two verbs inverted should be derived from (i).
Recall, however, that this "German" order is only possible with bare infinitivals, and not with z infinitivals.

subject position, as in (a). In the other case, Nominative is assigned to the upper subject position (possibly to an empty element) and percolates down to the lower subject position.[19] As we will see below, these two possibilities are required in other constructions, too, and thus receive independent motivation. The idea that modal verbs like *chöne* "can" are associated with two different structures suggests that there are two lexical entries projecting two different structures. The data in (58) shows that other verbs do not display subject-verb inversion in embedded context, which supports the idea that this phenomenon is due to lexical specification:

58.   a.*dass da probiered vill Lüüt z choo
          that there try   many people to come

        b.*dass dänn lönd vill Lüüt s Auto schtaa
          that then let many people the car stand

        c.*wil dänn händ vill Lüüt aaglüüte
          because then have many people phoned

Subject-verb inversion is, however, possible with raising verbs like *schiine*, which lends further support to this analysis:

59.   a. wil hüt doch en Huuffe Lüüt schiined dihei z bliibe
           because today PART a heap people seem at home to stay
           "because today a lot of people seem to stay at home"

        b. wil hüt doch schiined en Huuffe Lüüt dihei z bliibe
           "ditto"

As for the modal verbs, it is predicted that only epistemic modals can display subject-verb inversion, since the epistemic reading implies that the verb takes scope over the subject However, this phenomenon is also observed with root modals, which at first sight seems to cast doubt on the proposed analysis:

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[19] Cf. den Besten (1985) who suggested that in the context of passive and ergative verbs, Nominative is assigned to the subject in SpecIP and percolates down into the VP.

60.   dass hüt doch wott de Peter de Garte jäte
       that today PART wants the P. the garden weed
       "that today Peter wants to weed the garden, though"

There is no sense in which the verb *wele* "want" could receive an epistemic reading and I propose that this is the clue as to why (60) is grammatical. It is formed by analogy to constructions like (56b), and this is possible precisely because the distinction between root and epistemic does not arise for lexical reasons, and therefore does not need to be made in the syntax.[20] This assumption becomes more plausible if we posit one lexical entry associated with two possible structures for verbs like *chöne*, "can", rather than two separate lexical entries. The possibility of projecting a control or a raising structure may then be overgeneralised to verbs like *wele*, "want".

The discussion so far has implied the existence of empty subjects in the infinitival complements of modals and raising verbs, viz. PRO and trace, depending on whether a control or a raising analysis is assumed. The question whether these elements - particularly PRO - are really necessary will be addressed after discussing further types of verbs embedding infinitivals.

7.2. Perception verbs and *laa*

The ZH perception verbs *gsee* "see", *ghöre* "hear", and *gschpüüre* "feel" all select finite complements as alternatives to infinitivals, whereas *laa* "let", only occurs with infinitivals:

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[20] Geilfuss (1992) deals with ZH data like (i) which he takes to be related to German (ii).
(i) wänn mich will de Verträtter bsueche törfe
    when me wants the representative visit may
    "if the representative wants to be allowed to visit me"
(ii) wenn ihm hätte der Wind den Hut vom Kopf reissen können
     when him had the wind the hat from the head tear can
     "if the wind could have torn him the hat off his head"
However, I don't think that these constructions are related. The German type (ii) is restricted to double infinitive constructions and inversion is only possible with the auxiliaries *haben* "have", and *sein*, "be". The same can be observed in ZH, whereas the construction (i) which does not need to have two infinitives is restricted to modals and raising verbs, and is ungrammatical with auxiliaries (cf. 58c).

61. a. Ich gsee dass d Chind Fuessball schpiled
    I see that the kids football play

    b. Ich gsee wie d Chind Fuessball schpiled
    I see how the kids football play

    c. Ich gsee d Chind Fuessball schpile
    I see the kids football play

62. a.*Ich laa dass d Chind Fuessball schpiled
    I let that the kids football play

    b. Ich laa d Chind Fuessball schpile
    I let the kids football play

The verb *laa* is ambiguous between a causative and a permissive reading, so that (62b) could mean either that I make the children play football or that I don't stop them from playing football. These two meanings are expressed most adequately by the German pair *veranlassen* (causative) and *zulassen* (permissive).[21] ZH employs *zuelaa* "admit, allow", but has no separate *laa*-lexeme for the causative meaning.[22]

In embedded and non-finite contexts, object NPs normally occur on the left of their governing verb, but in the case of AcI (Accusativus cum Infinitivo)-constructions this rule is relaxed in ZH, in stark contrast to German where (63d) and (64b) would be ungrammatical:[23,24]

63. a. dass er sicher wott d Buebe gsee
    that he surely wants the boys see

---

[21] Unlike *lassen*, these verbs can embed finite complements, as German (i) and (ii) illustrate:
(i) Ich lasse zu dass die Kinder Fussball spielen
    I allow that the children football play
(ii) Ich veranlasse dass die Kinder Fussball spielen
    I bring about that the children football play
[22] The slightly dialectised German verb *veraalasse* is occasionally heard, but it is (still) foreign to the dialect and does not inflect easily.
[23] I disagree with Lötscher (1978), who assumes that in the ZH verbal.complex an argument may never follow the verb of which it is an argument.
[24] In the Upper Alemannic Swiss dialect of Bosco Gurin sentences corresponding to (63d) and (64b) are fully grammatical if the embedding verb is *laa* "let", causative *tüa (tian)* "make", a perception verb or one of the other verbs taking both a nominal object and a dependent infinitive, as shown by Comrie & Frauenfelder (1992).

      b.*dass er sicher wott gsee d Buebe
        that he surely wants see the boys

      c. dass er sicher wott d Buebe gsee Fuessball schpile
        that he surely wants the boys see football   play

      d. dass er sicher wott gsee d Buebe Fuessball schpile
        that he surely wants see the boys football play

64.   a. wil de Hans sicher d Chind laat schtudiere
        because the H. surely the kids lets study

      b. wil de Hans sicher laat d Chind schtudiere
        because the H. surely lets the kids study

(64a) can receive either the causative or the permissive reading, while (64b) is odd on the permissive reading. This suggests a distinction along the following lines:

65.   a. causative *laa*: Agent Proposition   AcI-verb
      b. permissive *laa*: Agent Goal Proposition   object control verb

Huber (1980) argues for precisely this distinction with respect to German *lassen*.[25] He observes that the causative *lassen* does not allow the past participle form, hence the contrast in (66), taken from Huber (1980:35) and rendered in ZH:

66.   a. Ich ha mer Kafi und Chueche choo laa/*glaa
        I have me coffee and cake   come let / letPP
        "I had coffee and cake brought to me"

      b. Ich ha Kafi und Chueche schtaa laa/glaa und bi ggange
        I have coffee and cake .stand let / letPP and am left
        "I left coffee and cake standing and left"

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[25] Cf. also Reis (1976:13), Suchsland (1987a,b), Eisenberg (1989:385ff), and Bausewein
· (1990:228ff)·on the causative/permissive distinction of German *lassen*.

A further test for the causative distinction concerns passivisation: only permissive *lassen* allows matrix passivisation, illustrated in (67), from Huber (1980:60), and again rendered in ZH:

67. a. *Kafi und Chueche werded vo ois bringe glaa/laa
         coffee and cake are   by us bring letPP / let

     b. Kafi und Chueche werded vo ois schtaa glaa/laa
        coffee and cake are   by us stand letPP / let

It is sometimes pointed out that passivisation depends on the nature of the embedded verb: only with embedded intransitives is passivisation said to be possible - and if this is correct it clearly cannot have an influence on whether to analyse *lassen* as a two- or three-place verb.[26] Grewendorf (1992:6f) notes that "the result of passivising an AcI-verb whose complement governs an object is generally unacceptable", and he gives the following German example:

68.   ??Domingo wird von Carlos Kleiber den Alfredo singen gelassen
         D.   is by C.   K.   the Alfredo sing letPP
       "Domingo is made to sing 'Alfredo' by Carlos Kleiber"

(68) violates Huber's rule that causative *lassen* does not display a past participle form and this may be why it is unacceptable. If permissive *lassen* is employed, though, it seems to me that passivisation is possible both with transitive and intransitive embedded verbs, even if there is an embedded direct object. At least in ZH, passivisation is perfectly well-formed if *laa* is permissive, whereas it is ungrammatical with the causative *laa*:

69. a. D Chind werded vo de Eltere Hasch rauche glaa
        the children are by the parents pot smoke letPP
        "The children are allowed by the parents to smoke pot"

     b.*De Tokter wird vom Patiänt Morphium bringe laa
        the doctor is by the patient morphine bring let
        "The doctor is made to bring morphine by the patient"

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[26] Thanks to Joachim Sabel for pointing this out to me.

A further distinction between permissive and causative *laa* concerns pronominalisation, which shows that permissive *laa* takes two complements and causative *laa* only one:

70. a. Laat er d Chind jetz Hasch rauche? - Ja, das laat er *(si)
         lets he the kids now pot   smoke   yes, this lets he them

     b. Laat er de Tokter jetz Morphium bringe? - Ja, das laat er (*en)
         lets he the doctor now morphine bring   yes, this lets he (*him)

Given that there is sufficient evidence for two types of structures associated with *laa*, the two order variants in (64) can be derived as follows. (64a), repeated here as (71a), is assigned two structures, depending on which of the two readings is at issue; if the causative reading is intended, the structure is derived from the one in (64b)/(71b), which only receives the causative reading:

71. a. wil de Hans sicher d Chind laat [PRO schtudiere]
         because the H. surely the kids lets   study
         "because Hans surely allows the kids to study"

     a.' wil de Hans sicher d Chind$_i$ laat [t$_i$ schtudiere]
         "because Hans surely makes the kids study"

     b. wil de Hans sicher laat [d Chind schtudiere]
         "because Hans surely makes the kids study"

PRO is here employed purely for convenience, to indicate that there must be a semantic relation between the matrix object and the implicit subject of the infinitival. In the causative construction, the embedded subject has the option of moving up into the object position of the finite verb. This movement is comparable to raising-to-object,[27] but there is no need to identify the landing position with a theta position if theta structure is dissociated from case assignment. Since case cannot be assigned to the right, I assume that

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[27] For raising-to-object cf. Postal (1974), Postal & Pullum (1988), and Grewendorf (1991:19). Grewendorf analyses German AcI-constructions by moving the AcI-subject to the specifier position of an abstract AgrO-projection in the matrix clause. Movement is thus to a non-thematic argument position, and the objections of Chomsky (e.g.1986b) against subject-to-object movement become vacuous.

Accusative is assigned by *laat* to a position on its left and percolates down into the complement, unless movement to this case position takes place. This case percolation mechanism is basically the same as the one for subject raising verbs, alluded to above. There is no a priori reason why such a mechanism should be confined to Nominative case.

More needs to be said on PRO, the control relation, and the subject (position) of infinitival VPs in general. I propose that the subject position, SpecVP, is only expanded when it is lexically filled, i.e. in AcI constructions, and in subject raising constructions. This implies that SpecVP can be occupied by a trace. The main motivation for adopting a derivational analysis of raising rather than employing base-generation comes from the word order facts observed in ZH. A movement account allows correlating the two basic word order possibilities discussed above. Nothing else hinges on this, though. As for the control relation, I assume that this is dealt with in the semantics of the lexical entries of control verbs, as is customary in alternative syntactic theories such as LFG, GPSG and Categorial Grammar.[28] Henceforth, PRO will not be used in the notation anymore.

8. Towards an analysis

In previous work (Cooper 1988, 1990) I attempted to derive the word order possibilities of ZH infinitival complement constructions from an underlying left-branching structure, as is standardly done for German and Dutch. I would now like to propose that the underlying structure is a right-branching structure, with the linearisation of elements resembling that of extraposition. Such an approach is motivated primarily by the data - extraposition is always an option, and it can be considered the default, whereas intraposition (i.e. a centre-embedding left-branching structure) is only possible with bare infinitivals. Kayne (1993) proposes that all languages are underlyingly SVO and that all movement is to the left, which implies that extraposition structures are base-generated and that rightward movement as assumed in

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[28] Cf. e.g. Brame (1976), Bresnan (1982), Bach (1979), Gazdar (1982), Klein & Sag (1985), Dowty (1985), Jacobson (1992).

V(P)R is not allowed. Kaan (1992) and Zwart (1993) implement Kayne's ideas in their work on Dutch syntax. They argue that a head-initial VP makes superfluous the technical apparatus that has been proposed in the literature for deriving the various word orders found in Dutch infinitival complements. The analysis of ZH infinitivals suggested in this section also dispenses with the notion of extraposition and it requires no rightward movement, but besides these similarities it is quite different from the Dutch analysis. In particular, I do not assume that projections are uniformly head-initial (cf. Zwart 1992, 1993), but I do believe that ZH infinitival complements should be generated on the right of their governing verb. I have nothing to say on the position of finite complements. It has been suggested in German syntax that these should also be base-generated on the right (Bayer 1990; Haider 1994; for Dutch cf. Zwart 1992, 1993). For a discussion and arguments against such an approach the reader is referred to Büring & Hartmann (1994).

8.1. Diagnostics for bare verb clusters

I assume that adjacent verbs cluster together just as adjacent clitics cluster together. A diagnostic for a verb cluster is the inability to insert lexical material (cf. section 5 above). In a right-branching structure it is perfectly possible to insert material in between a series of verbs, but in a left-branching structure this is ruled out. If the left-branching structure is taken to be the underlying structure, this is altogether surprising. Consider the contrast in (72); the right-branching structure (a) allows the insertion of adverbs between the verbs (b), while the left-branching structure (c) does not (d):

72. a. dass de Peter [wott [singe]]
       that the P.   wants sing
       "that Peter wants to sing"

    b. dass de Peter ja wott überall öffentlich singe
       that the P. PART wants everywhere publicly sing
       "that Peter wants to sing everywhere in public"

    c. dass de Peter [[singe] wott]
       that the P.   sing wants
       "that Peter wants to sing"

d. *dass de Peter ja singe überall öffentlich wott
that the P. PART sing everywhere publicly wants

The same is illustrated in (73) with three verbs rather than two:

73. a. dass de Peter wott überall chöne öffentlich singe
that the P. wants everywhere can publicly sing
"that Peter wants to be able to sing everywhere in public"

b.*dass de Peter singe überall chöne öffentlich wott
that the P.   sing everywhere can publicly wants

The fact that no insertion is possible in the left-branching structure suggests that the verbs do not allow it because they have clustered together. It is of course possible to maintain that this is the underlying structure and that clustering is obligatory unless extraposition takes place.[29] It is not quite clear though how other orders can be derived at all from such a structure, given that clustering is obligatory. We then have to assume that there is a stage prior to clustering from which extraposition has to be derived. It is clearly more economical to dispense with this unmotivated underlying structure, which is in many cases ungrammatical anyway, and derive the various orders from a structure which is itself grammatical.

8.2. Infinitivus pro Participio (IPP)

It is well-known that in Dutch the Infinitivus pro Participio phenomenon can be used as a diagnostic of Verb Raising (VR) or verb clustering, since VR and IPP coincide (cf. den Besten et al 1988). In Cooper (1990) I claimed that this was not the case in ZH because of data like (74):

74. a. dass mir ire s Gnoosch händ ghulfe uufruume
that we her the mess have helpedPP tidy up
"that we helped her tidy up the mess"

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[29] I argued along these lines in Cooper (1990).

b. dass mir ire s Gnoosch händ hälfe uufruume
that we her the mess have helpIPP tidy up

(74) shows that both past participle or IPP are possible, whereas in Dutch the past participle would be ruled out in this context. However, (74a) is only a counterexample if a left-branching base structure is adopted, which implies that VR must have taken place since the verbs occur in inverted order. If the verbs in (74) are taken to be in their base order no such contradiction arises. IPP then becomes a valid criterion for a verbal cluster in ZH, as nothing can be inserted between the auxiliary and the IPP:

75.   a. dass mir ire s Gnoosch händ ganz schnäll ghulfe uufruume
that we her the mess have very quickly helpedPP tidy up

b.*dass mir ire s Gnoosch händ ganz schnäll hälfe uufruume
that we her the mess have very quickly helpIPP tidy up

The occurrence of IPP is however a minor criterion for verb clusters in ZH, because it can only be used with a handful of verbs, viz. *hälfe* "help", *leere* "learn; teach", *ghöre* "hear" and *gschpüüre* "feel". The modal verbs and *gsee* "see" for instance have no separate past participle form, i.e. their past participle is homomorphous with the infinitive.

8.3. Diagnostics for z-verb clusters

ZH provides two very clear diagnostics for clusters involving z-infinitivals, viz. the so-called missing and misplaced z phenomena which were first discussed in Cooper (1990). Consider (76a) where z is missing from the position marked "_". The verb *verschpräche* selects a z-infinitive, and so does the verb *probiere*, but only one z shows up. The German equivalent is given in (76b):

76.   a. Er hät verschproche sin Brüeder _ probiere z erreiche
he has promised   his brother   try   to reach
"He promised to try to reach his brother"

b. Er hat versprochen seinen Bruder zu erreichen zu probieren
he has promised   his brother to reach   to   try

In the case of misplaced *z* it turns up in front of the wrong verb. In (77), *verschpräche* "promise" selects a *z*-infinitive, so *z* would be expected to appear in front of *laa*, as in (77a). In (77b), however, the verbs are flipped round and *z* now precedes the wrong verb. The verb *laa* selects bare infinitives.

77.   a. Er hät verschproche de Hund schwüme z laa
         he has promised   the dog swim to let
         "He promised to let the dog swim"

       b. Er hät verschproche de Hund la z schwüme
          he has promised   the dog let to swim
          "He promised to let the dog swim"

Examples like (77b) can often be heard, and a few are given in (78), recorded from programmes of a Zurich radio station. In (78a) *z* is triggered by the preposition *um*, and in (78b) and (78c) by the preposition *ohni*:

78.   a. Um Gerächtigkeit chöne z haa, mues mer....
         in order to justice   can to have must one...
         "In order to be able to have justice one must..."

       b. ...ohni s Schtüürrad mit bedne Händ müese z verlaa chönd Si rede
          without the wheel with both hands must to leave   can you talk
          "you can talk (phone) without having to leave the steering wheel
              with both hands"

       c. ...ohni de Telefonhörer i de Hand müese z haa
          without the receiver in the hand must to have
          "without having to hold the receiver in your hand"

A similar but unrelated case of misplaced *zu* in German will be discussed in the next subsection (8.3.). Relevant in the present context is the fact that any insertion of lexical material between the verbs is incompatible with missing or misplaced *z*. Irregular *z*-behaviour can thus be taken as indicative of clustering. Suppose (79a) is the underlying order with the optional indirect object of *telefoniere* scrambled out of the way:[30]

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[30] In Cooper (1990) an analysis involving a left-branching base structure was assumed (cf. (ia)), which required a number of ad-hoc stipulations to account for the following pattern:
(i)   a. *Er hät vorghaa sim Brüeder z telefoniere z probiere

79. a. Er hät vorghaa (sim Brüeder) z probiere nach Paris z telefoniere
       he has intended (to his brother) to try   to   Paris to phone
       "He intended to try to phone (his brother) in Paris"

   b.*Er hät vorghaa (sim Brüeder) _ probiere nach Paris z telefoniere

   c. Er hät vorghaa (sim Brüeder) _ probiere z telefoniere

(79b) shows that missing z is not compatible with an adverbial between the two infinitives, although the adverbial is well-placed in (79a), where no z is missing. In (79c) the infinitives cluster together and the sentence is grammatical. These contrasts are subtle but real. Before dealing with the derivations of the various order possibilities a discussion of the status of the infinitival marker z is in order. This is the subject of the following subsection.

8.4. On the status of the infinitival marker z

At first sight one might assume that the infinitival marker z in ZH has the same status as German zu, Dutch te, English to, and its correspondent in the other Germanic languages. However, not all Germanic languages can be lumped together in this respect. With respect to English to, Pullum (1981) establishes that it is not a verbal affix: (a) it can be separated from the verb, (b) it can be stranded by Right Node Raising, and (c) by VP-fronting. ZH z displays none of these properties:

80. a. to boldly go where no man has gone before
    b. McCoy wouldn't like to, and he probably won't, become the sort of person that Spock is
    c. ...and proceed I intend to

81. a.*si probiert z älei reise
       she tries to alone travel

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he has intended to his brother to phone to try
b. *Er hät vorghaa sim Brüeder telefoniere z probiere
c. Er hät vorghaa sim Brüeder probiere z telefoniere

    b.*er probiert z, und wird sicher au, güne
       he tries to   and will surely also win

    c.*...und wiitermache probier ich z
       and   continue   try I to

Pullum next dismisses the claim that *to* is a complementiser, as was assumed in Postal & Pullum (1978). While *to* can be stranded, the complementiser *that* cannot. Next, he discusses proposals that take *to* to be generated under AUX (Sag 1976, Bach 1981), and argues against grouping *to* together with tense affixes for lack of syntactic evidence. Nor are there semantic reasons to link *to* with tense, Pullum points out. He then proposes that *to* should be treated as a member of the subclass of auxiliary verbs on the basis of distributional evidence: (a) in VP ellipsis, the element preceding the missing VP must be either a modal verb or *to*, (b) elements that cannot bear stress when stranded include *to*, the infinitives *be* and *have*, and (for British English) the infinitive *do*[31], and (c) further arguments having to do with the position of *not*, VP ellipsis involving *not*, and *to*-contraction. As he admits himself, none of these arguments is entirely compelling, but alternative categorisations seem to have even less support, and there are no arguments against his proposal. It might be objected that *to* is never finite, lacks present and past participle forms, etc., but this is simply because, like so many other verbs, it has a defective paradigm. He thus takes *to* to be a kind of dummy auxiliary verb, functioning as a marker and head of an infinitival VP (or clause).

Following Pullum, there is no case for treating z as a verb, and the contrasts between (80) and (81) leave open the possibility that z is a verbal affix. Further evidence for regarding it as a verbal prefix is that z cannot be omitted in conjoined VPs and that it behaves like the *g*-prefix of the past participle, in that it occurs medially in separable prefix verbs (cf. Haider 1988, 1993 on German *zu*):

82.   He promised to phone and write

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[31] Zwicky & Levin (1980) conclude from this that these elements form the grammatical class of "infinitoids"; and Pullum refers to this class as base-form auxiliaries.

83.   a. *Er hät verschproche z telefoniere und schriibe
         he has promised   to phone   and write

      b. Er hät verschproche z telefoniere und z schriibe

84.   a. uuf-z-mache,
         to open

      b. uuf-g-macht
         opened

In German syntax the debate on whether the infinitival marker *zu* is a verb prefix and or a functional head continues. A rather marginal phenomenon of misplaced *zu* is often cited as evidence in favour of *zu* being an INFL element.[32] This can be observed in constructions with an embedded *zu-haben*+2 .infinitives-complex, as the following examples from Stechow & Sternefeld (1988:380, 444) show:

85.   a. ohne ihn haben sehen zu können
         without him have see to can
         "without having been able to see him"

      b. Er scheint ihn haben sehen zu können
         he seems him have see to   can
         "He seems to have been able to see him"

In (85a/b) *zu* is triggered by *ohne* and *scheint* respectively and would be expected to occur in front of *haben*, the highest embedded verb. Stechow & Sternefeld consider these data to be evidence that *zu* is always generated in INFL, with subsequent incorporation into the rightmost verb at PF, after inversion has reordered the verbs. Sternefeld (1989:31ff) further modifies this analysis, employing lexical as well as syntactic *zu*-incorporation. In some cases *zu* is base-generated together with the verb; in others it is generated in the INFL position to which the verb moves. The evidence for an independent

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[32] Wilder (1988, 1989) proposes that *zu* should be generated in COMP. This idea has since been superseded and will therefore be ignored here. Cf. Cooper (1990) for arguments against generating ZH *z* in a clause-final COMP. For arguments in favour of generating *zu* in T(ense), largely based on the misplaced *zu* cases and not relevant to the present ZH concerns, given that no Tense Projection is assumed in this thesis, cf. Grewendorf (1990).

functional status of *zu* is meagre, though. Haider (1993:235) notes that data such as (85) do not provide sufficient evidence to treat *zu* as anything other than a flexive, on a par with the *ge*-prefix of the past participle. Data like (85) are peripheral in German, and not directly comparable with the ZH cases of misplaced *z*. It appears that German *zu* cannot occur in front of an infinitive that functions as a past participle. Bech (1963) speaks of grammar rules in conflict and regards (85) as compromise constructions.

9. Analysis

This section shows how the various order possibilities in constructions involving bare and *z*-infinitivals can be derived. The analysis is a further development of the one proposed in Cooper (1990) and involves a contextually-triggered process of verb clustering which applies whenever two verbs are adjacent. It dispenses with a number of stipulations regulating the distribution of the prefix *z*. Furthermore, it is significantly different from its predecessor in assuming a right- instead of left-branching underlying structure, at least as far as VPs are concerned. Arguments are still generated on the left of their governing verb. This implies that no generalisation can be made for the ZH VP regarding the head parameter, as V is final or initial depending on the complement it selects.[33]

9.1. Verb clustering and inversion

(86) illustrates the position of a finite verb with respect to its NP and VP complements:

86.   a. dass de Hans mir das verschpricht
          that the H. to-me this promises

       b. dass de Hans mir verschpricht z poschte
          that the H. to-me promises to shop

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[33] In view of recent developments which abandon X'-theory (Chomsky 1994) the head parameter loses its theoretical import as it is.

Consider now a more complex case, where (a) is the base structure, which is itself a perfectly grammatical order possibility. I assume that (87b/c) are derived from (87a) at a relatively late stage, somewhere between S-structure and PF if not at PF. Scope data, to be discussed in 9.2. below, provide support for a late process:

87. a. dass de Hans mir verschpricht z probiere em Papscht z telefoniere
        that the H. to-me promises   to try   to-the Pope to phone
        "that Hans promises me to try to phone the Pope"

    b. dass de Hans mir verschpricht em Papscht$_i$ probiere t$_i$ z telefoniere

    c. dass de Hans mir verschpricht em Papscht$_i$ [$_{VC}$ telefoniere z probiere]

    d.*dass de Hans mir verschpricht (z) probiere z telefoniere em Papscht

The derivations (87b/c) involve scrambling and verb clustering. The primary condition for clustering is linear adjacency. If the NP *em Papscht* is not scrambled away, the two infinitives do not cluster together, i.e. the lower infinitive cannot move across its object NP to form a verbal complex with the higher infinitive (d). The structures for (87a) and (87b/c) are as follows:

88. a. [$_{CP}$ dass [$_{VP}$ de Hans [$_{VP/V'}$ mir [$_{VP}$ verschpricht [$_{VP}$ z probiere
        [$_{VP}$ em P. z telefoniere]]]]]]

    b.....[$_{VP}$ verschpricht [$_{VP}$ em Papscht [$_{VP}$ $_{VC}$ probiere z telefoniere]]]

    c.....[$_{VP}$ verschpricht [$_{VP}$ em Papscht [$_{VP}$ $_{VC}$ telefoniere z probiere]]]

Verb cluster formation here takes place across the trace of *em Papscht*, i.e. the trace is inert to clustering. The immediate structure dominating the verbs which cluster together is reanalysed. Clustering results in the loss of z if the first verb is prefixed by z, and it may be accompanied by inversion. Whether one or two prefixes are involved, the target is always a verb cluster of the shape [$_{VC}$ VERB (Z) VERB]. That clustering is never obligatory is shown in (89): insertion of an adverbial like *det ane* "to there" between the verbs is possible throughout, i.e. in all the positions marked @:

89.   a. dass er ja @ hät @ verschproche @ z probiere @ z telefoniere
          that he PART has promised   to try   to telephone
          "that he has promised to try to telephone"

       b. dass er ja @ au @ hetti @ chöne @ wele @ telefoniere
          that he PART also would have can want telephone
          "that he could possibly have wanted to telephone"

Note that a verb cluster can easily be fronted, whereas two z-infinitives in initial position are less felicitous. This suggests that the tendency to cluster is stronger in fronted position. The alternative explanation, viz. that a z-infinitival embedding another z-infinitival cannot be moved is less likely to be true, since z-infinitives on their own are able to undergo fronting:

90.   a. [$_{VC}$Probiere z telefoniere] hät er ja verschproche
                 try   to telephone   has he PART promised

       b. ?* [Z probiere z telefoniere] hät er ja verschproche

       c. [Z telefoniere] hät er ja verschproche

Consider now some further derivations, involving a modal verb. (91a) is the base structure. VP labels are omitted in the derivations.

91.   a. wil [$_{VP}$er doch [$_{VP}$ sött [$_{VP}$ probiere [$_{VP}$ de Papscht z erreiche]]]]
          because he PART   should   try   the Pope to reach
          "because he should try to reach the Pope"

       b. wil er doch sött de Papscht$_i$ probiere t$_i$ z erreiche

       c. wil er doch de Papscht$_i$ sött probiere t$_i$ z erreiche

       d. wil er doch de Papscht$_i$ [$_{VC}$ probiere sött] t$_i$ z erreiche

       e. wil er doch [$_{VC}$ probiere sött] de Papscht z erreiche

       f. wil er doch de Papscht [$_{VC}$ erreiche [$_{VC}$ sött probiere]]

       g. wil er doch de Papscht [$_{VC}$ [$_{VC}$ erreiche probiere] sött]

       h. *wil er doch [$_{VP}$ de Papscht z erreiche]$_i$ sött probiere t$_i$

i. *wil er doch [$_{VP}$ de Papscht z erreiche]$_i$ [$_{VC}$ probiere sött] t$_i$

k. *wil er doch sött de Papscht [$_{VC}$ erreiche z probiere]

(91b) is derived by scrambling the NP to a higher position, across one verb. The landing site of this type of movement is supposedly a position adjoined to VP (but cf. 9.3. below for further discussion). Likewise, (91c) is derived by moving the NP across two verbs. The verbs are adjacent but need not cluster. Insertion of adjuncts is possible. (91d) is derived by moving the NP across two verbs and by clustering of *sött* and *probiere*, followed by inversion. Adjuncts may occur before or after this verb cluster, but not in between. The same two verbs cluster and invert in their base position to produce (91e). In (91f), the NP is again moved to a position in front of all the verbs as in all the remaining derivations, and all three verbs cluster together. I assume tentatively that this cluster has a binary structure as indicated, with the two higher verbs clustered together more closely, and that inversion has applied at the upper node. In (91g) the verb cluster is such that the two lower verbs are clustered together more closely, and inversion has applied at both nodes.

Note that (f) and (g) cannot be derived by means of movement to the left of the VP [de Papscht z erreiche] as this would leave the absence of *z* unexplained. That such VP-movement is ungrammatical is illustrated by (91h) and (91i). Derivation by means of verb clustering is ruled out too, since [$_{VC}$ z V V] does not form an acceptable cluster.

(91k), finally, is ungrammatical because the verb cluster [$_{VC}$ V z V] is not selected by the modal verb *sött*, which selects a bare infinitive or verb cluster instead. That there is nothing wrong as such with the verb cluster can be seen in (88c), where we have a comparable VC which is however selected by a verb triggering *z*.

To recapitulate, two or more verbs may cluster together as soon as they are adjacent and inversion applies, provided the outcome corresponds to an acceptable verb cluster of the form [$_{VC}$ V (z) V]. This system is superior to the one proposed in Cooper (1990) because it requires no lexical conditions on either clustering or inversion. The only lexical property involved is that of

status government.[34] Modal verbs and perception verbs status-govern the first status, i.e. a bare infinitive, verbs like *probiere*, "try", status-govern the second status, a z-infinitive, and auxiliaries status-govern the third status, the past participle.[35] I assume that status government is to the right in ZH, in contrast to case government, which is to the left.

This brings us to the positions of auxiliaries and past participles. In general, the auxiliary appears on the right of the participle, as in (92a). If the participle embeds a further verb, though, either order is possible:[36]

92. a. wil d Maria s Krokodil gsee hät
     bec. M. the crocodile seen has
     "because Maria saw the crocodile"

     b. ??wil d Maria s Krokodil hät gsee

     c. wil d Maria s Krokodil gsee hät frässe
     because M. the crocodile seen has eat
     "because Maria saw the crocodile eat"

     d. wil d Maria s Krokodil hät gsee frässe

     e. wil d Maria s Krokodil hät gsee en Fisch frässe
     bec. M. the crocodile has seen a fish eat
     "because Maria saw the crocodile eat a fish"

If auxiliaries are treated as full verbs that select VPs, we are faced with the following problem. The base structure is rarely a grammatical string and movement out of the VP as well as inversion must then be made obligatory. In

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[34] "Status" refers to the verb form, i.e. bare infinitive, z-infinitive, past participle. The notion of "status government" is due to Bech (1955) (cf. also Stechow 1984, 1990) and has been reinvented in GB as "verbal case" by Fabb (1984).

[35] To be precise, Bech (1955) distinguishes two sets, the supine forms and the participles, but we are only concerned here with the supine forms. I use the term "past participle" to refer to Bech's third status supine form. The distinctions Bech makes are exemplified in (i) for the verb *essen* "eat":

(i)   supine   participle
  first status essen   essend(er)
  second st.   zu essen   zu essen(der)
  third st.   gegessen   gegessen(er)

[36] Note that in the dialect of Bern, the standard order is as in (92b).

parallel to other verbs discussed so far, (93a) would be the underlying structure, itself an ungrammatical string:

93. a.*wil d Maria ja hät s Krokodil gsee
     because M. PART has the crocodile seen

    b.??wil d Maria ja s Krokodil¡ hät t¡ gsee

    c. wil d Maria ja s Krokodil [VC gsee hät]

It is clear that this is not a plausible solution. I have no explanation for the distribution of auxiliaries and participles at present. The best I can offer is the hypothesis that the process of scrambling and clustering plus inversion, which we observe with other verbs as a mere tendency, has in the case of auxiliaries become grammaticalised to the point that only the end result is a grammatical product. I leave this issue to future research.

9.2. Scope

It has been suggested that verb clusters are the outcome of a late process, possibly taking place at PF. The fact that no scope effects can be observed supports this view. If two interpretations are available in (94b), and only one in the base structure (94a), then this is due to scrambling the negatively quantified object NP into a higher position, from where it can take scope over the finite verb. As discussed above (5.2.) it is characteristic of a coherent construction - and thus of a verbal complex in the present approach - that a scope element includes all verbs.

94.   a. wil sicher oisi Chind probiered [kei Hasch z rauche]
          because surely our kids try   no pot to smoke
          "because our kids surely try not to smoke any pot"

      b. wil sicher oisi Chind kei Hasch¡ probiered [t¡ z rauche]
          because surely our kids no pot   try   to smoke
          (i) "because our kids surely try not to smoke any pot"
          (ii) "because our kids surely don't try to smoke any pot"

The same pattern can be observed with a modal verb. The difference between "want to not do something" and "not want to do something" is more subtle than with "try". Due to clustering, a further word order possibility arises in (95):

95. a. wil sicher oisi Chind wänd [kei Hasch rauche]
       because surely our kids want no pot   smoke
       "because our kids surely want to smoke no pot"

    b. wil sicher oisi Chind kei Hasch$_i$ wänd t$_i$ rauche
       because surely our kids no pot   want   smoke
       (i) "because our kids surely want to smoke no pot"
       (ii) "because our kids surely don't want to smoke any pot"

    c. wil sicher oisi Chind kei Hasch [$_{VC}$ rauche wänd]
       because surely our kids no pot   smoke want
       (i) and (ii), as for (b)

Fronting provides extra evidence that (95a) should be regarded as the base structure. As in (95a), only the reading with narrow scope of the negation is available here.[37] If we take the linearisation of (95c) to be the underlying order, as has been customary so far in analyses of these data, it is unclear how the wide scope reading should be ruled out when the VP is fronted.

96. [Kei Hasch rauche] wänd oisi Chind
     no pot   smoke   want our kids
    "To smoke no pot, (this is what) our kids want"

The second reading (ii) in (94b) and (95b/c) could be derived from a different structure. The negative determiner kei in (94) is a cohesive element, consisting of a negation nöd plus an unexpressed indefinite determiner (cf. English not any). Stechow (1992), following Kratzer (1988), suggests for German that readings like (ii) can be derived by a cohesion rule applying between S-structure and PF. The input to this rule is a negation followed by an indefinite

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[37] Thanks to Beatrice Santorini for drawing my attention to these data.

NP,[38] as in (97a), and the rule then merges the negation with the indefinite part of the NP, yielding (97b):

97.   a. wil sicher oisi Chind nöd Hasch$_i$ probiered t$_i$ z rauche
         because surely our kids not pot   try   to smoke
         "because our kids surely don't try to smoke pot"

      b. wil sicher oisi Chind kei Hasch$_i$ probiered t$_i$ z rauche

In addition to being a derivational base of (97b), (97a) is a perfectly well-formed clause in its own right. If Stechow and Kratzer are right and the cohesion rule operates at PF, we would expect it to apply with any matrix verb, and this seems to be the case.[39] What does not apply with any matrix verb is rightward movement of an embedded object as in (94) - (97). The relevant distinction between verbs allowing and not allowing scrambling of embedded elements is usually made in terms of transparency versus opacity of the embedded (clausal) category. This is the subject of the next section.

9.3. Transparent versus opaque infinitival complements

In German there is a rather heterogeneous class of verbs allowing scrambling out of their infinitival complements.[40] The verbs at issue are those taking bare

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[38] Kratzer (1988) assumes that singular negative indefinites may but do not need to be derived by means of this cohesion rule, whereas plural negative indefinites and negative mass nouns must always be derived this way. The contrasts motivating her theory are not uncontroversial, though, and they involve her distinction between temporary and permanent predicates (cf. chapter 2).

[39] In an ARC talk on negation in ZH infinitival complements in 1991 I claimed that there was a contrast between verbs like *probiere*, "try", on the one hand and *verschpräche*, "promise", in that an example like (i) only admits the one reading, unlike (89b):
(i) dass er kei Artikel verschpricht z schriibe
    that he no articles   promises to write
    "that he promises to write no articles"
However, I now consider this false. Given the appropriate context, it is quite to easy produce an example where the second reading is also possible, e.g.
(ii) Wieso überrascht dich das, wänn er doch gar kei Artikel verschproche hät z schriibe?
     why surprises you this if   he PART no articles   promised   has to write
     "Why does this surprise you, if he hasn't even promised to write any articles?"
[40] In approaches treating infinitival complements as clauses, this movement is usually referred to as long scrambling.

infinitival complements as well as ECM verbs, raising verbs, and certain subject control verbs without any additional complements, such as *versuchen* "try", *beginnen* "begin", *hoffen* "hope" (cf. Grewendorf & Sabel 1994:264f.). Other subject control verbs without additional complements which select opaque infinitival complements include *behaupten* "claim", *bedauern* "regret" and *zögern* "hesitate"; hence the following contrast:

98.   a. dass [den Hund]ᵢ keiner tᵢ zu füttern versuchte
          that the dog nobody to feed   tried
          "that nobody tried to feed the dog"

       b.*dass [den Hund]ᵢ keiner tᵢ zu füttern zögerte
          that the dog nobody to feed hesitated
          "that nobody hesitated to feed the dog"

According to Sabel (1994), a subject control verb with optional dative object like *versprechen* "promise" selects a transparent complement, whereas similar verbs like *anbieten* "offer", *zusichern* "assure" and *gestehen* "confess" select opaque complements:

99.   a. dass [dieses Auto]ᵢ jemand Tom tᵢ zu waschen versprach
          that this car   somebody Tom to wash   promised
          "that somebody promised Tom to wash this car"

       b.*dass [dieses Auto]ᵢ jemand Tom tᵢ zu waschen anbot
          that this car   somebody Tom to wash offered
          "that someone offered Tom to wash this car"

Sabel points out that a matrix Dative object does not in principle block scrambling, but verbs selecting an Accusative object plus an infinitival complement (direct object control verbs) generally disallow scrambling, i.e. their infinitival complements are opaque to movement. Among the German verbs he lists are *bitten* "ask, beg", *drängen* "urge", *lehren* "teach", *ermuntern* "encourage", *abhalten* "deter", and *anflehen* "beseech". An example is given in (98):

100. *dass [dieses Auto]ᵢ jemand Tom tᵢ zu waschen gebeten hat
     that this car somebody Tom to wash   asked has
     "that somebody asked Tom to wash this car"

Sabel suggests that the prohibition of long scrambling across Accusative objects has a structural reason and he includes clitic climbing in his account. If there is an Accusative object, the complement clause is not adjacent to the matrix verb and is therefore not a barrier to long movement. In addition, there is also a lexical property involved. The non-realisation of an Accusative object is only a necessary but not a sufficient condition for scrambling to be possible. Sabel takes this lexical property to be an incorporation feature [+R], which some verbs may optionally realise. Without going into the details of his account, we will now check whether his generalisations for German carry over to ZH. Verbs embedding bare infinitivals all allow movement out of their complements. As for verbs embedding z-infinitivals, the following divergences from German can be observed. Among subject control verbs without additional complements, ZH *behaupte* "claim" and *beduure* "regret" embed a transparent infinitival, unlike their German counterparts, hence

101. a. dass de Peter [die Schauspielerin]ᵢ behauptet tᵢ z käne
        that the P. this actress   claims to know
        "that Peter claims to know this actress"

     b. dass de Peter [das Schtück]ᵢ beduuret tᵢ verpasst z haa
        that the P. this play   regrets   missed to have
        "that Peter regrets to have missed this play"

Among subject control verbs with optional Dative objects, *aabüüte* "offer", and *zuesichere* "assure" embed transparent complements, in contrast to German:[41]

102. a. dass [säb Auto]ᵢ öpper·em Peter aabüütet tᵢ z wäsche
        that that car someone Peter offers to wash
        "that someone offers Peter to wash that car"

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[41] The ZH verb *gschtaa* "confess" selects a finite complement rather than an infinitival and is therefore not mentioned here.

b. dass [säb Auto]ᵢ öpper em Peter zuegsicheret hät tᵢ z chauffe
   that that car someone   Peter assured   has to buy
   "that someone has assured Peter of buying that car"

As for Accusative control verbs, which prohibit long scrambling in German, there are certain ZH verbs whose infinitival complements are nevertheless transparent, viz. *bitte* "ask, beg", *dränge* "urge", and *leere* "teach", hence:

103.   a. dass [säb Auto]ᵢ öpper de Peter bittet tᵢ z wäsche
          that that car   someone Peter asks to wash
          "that someone asks Peter to wash that car"

       b. dass [säb Auto]ᵢ öpper de Peter trängt hät tᵢ z wäsche
          that that car someone Peter urged has to wash
          "that someone urged Peter to wash that car"

       c. dass [gueti Artikel]ᵢ dich öpper gleert hät tᵢ z schriibe
          that good articles you someone taught has to write
          "that someone has taught you to write good articles"

All the ZH verbs embedding transparent infinitivals have something in common which distinguishes them from verbs embedding opaque complements: they also select NP complements, e.g.:

104. Er beduuret das, büütet das aa, behauptet das, leert das etc.
     he regrets this, offers this , claims this, teaches this

This correlation between selecting an NP and selecting a transparent infinitival, which in the present account is taken to be a VP, brings to mind a correlation Webelhuth (1989:208ff) established between verbs selecting either an NP (DP in his thesis) or a CP (finite clause) and verbs that do not select an NP. The first group allow their CP-complements to be fronted, the second do not. This distinction is exemplified in (105)/(106):

105.   a. Ich glaube dass Hans wieder gesund ist
          I believe that H. again   well is
          "I believe that Hans is well again"

       b. Ich glaube das
          "I believe this"

c. Dass Hans wieder gesund ist glaube ich
   that Hans again well   is believe I
   "That Hans is well again I believe"

106. a. Ich freue mich dass Hans wieder gesund ist
        I am happy that H.   again well   is
        "I am happy that Hans is well again"

     b.*Ich freue mich das
        I am happy this

     c.*Dass Hans wieder gesund ist freue ich mich
        that H.   again well   is I am happy

Webelhuth accounts for this distribution in terms of an NP-trace with which
the CP-complements of certain verbs are linked. This NP-trace is generated on
the left of the matrix verb, whereas finite CPs are generated on the right. The
ability of a verb to select an NP complement is now tied to the availability of
an NP-trace. I shall leave aside the question whether such a trace is really
required, or whether it is sufficient to say that there are potential argument
positions available on the left of the verb embedding an infinitival VP on its
right, and that embedded arguments may move into these positions. If on the
other hand a verb selects no NP arguments, it has no potential argument
positions available, and movement across this verb is ruled out. It remains to
be worked out how argument and adjunct positions are distinguished, if they
need to be distinguished at all. Note that movement out of an infinitival VP
need not be to the leftmost position:

107. a. dass öpper em Peter aapote hät säb alt Auto abzhole
        that someone the P. offered has that old car to collect
        "that someone offered Peter to collect that old car

     b. dass öpper em Peter säb alt Auto$_i$ aapote hät t$_i$ abzhole

     c. dass öpper säb alt Auto$_i$ em Peter aapote hät t$_i$ abzhole

     d. dass em Peter säb alt Auto$_i$ öpper aapote hät t$_i$ abzhole

     e. dass säb alt Auto$_i$ em Peter öpper aapote hät t$_i$ abzhole   etc.

If an adjunct is inserted in the main clause the order freedom among higher
and lower arguments is unaffected:

108.   a. dass geschter öpper em Peter aapote hät säb alt Auto abzhole
          that yesterday someone the P. offered has that old car to collect
          "that someone offered Peter yesterday to collect that old car"

       b. dass öpper em Peter geschter säb alt Auto aapote hät abzhole

       c. dass em Peter geschter säb alt Auto öpper aapote hät abzhole

       d. dass säb alt Auto em Peter geschter öpper aapote hät abzhole

       e. dass em Peter säb alt Auto öpper geschter aapote hät abzhole   etc.

When there are several levels of embedding we predict movement to be
possible across all those verbs which potentially select an NP, such as
vorschlaa "suggest" and *probiere* "try" in (109), but not across *zögere*
"hesitate", in (110):

109.   a. dass öpper em P. vorgschlage hät z probiere säb Auto z verchauffe
          that someone the P. suggested has to try   that car to sell
          "that someone suggested to Peter to try to sell that car"

       b. dass öpper em Peter vorgschlage hät säb Auto z probiere z verchauffe

       c. dass öpper säb Auto em Peter vorgschlage hät z probiere z verchauffe

110.   a. dass de Peter zögeret hät z probiere säb Auto z verchauffe
          that the P. hesitated has to try   that car to sell

       b. dass de Peter zögeret hät säb Auto z probiere z verchauffe

       c.*dass de Peter säb Auto zögeret hät z probiere z verchauffe

       d. dass de Peter probiert hät z zögere säb Auto z verchauffe
          that the P. tried   has to hesitate that car to sell

       e.*dass de Peter probiert hät säb Auto z zögere z verchauffe

       f.*dass de Peter säb Auto probiert hät z zögere z verchauffe
          .

9.4. Concluding remarks

The analysis of the verbal complex presented in this chapter makes use of an inversion process which applies to verb clusters at a late stage of syntax, between S-structure and PF. Since there is syntactic evidence for verb clusters it is plausible that inversion is also a syntactic rather than a PF phenomenon. Verb cluster formation depends on adjacency and results in a constituent that is not compatible with the standard X'-theoretical assumptions about structure. It remains to be investigated whether clustering and inversion are general syntactic phenomena. At the end of Chapter 2 it was noted that two object NPs may form a constituent which can be fronted. In Chapter 3, clusters of pronominal clitics were discussed, and in Chapter 4 it was suggested that there is a surfacy subject-verb inversion process in embedded V2 clauses. Further research is required to establish the conditions of these phenomena and their relation to those inversion processes which serve a clear function, such as interrogative inversion. If inversion can be established as a process which applies at varying levels of syntax it may be possible to employ it for the derivation of word order variation in the middle field as well. In cognitive terms, inversion would seem to be a primitive operation. In language it is also a frequent phenomenon (e.g. metathesis) and it would be interesting to pursue the question whether it should be employed as a primitive process in syntax, instead of mimicking inversion effects by means of iterative movement.

Bibliography

Abney, S.P. (1987) *The English Noun Phrase in its Sentential Aspect*, Ph.D. Dissertation, MIT.

Ackema, P., A. Neeleman & F. Weerman (1993) Deriving Functional Projections, OTS Working Papers, University of Utrecht.

Alber, B. (1989) Il Fenomeno del pro-drop nel dialetto Sudtirolese, ms. University of Venice.

Altmann, H. (1981) *Formen der 'Herausstellung' im Deutschen. Rechtsversetzung, Linksversetzung, Freies Thema und verwandte Konstruktionen*, Tübingen: Niemeyer.

Bach, E. (1979) "Control in Montague Grammar", *Linguistic Inquiry*, 10: 515-531.

Bach, E. (1981) "Purpose clauses and control", in: P. Jacobson & G.K. Pullum (eds.) *The Nature of Syntactic Representation*, Dordrecht: Reidel.

Bader, T. (1990) *Locality Constraints on Wh-Constructions in Bernese and other Germanic languages*, Arbeitspapier Sprachwissenschaft University of Bern, 27.

Baker, M. (1988a) "Against Reanalysis of Heads", *McGill Working Papers in Linguistics. Special Issue on Comparative Germanic Syntax*, McGill University, Montreal, 36-60.

Baker, M. (1988b) *Incorporation. A Theory of Grammatical Function Changing*, Chicago: University of Chicago Press.

Baltin, M.R. (1982) "A Landing Site Theory of Movement Rules", *Linguistic Inquiry*, 13: 1-38.

Bausewein, K. (1990) *Akkusativobjekt, Akkusativobjektsätze und Objektsprädikate im Deutschen*, Tübingen: Niemeyer.

Bayer, J. (1984) "COMP in Bavarian Syntax", *The Linguistic Review*, 3: 209-274.

Bayer, J. (1989) Notes on the ECP in English and German, ms. Nijmegen.

Bayer, J. (1990) *Directionality of Government and Logical Form*, Habilitation, University of Konstanz.

Bayer, J. (1994) *Barriers for German*, Arbeitspapiere des Sonderforschungsbereichs 340, University of Stuttgart, 47.

Bayer, J. & J. Kornfilt (1990) "Restructuring Effects in German", in: E. Engdahl et al (eds.) *Parametric Variation in Germanic and Romance: Proceedings from a DYANA Workshop, September 1989,* Edinburgh Working Papers in Cognitive Science, 6: 21-42.

Bech, G. (1955) *Studien über das deutsche Verbum infinitum,* Königliche Dänische Akademie der Wissenschaften.

Bech, G. (1963) "Grammatische Gesetze im Widerspruch", *Lingua,* 12: 291-299.

Behaghel, O. (1932) *Deutsche Syntax,* Vol.4, Heidelberg.

Benincà, P. (1989) "Introduction", in: P. Benincà (ed) *Dialect Variation and the Theory of Grammar,* Dordrecht: Foris, 1-8.

Bennis, H. & L. Haegeman (1984) "On the Status of Agreement and Relative Clauses in West Flemish", in: W. de Geest & Y. Putseys (eds.) *Sentential Complementation,* Dordrecht: Foris, 33-53.

Besten, H. den (1977) On the Interaction of Root Transformations and Lexical Deletive Rules, ms. Amsterdam University (for published version cf. den Besten (1983).

Besten, H. den (1983) "On the Interaction of Root Transformations and Lexical Deletive Rules", in: W. Abraham (ed.), *On the Formal Syntax of the Westgermania,* Amsterdam: Benjamins, 47-131.

Besten, H. den (1985) "The Ergative Hypothesis and Free Word Order in Dutch and German", in: J. Toman (ed.) *Studies in German Grammar,* Dordrecht: Foris, 23-64.

Besten, H. den & J. Edmondson (1983) "The Verbal Complex in Continental West Germanic", in: W. Abraham (ed.), *On the Formal Syntax of the Westgermania,* Amsterdam: Benjamins, 155-216.

Besten, H. den & G. Webelhuth (1987) Adjunction and Remnant Topicalization in the Germanic SOV-Languages, paper presented at the GLOW Conference, Venice.

Besten, H. den & G. Webelhuth (1990) "Stranding", in: G. Grewendorf & W. Sternefeld (eds.) *Scrambling and Barriers,* Amsterdam: Benjamins, 77-92.

Besten, H. den et al (1988) *Verb Raising, Extrapositie en de Deerde Constructie,* Report of Research Group, University of Amsterdam.

Brame, M.K. (1976) *Conjectures and Refutations in Syntax and Semantics*, New York: North-Holland.

Brandi, L. & P. Cordin (1989) "Two Italian Dialects and the Null Subject Parameter", in: O. Jaeggli & K. Safir (eds.) *The Null Subject Parameter*, Dordrecht: Kluwer, 111-142.

Brandner, E. (1991) *Zur Realisierung funktionaler Kategorien*, Master Thesis, University of Passau.

Bresnan, J. W. (1982) "Control and Complementation", *Linguistic Inquiry*, 13: 343-434.

Bresnan, J. et al (1982) "Cross-serial Dependencies in Dutch", *Linguistic Inquiry*, 13: 613-635.

Brown, E.K. & J.E. Miller (1980) *Syntax: A Linguistic Introduction to Sentence Structure*, London: Hutchinson.

Büring, D. & K. Hartmann (1994) *Doing the Right Thing - Extraposition as a Movement Rule*, Sprachwissenschaft in Frankfurt, Arbeitspapier 13.

Cardinaletti, A. (1986) "Topicalization in German: movement to Comp or base-generation in Top", *Groninger Arbeiten zur Germanistischen Linguistik*, 28: 202-231.

Cardinaletti, A. (1987) "Linksperiphere Phrasen in der deutschen Syntax", *Studium Linguistik*, 22: 1-30.

Cardinaletti, A. (1990) "Subject/object asymmetries in German null topic constructions and the status of specCP", in: J. Mascaró & M. Nespor (eds.) *Grammar in Progress*, Dordrecht: Foris, 75-84

Cardinaletti, A. (1992) On the Internal Structure of Pronominal DPs, paper presented at the 8th Comparative Germanic Syntax Workshop, Tromsoe.

Carlson, G.N. (1977) *Reference to Kinds in English*, Ph.D. Dissertation, University of Massachusetts.

Chomsky, N. (1955/75) *The Logical Structure of Linguistic Theory*, New York/London: Plenum Press.

Chomsky, N. (1957) *Syntactic Structures*, The Hague: Mouton.

Chomsky, N. (1965) *Aspects of the Theory of Syntax*, Cambridge, Mass.: MIT Press.

Chomsky, N. (1971) "Deep structure, surface structure and semantic interpretation", in: D. Steinberg & L. Jakobovits (eds.) *Semantics: An*

Interdisciplinary Reader in Philosophy, Cambridge, Mass.: MIT Press, 183-216.

Chomsky, N. (1977) "On Wh Movement", in: P. Culicover et al (eds.) *Formal Syntax*, New York: Academic Press, 71-132.

Chomsky, N. (1979) *Language and Responsibility*, Sussex: Harvester Press.

Chomsky, N. (1981) *Lectures on Government and Binding*, Dordrecht: Foris.

Chomsky, N. (1986a) *Barriers*, Cambridge, Mass.: MIT Press.

Chomsky, N. (1986b) *Knowledge of Language*, New York: Praeger.

Chomsky, N. (1994) *Bare Phrase Structure*, MIT Occasional Papers in Linguistics, 5.

Cinque, G. (1984) A'-bound pro vs. variable, ms. University of Venice.

Clyne, M. (1984) *Language and Society in the German-speaking Countries*, Cambridge: Cambridge University Press.

Comrie, B. & U. Frauenfelder (1992) "The verbal complex in Gurinerdeutsch", *Linguistics*, 30: 1031-1064.

Connors, K. & L. Nuckle (1986) "The Morphosyntax of French Personal Pronouns and the Acquisition/Learning Dichotomy", in: O. Jaeggli & C. Silva-Corvalàn (eds.) *Studies in Romance Linguistics*, Dordrecht: Foris, 391-419.

Cooper, K.E. (1988) *Word Order in Bare Infinitival Complement Constructions in Swiss German*, M.Sc. Thesis, University of Edinburgh.

Cooper, K. & E. Engdahl (1989) "Null Subjects in Zurich German", *Working Papers in Scandinavian Syntax. Special Issue on Comparative Germanic Syntax*, 44: 31-44.

Cooper, K. (1990) "Zurich German z and Verb Raising Constructions", in: E. Engdahl et al (eds.) *Parametric Variation in Germanic and Romance: Proceedings from a DYANA Workshop, September 1989*, Edinburgh Working Papers in Cognitive Science, 6: 67-86.

Cooper, K. (1994a) "On Pronominal Clitics in Zurich German", in: H. van Riemsdijk & L. Hellan (eds.), *Clitics: Their Origin, Status and Position*, Eurotyp Working Papers, Theme Group 8: Clitics, Vol. 6: 62-79.

Cooper, K. (1994b) "Null Subjects and Clitics in Zurich German", in: Z. Penner (ed.) *Topics in Swiss German Syntax*, Bern: Peter Lang.

Corver, N. & D. Delfitto (1993) Feature asymmetry and the nature of pronoun movement, ms. Tilburg University and University of Utrecht.

Czepluch, H. (1993) "Zur Doppel-Objekt-Konstruktion im Englischen und Deutschen", in: B. Haftka (ed.) *Was determiniert Wortstellung*, Opladen: Westdeutscher Verlag.

Czepluch, H. (1994) "Word Order in English: Old Problems and New Answers", *Groninger Arbeit zur Germanistischen Linguistik*, 37: 47-70.

Diesing, M. (1988) "Bare Plural Subjects and the Stage/Individual Contrast", in: M. Krifka (ed.) *Genericity in Natural Language. Proceedings of the 1988 Tübingen Conference*, University of Tübingen.

Diesing, M. (1990) "Verb Movement and the Subject Position in Yiddish", *Natural Language and Linguistic Theory*, 8: 41-79.

Diesing, M. (1992) *Indefinites*, Cambridge, Mass.: MIT Press.

Dieth, E. (1986) *Schwyzertütschi Dialäktschrift*, Aarau: Sauerländer.

Dowty, D.R. (1985) "On recent analyses of the semantics of control", *Linguistics and Philosophy*, 8: 291-331.

Drubig, H.B. (1992) "Zur Frage der grammatischen Repräsentation thetischer und kategorischer Sätze", in: J. Jacobs (ed.) *Informationsstruktur und Grammatik*, Opladen: Westdeutscher Verlag (Sonderheft 4, Linguistische Berichte), 142-195.

Eisenberg, P. (1989) *Grundriss der deutschen Grammatik*, Stuttgart: Metzler.

Engdahl, E. (1986) *Constituent Questions. The Syntax and Semantics of Questions with Special Reference to Swedish*, Dordrecht: Reidel.

Eroms, H.-W. (1984) "Indikativische periphrastische Formen mit *doa* im Bairischen als Beispiel für latente und virulente syntaktische Regeln", in: P. Wiesinger (ed.) *Beiträge der Zweiten Bayerisch-Österreichischen Dialektologentagung, Wien Sept 1983*, Göppingen: Kümmerle Verlag, 123-135.

Evers, A. (1975) *The Transformational Cycle in Dutch and German*, Ph.D. Thesis, University of Utrecht.

Evers, A. (1986) "Clause Union in French and German", *Groninger Arbeiten zur Germanistischen Linguistik*, 28: 170-201.

Fabb, N.A.J. (1984) *Syntactic Affixation*, Ph.D. Dissertation, MIT.

Fanselow, G. (1987) *Konfigurationalität*, Tübingen: Narr.

Fanselow, G. (1991) *Minimale Syntax*, Habilitation, University of Passau, published as *Groninger Arbeiten zur germanistischen Linguistik*, 34.

Fanselow, G. (1993) "Die Rückkehr der Basisgenerierer", *Groninger Arbeiten zur germanistischen Linguistik*, 36: 1-74.

Fretheim, T. (1978) "When Topic and Focus Coincide" in: K. Gregersen (ed) *Papers from the Fourth Scandinavian Conference of Linguistics*, Odense University Press, 247-254.

Frey, W. (1990) *Syntaktische Bedingungen für die Interpretation*, Doctoral Dissertation, University of Stuttgart.

Frey, W. (1993) *Syntaktische Bedingungen für die semantische Interpretation*, Berlin: Akademie Verlag.

Gärtner, H.-M. & M. Steinbach (1994) "Economy, Verb Second, and the SVO - SOV Distinction", *Working Papers in Scandinavian Syntax*, 53: 1-59.

Gazdar, G. (1982) "Phrase structure grammar", in: P. Jacobson & G.K. Pullum (eds.) *The Nature of Syntactic Representation*, Dordrecht: Reidel, 131-186.

Geilfuss, J. (1992) *Zur Kasuszuweisung beim AcI / Ist wollen ein Kontrollverb oder nicht?*, Arbeitspapiere des Sonderforschungsbereichs 340, University of Tübingen.

Gelderen, van E. (1993) *The Rise of Functional Categories*, Amsterdam: Benjamins.

Glaser, E. (1993) "Syntaktische Strategien zum Ausdruck von Indefinitheit und Partitivität im Deutschen (Standardsprache und Dialekt)", in: W. Abraham & J. Bayer (eds.) *Dialektsyntax*, Opladen: Westdeutscher Verlag (Sonderheft Linguistische Berichte, 5), 99-116.

Grewendorf, G. (1988) *Aspekte der deutschen Syntax*, Tübingen: Narr.

Grewendorf, G. (1989) *Ergativity in German*, Dordrecht: Foris.

Grewendorf, G. (1990) "Verb-Bewegung und Negation im Deutschen", *Groninger Arbeiten zur Germanistischen Linguistik*, 20: 57-125.

Grewendorf, G. (1991) "Kohärente Infinitive und Inkorporation", to appear in A. Steube (ed.) *Satzartigkeit von Infinitiven, Gerundien, small clauses*, Tübingen: Niemeyer.

Grewendorf, G. (1992) *German - A Grammatical Sketch*, Sprachwissenschaft in Frankfurt, Arbeitspapier 8.

Grewendorf, G. & J. Sabel (1994) "Long Scrambling and Incorporation", *Linguistic Inquiry*, 25: 263-308.

Haas, W. (1981) *Das Wörterbuch der schweizerdeutschen Sprache. Versuch über eine nationale Institution*, Frauenfeld.

Haegeman, L. (1991) "On the relevance of clitic placement for the analysis of subject-initial Verb-Second in West Flemish", *Groninger Arbeiten zur Germanistischen Linguistik*, 34: 29-66.

Haegeman, L. (1992) *Theory and Description in Generative Syntax. A case study in West Flemish*, Cambridge: Cambridge University Press.

Haegeman, L. (1993) "Object clitics in West Flemish and the identification of A/A' positions", *Geneva Generative Papers*, 1: 1-30.

Haegeman, L. (1994) *Introduction to Government and Binding Theory. Second Edition*, Oxford: Blackwell.

Haegeman, L. & Riemsdijk, H. van (1986) "Verb Projection Raising, Scope, and the Typology of Rules Affecting Verbs", *Linguistic Inquiry*, 17: 417-466.

Haider, H. (1984) "Topic, focus & V-second", *Groninger Arbeiten zur Germanistischen Linguistik*, 25: 72-120.

Haider, H. (1987) *Deutsche Syntax - Generativ. Parameter der Deutschen Syntax*, Habilitation, University of Vienna.

Haider, H. (1988) *Studies on Missing Subjects*, Working Papers of the Department of Linguistics, University of Stuttgart, 1.

Haider, H. (1988a) "Pro pro-Drop Drop", *Wiener Linguistische Gazette*, 42/43: 57-77.

Haider, H. (1989) "Theta-Tracking Systems - Evidence from German", in: L. Marácz. & P. Muysken (eds.) *Configurationality: The Typology of Asymmetries*, Dordrecht: Foris, 185-206.

Haider, H. (1993) *Deutsche Syntax - generativ*, Tübingen: Narr.

Hale, K. (1983) "Warlpiri and the grammar of non-configurational languages", *Natural Language and Linguistic Theory*, 1: 5-47.

Hauenschild, C. (1988) "GPSG and German Word Order", in: U. Reyle & C. Rohrer (eds.) *Natural Language Parsing and Linguistic Theories*, Dordrecht: Reidel, 411-431.

Hetland, J. (1992) *Satzadverbien im Fokus*, Doctoral Dissertation, University of Wuppertal.

Höhle, T.N. (1978) *Lexikalistische Syntax*, Tübingen: Niemeyer.

Höhle, T.N. (1982) "Explikationen für "normale Betonung" und "normale Wortstellung", in: W. Abraham (ed.) *Satzglieder im Deutschen*, Tübingen: Narr, 75-153.

Höhle, T.N. (1991) Projektionsstufen bei V-Projektionen, ms. University of Tübingen.

Höhle, T.N. (1993) Verbstellung und asymmetrische Koordination, ms. University of Tübingen.

Hoekstra, J. & L. Marácz (1989) "On the Position of Inflection in West-Germanic", *Working Papers in Scandinavian Syntax. Special Issue on Comparative Germanic Syntax*, 44: 75-88.

Huang, C.-T. (1984) "Remarks on Empty Categories in Chinese", *Linguistic Inquiry*, 18: 321-337.

Huber, W. (1980) *Infinitivkomplemente im Deutschen*, Doctoral Dissertation, University of Berlin.

Jackendoff, R. (1977) *X' Syntax: A Study of Phrase Structure*, Cambridge, Mass.: MIT Press.

Jacobs, J. (1983) *Fokus und Skalen: Zur Syntax und Semantik der Gradpartikeln im Deutschen*, Tübingen: Niemeyer.

Jacobs, J. (1984) "The syntax of bound focus in German", *Groninger Arbeiten zur Germanistischen Linguistik*, 25: 172-200.

Jacobson, P. (1992) "The Lexical Entailment Theory of Control and the *Tough*-Construction", in: I.A. Sag & A. Szabolcsi (eds.) *Lexical Matters*, Stanford: CSLI Lecture Notes 24, 269-300.

Janda, R.D. (1985) "Echo-Questions are Evidence for What?", *Papers from the 21st Regional Meeting of the Chicago Linguistic Society*, 171-188.

Jaspers, D. (1989) "A Head Position for Dutch Clitics or: Wilma, Wim and Wackernagel", in: D. Jaspers et al (eds.) *Sentential Complementation and the Lexicon*, Dordrecht: Foris, 241-252.

Kaan, E. (1992) *A Minimalist Approach to Extraposition*, M.A. Thesis, University of Groningen.

Kaplan, R. & A. Zaenen (1988) Functional Uncertainty and Functional Precedence in Continental West Germanic, paper presented at WWWS, Vienna, August 1988.

Kayne, R. (1975) *French Syntax*, Cambridge, Mass.: MIT Press.

Kayne, R. (1993) The Antisymmetry of Syntax, ms. City University New York.

Keller, R.E. (1961) *German Dialects*, Manchester: Manchester University Press.

Kiparsky, P. (1989) "Origins of Germanic Syntax", *Proceedings of the 1989 East Coast Indo-European Conference*, Harvard University.

Klein, E. & I.A. Sag (1985) "Type-driven Translation", *Linguistics and Philosophy*, 8: 163-201.

Knoll, S. (1992) *Word Order within Infinitival Complements in Swiss German*, M.A. Thesis, McGill University, Montreal.

Koopman, H. & D. Sportiche (1988) Subjects, ms UCLA.

Koster, J. (1975) "Dutch as an SOV Language", *Linguistic Analysis*, 1: 111-136.

Koster, J. (1978) *Locality Principles in Syntax*, Dordrecht: Foris.

Koster, J. (1986) *The Relation between Pro-drop, Scrambling and Verb Movement*, Groningen Papers in Theoretical and Applied Linguistics, 1.

Koster, J. & R. May (1982) "On the Constituency of Infinitives", *Language*, 58: 116-143.

Kratzer, A. (1988) Stage-Level and Individual-Level Predicates, ms. University of Massachusetts, Amherst.

Kroch, A.S. & B. Santorini (1991) "The Derived Constituent Structure of the West Germanic Verb Raising Construction", in: R. Freidin (ed.) *Principles and Parameters in Comparative Grammar*, Cambridge, Mass.: MIT Press, 269-338.

Kuno, S. (1976) "Subject, Theme, and the Speaker's Empathy - A Reexamination of Relativization Phenomena", in: C.N. Li (ed.) *Subject and Topic*, New York: Academic Press, 417-444.

Lasnik, H. & M. Saito (1992) *Move alpha*. Cambridge, Mass.: MIT Press.

Lenerz, J. (1977) *Zur Abfolge nominaler Satzglieder im Deutschen*, Tübingen: Narr.

Lenerz, J. (1993) "Zur Syntax und Semantik deutscher Personalpronomina", in: M. Reis (ed.) *Wortstellung und Informationsstruktur*, Tübingen: Niemeyer, 119-153.

Lötscher, A. (1978) "Zur Verbstellung im Zürichdeutschen und in anderen Varianten des Deutschen", *Zeitschrift für Dialektologie und Linguistik*, 45: 1-29.

Lötscher, A. (1981) "Abfolgeregeln für Ergänzungen im Mittelfeld", *Deutsche Sprache*, 1: 44-60.

Lötscher, A. (1983) *Schweizerdeutsch. Geschichte, Dialekte, Gebrauch*, Frauenfeld/Stuttgart: Huber.

Maling, J. & A. Zaenen (1977) "TOP-Position", paper presented to the Annual Meeting of the Linguistic Society of America, Philadelphia.

Maling, J. & A. Zaenen (1981) "Germanic word order and the format of surface filters", in: F. Heny (ed.) *Binding and Filtering*, London: Croom Helm, 255-278.

Müller, G. (1993) *On Deriving Movement Type Asymmetries*, Doctoral Dissertation, University of Tübingen.

Müller, G. & W. Sternefeld (1990) *Improper Movement*, Arbeitspapier Fachgruppe Sprachwissenschaft, University of Konstanz, 26.

Müller, G. & W. Sternefeld (1993) "Improper Movement and Unambiguous Binding", *Linguistic Inquiry*, 24: 461-507.

Newmeyer, F.J. (1983) *Grammatical Theory. Its Limits and Its Possibilities*, Chicago: University of Chicago Press.

Nübling, D. (1992) *Klitika im Deutschen. Schriftsprache, Umgangssprache, alemannische Dialekte*, Tübingen: Narr.

Öhlschläger, G. (1989) *Zur Syntax und Semantik der Modalverben des Deutschen*, Tübingen: Niemeyer.

Penner, Z. (1991) "Pronominal Clitics in Bernese Swiss German and their Structural Position. Jakob Wackernagel and Language Acquisition", in: H. van Riemsdijk & L. Rizzi (eds.) *Clitics and their Hosts. Proceedings of the ESF Colloquium*, University of Geneva, 253-268.

Penner, Z. & T. Bader (1992) *Issues in the Syntax of Subordination. A Comparative Study of the Complementizer System in Germanic, Romance, and Semitic Languages with Special Reference to Bernese Swiss German*, University of Bern.

Platzack, C. (1987) "The Scandinavian Languages and the Null-Subject Parameter", *Natural Language and Linguistic Theory*, 5: 377-401.

Platzack, C. (1990) "On empty theta-marked subjects in Romance and Germanic languages", in: J. Mascaró & M. Nespor (eds.) *Grammar in Progress*, Dordrecht: Foris, 311-342.

Platzack, C. & A. Holmberg (1989) The Role of AGR and Finiteness, paper presented at the GLOW Conference Utrecht.

Pollock, J.-Y. (1989) "Verb Movement, Universal Grammar, and the Structure of IP", *Linguistic Inquiry*, 20: 365-424.

Postal, P.M. (1974) *On Raising: One Rule of English Grammar and Its Theoretical Implications*, Cambridge, Mass.: MIT Press.

Postal, P.M. & G.K. Pullum, (1978) "Traces and the description of English complementizer contraction", *Linguistic Inquiry*, 9: 1-29.

Postal, P.M. & G.K. Pullum (1988) "Expletive Noun Phrases in Subcategorized Position", *Linguistic Inquiry*, 19: 635-670.

Pullum, G.K. (1981) "The Category Status of Infinitival *to*", *Working Papers in Linguistics, University of Washington*, 6: 55-72.

Pullum, G.K. & G. Gazdar (1982) "Natural Languages and Context-Free Languages", *Linguistics and Philosophy*, 4: 469-504.

Reape, M. (1990) "Getting Things in Order", *Proceedings of the Workshop on Discontinuous Constituents*, Tilburg, 125-137.

Reis, M. (1976) "Reflexivierung in deutschen A.c.I.-Konstruktionen. Ein transformationsgrammatisches Dilemma", *Papiere zur Linguistik*, 9: 5-82.

Reis, M. (1980) "On Justifying Topological Frames: 'Positional Field' and the Order of Nonverbal Constituents in German", *DLRYV Revue de Linguistique* 22/23: 59-85.

Reis, M. (1985) "Satzeinleitende Strukturen im Deutschen. Über COMP, Haupt- und Nebensätze, w-Bewegung und die Doppelkopfanalyse", in: W. Abraham (ed.) *Erklärende Syntax des Deutschen*, Tübingen: Narr, 271-311.

Reis, M. (1987) "Die Stellung der Verbargumente im Deutschen", in: I. Rosengren (ed) *Sprache und Pragmatik. Lunder Symposium 1986*, Stockholm: Almqvist & Wiksell International, 139-178.

Renzi, L. (1991) Two Types of Clitics in Natural Languages, ms. University of Padova.

Renzi, L. & L. Vanelli (1982) "I Pronomi Soggetto in Alcune Varietà Romanze", *Scritti Linguistici in Onore di Giovan Battista Pellegrini*, Pisa, 121-145.

Riemsdijk, H. van (1989) "Movement and Regeneration", in: P. Beninca (ed.) *Dialect Variation and the Theory of Grammar*, Dordrecht: Foris, 105-136.

Riemsdijk, H, van (1989b) "Swiss Relatives", in: D. Jaspers et al (eds.) *Sentential Complementation and the Lexicon*, Dordrecht: Foris, 343-354.

Rizzi, L. (1982) *Issues in Italian Syntax*, Dordrecht: Foris.

Rizzi, L. (1986) "Null Objects in Italian and the Theory of *pro*" *Linguistic Inquiry*, 17: 501-557.

Rizzi, L. (1991) Proper Head Government and the definition of A positions, paper presented at the GLOW conference Leiden.

Rohrbacher, B. (1994) *The Germanic VO Languages and the Full Paradigm: A Theory of V to I Raising*, Ph.D. Dissertation, University of Massachusetts, Amherst.

Rosengren, I. (1992) "Zum Problem der kohärenten Verben im Deutschen", in: P. Suchsland (ed.) *Biologische und soziale Grundlagen der Sprache*, Tübingen: Niemeyer, 265-297.

Ross, J.R. (1982) Pronoun Deleting Processes in German, paper presented at the annual meeting of the Linguistic Society of America, San Diego.

Russ, C.V.J. (1990) *The Dialects of Modern German. A Linguistic Survey*, London: Routledge.

Sabel, J. (1993) *W-Infinitive, Nominativsubjekte und das Wh-Criterion*. Sprachwissenschaft in Frankfurt, Arbeitspapier 11.

Sabel, J. (1994) A Unitary Account of Long Scrambling and Clitic Climbing in Restructuring Contexts: Parallels between German, Polish and Spanish, ms. University of Frankfurt.

Safir, K. (1986) "Subject Clitics and the NOM-Drop Parameter", in: H. Borer (ed.) *The Syntax of Pronominal Clitics*, New York: Academic Press, 333-356.

Sag, I. (1976) "A logical theory of verb phrase deletion", *Papers from the Twelfth Regional Meeting of the Chicago Linguistic Society*, 533-547.

Sasse, H.-J. (1987) "The Thetic/Categorical Distinction Revisited", *Linguistics*, 25: 511-580.

Schobinger, V. (1984) *Zürichdeutsche Kurzgrammatik*, Zürich.

Schobinger, V. (1986) *Der Ääschme weit en fall nöd lööse*, Bamberg: aku-Fotodruck GmbH.

Schoenenberger, M. (1989) *Constituent Order in the VP: Verb Raising and Verb Projection Raising*, M.A. Thesis, University of Geneva.

Shieber, S.M. (1985) "Evidence against the Context-freeness of Natural language", *Linguistics and Philosophy*, 8:333-343.

Speas, P. (1991) Functional Heads and Inflectional Morphemes, paper presented at the GLOW Conference Leiden.

Sprouse, R.A. & B. Vance (1993) An Explanation for the Loss of Null Subjects in Certain Romance and Germanic Languages, paper presented at the GLOW Conference Lund.

Stechow, A. von (1984) "Gunnar Bech's government and binding theory. GB's GB theory", *Linguistics*, 22: 225-241.

Stechow, A. von (1990) "Status Government and Coherence in German", in: G. Grewendorf & W. Sternefeld (eds.) *Scrambling and Barriers*, Amsterdam: Benjamins, 143-198.

Stechow, A. von (1992) "Kompositionsprinzipien und grammatische Struktur", in: P. Suchsland (ed.) *Biologische und soziale Grundlagen der Sprache*, Tübingen: Niemeyer.

Stechow, A. von & W. Sternefeld (1988) *Bausteine Syntaktischen Wissens*, Opladen: Westdeutscher Verlag.

Stechow, A.von & S. Uhmann (1986) "Some Remarks on Focus Projection", in: W. Abraham & S. de Meij (eds.) *Topic, Focus, and Configurationality*, Amsterdam: Benjamins, 296-320.

Steedman, M. (1994) Talk given at the Symposium "25 Years of Cognitive Science at the University of Edinburgh", July 12.

Steedman, M. (1985) "Dependency and Coordination in the Grammar of Dutch and English", *Language*, 61: 523-568.

Sternefeld, W. (1982) *Konfigurationelle und nicht-konfigurationelle Aspekte einer modularen Syntax des Deutschen*, Doctoral Dissertation, University of Konstanz.

Sternefeld, W. (1985) "Deutsch ohne grammatische Funktionen: Ein Beitrag zur Rektions- und Bindungstheorie", *Linguistische Berichte*, 99: 394-439.

Sternefeld, W. (1989) *Beheaded Barriers*, Arbeitspapier 14, Fachgruppe Sprachwissenschaft, University of Konstanz.

Suchsland, P. (1987a) "Zu Syntax und Semantik von lassen", *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung*, 40: 652-667.

Suchsland, O. (1987b) "Zum AcI und zu verwandten Konstruktionen im Deutschen", *Deutsch als Fremdsprache*, 24: 321-329.

Szakacs, I. (1988) *Der schweizerdeutsche Relativsatz und das resumptive Pronomen*, Master Thesis, University of Passau.

Tappe, H.T. (1984) "On infinitival clauses without COMP", in: W. de Geest & Y. Putseys (eds.) *Sentential Complementation*, Dordrecht: Foris, 227-238.

Thiersch, C. (1978) *Topics in German Syntax*, Ph.D. Dissertation, MIT.

Travis, L. (1984) *Parameters and Effects of Word Order Variation*, Ph.D. Dissertation, MIT.

Uszkoreit, H. (1986a) "Constraints on order", *Linguistics*, 24: 883-906.

Uszkoreit, H. (1986b) "Linear Precedence in Discontinuous Constituents: Complex Fronting in German", Stanford: CSLI Report 86-47.

Uszkoreit, H. (1987) *Word Order and Constituent Structure in German*, Stanford: CSLI Lecture Notes 8.

Vikner, S. & B. D. Schwartz (1991) "The Verb always leaves IP in V2 Clauses", to appear in: A. Belletti & L. Rizzi (eds.) *Parameters and Functional Heads*, Oxford: Oxford University Press.

Webelhuth, G. (1989) *Syntactic Saturation Phenomena and the Modern Germanic Languages*, Doctoral Dissertation, University of Massachusetts, Amherst.

Weber, A. (1964) *Zürichdeutsche Grammatik*, Zürich: Hans Rohr.

Wechsler, S. (1990) "Verb Second and Illocutionary Force in Swedish", in: E. Engdahl et al (eds.) *Parametric Variation in Germanic and Romance: Proceedings from a DYANA Workshop, September 1989*, Edinburgh Working Papers in Cognitive Science, 6: 229-244..

Weerman, F. (1989) *The V2 Conspiracy*, Dordrecht: Foris.

Werlen, I. (1988) "Swiss German Dialects and Swiss Standard High German", in: P. Auer & A. di Luzio (eds.) *Variation and Convergence. Studies in Social Dialectology*, Berlin: de Gruyter, 94-124.

Wilder, C. (1988) "On the German Infinitival Marker *zu* and the Analysis of Raising Constructions", *Lingua*, 75: 115-175.

Wilder, C. (1989) *The Syntax of German Infinitives*, PhD. Dissertation, University College London.

Wolfensberger, H. (1967) *Mundartwandel im 20. Jahrhundert*, Frauenfeld: Huber.

Wyngaerd, G. van den (1989) "Verb Projection Raising and the Status of Infinitival Complements", in: D. Jaspers et al (eds.) *Sentential Complementation and the Lexicon*, Dordrecht: Foris, 423-438.

Zubin, D.A. & K.-M. Köpcke (1985) "Cognitive Constraints on the Order of Subject and Object in German", *Studies in Language*, 9: 77-107.

Zwart, C.J.-W. (1992a) "Subject-initial Verb Second in West Flemish: a Reply to Haegeman", *Groninger Arbeiten zur Germanistischen Linguistik*, 35: 72-91.

Zwart, C.J.-W. (1992) SOV Languages are Head Initial, paper presented at the 8th Comparative Germanic Syntax Workshop, Tromsoe.

Zwart, C.J.-W. (1993) *Dutch Syntax: A Minimalist Approach*, Doctoral Dissertation, University of Groningen.

Zwicky, A.M. & N. Levin (1980) "You don't have tó", *Linguistic Inquiry*, 11: 631-636.