5. Syntactic and Morphological Manifestations of Focus

In this section we will discuss the various ways how focus is marked by syntactic and morphological constructions, or more generally, how it interferes with syntax.

5.1 Focus Positions

5.1.1 Preverbal Focus Positions

A number of languages are known to have preverbal focus positions. The best-known languages is Hungarian; the relevant facts have been discussed in Szabolcsi (1981), É. Kiss (1981), Horvath (1986), É. Kiss (1994). Another language of this type is Basque (cf. De Rijk (1978) and most recently Ortiz de Urbina (1995)). In this section I list some of the known facts and some of the theories currently under discussion.

5.1.1.1 Basic facts

Constituents with contrastive or exhaustive focus are in a preverbal position (the "F position") . In sentences without a focus, the preverbal position is left empty (examples: É. Kiss 1981).

(1)   a.   PIROSKA szereti a rock and rollt.
         Piroska loves the rock and roll. ACC
         'It is Piroska who loves rock and roll.'

      b.   A ROCK AND ROLLT szereti Piroska.
         'It is rock and roll that Piroska loves.'

      c.   Szereti Piroska a rock and rollt. / Szereti rock and rollt Piroska.
         'Piroska loves rock and roll.'

If the focus extends over more than one argument, then only one argument ends up in the focus position (equivalence to focus projection) (examples: É. Kiss 1981).

(2)   [What are you doing?]
      A TELEVÍZIÓBAN nézzük a híradót.
      the television-in   watch.1PL the news. ACC
      'We are watching the news on television'

Szabolcsi (1981) has the following example, which suggests broad focus:

(3)   Nem [Péter] aludt a padlón, hanem [a házigazda] költözött szállodába.
      not Peter slept on floor, but the master-of-the-house moved to a hotel

É. Kiss (1994) observes that parts of idioms can move to the focus position if the idiom itself is in focus:

(4)   a.   Mari-t cso -be húzt-ák
         Mary-ACC tube-into pulled-they
         'They pulled Mary into the tube' (= they tricked Mary)

If the focus is contained in an argument, then it is the whole argument that moves to the focus position (data from É. Kiss 1981), cf. also Kenesei (1993):

(5)   A PIROS csíkos ruhámat vegyem fel, vagy a KÉK csíkos ruhámat (vegyem fel)?
      the red striped dress-my.ACC put.SUBJ.1SG or the blue striped dress
      'Shall I put on my red striped dress or shall I put on my blue striped dress?'

Movement into the focus position is a WH-movement, as it can be applied cyclically (data: É. Kiss 1994).

(6)   [AZ ING-ET$_i$] kér-né-m   [t$_i$ hogy [HOLNAP-RA] vasal-d ki t$_i$]
      the shirt-ACC request-COND-1SG that tomorrow-for iron-IMPERAT.2SG PART
      'It is the shirt that I would request that you iron for tomorrow.'

The intermediate focus positions can be filled, therefore cyclical focus movement presumably does not use intermediate focus positions, but Spec-CP [even this must be allowed to be doubly filled!]

We observe subjacency effects; no focus movement from within a NP:

(7)   *JANOS-T$_i$ hallott-am [a kötvetelés [t$_i$ hogy bocsás-s-ák el t$_i$]]
      John-ACC heard-I the demand that they fire
      '*It was John who I heard the demand that they fire'

See É. Kiss 1994 for further syntactic properties of focus movement.

Certain verbs, typically expressing existence, require that a constituent is in focus (e.g. for 'lie', 'can be found', 'mean', 'represent', 'constitute', 'form', 'cost', 'look', 'treat' -- cf. É. Kiss 1994) -- cf. verbs expressing existence and subject accent in English.

(8)   a.   A ház NAGY ÉRTÉKET képvisel
         the house great value-ACC represents
         'The house represents a great value'

      b.   [A HÁZ [képvisel nagy értéket
         'it is the house that represents a great value'

      c.   *képvisel a ház nagy értéket.

Other verbs, expressing mainly psychological states, allow for a focus item only in case of contrastive focus (examples: verbs for 'detest', 'hate', 'like', 'be familiar with', 'know' Cf. É. Kiss 1994.

5.1.1.2 Prefixes

Many verbs have prefixes with relatively general aspectual and directional meanings, or predicative NPs, that can occur in the F position without being focused. The constituent in the F position forms a close phonological unit with the verb (examples: É. Kiss 1981) (Focus projection from the directional argument?)

(9) a. El ment János.
away went John   'John went away'

b. Moziba ment János.
cinema-to went John   'John went to the cinema

c. Orvos lesz János.
doctor becomes John   'John becomes a doctor'

d. Meg ette János az ebédet.
PERF ate John the lunch.ACC   'John has eaten up the lunch'

e. Le ment János a lépcso n.
down went John the stairs   'John went down the stairs'

It seems that, in general, strong stress is required in order to enforce a focus on the preverbal constituent (in the following example, *János* is in a topic position):

(10) János LE ment a lépcso n, nem pedig FEL (ment)
John down went the stairs not however up went
'Down the stairs went John and not up the stairs'

The directional and aspectual particles need not occur in the preverbal position. Particle position is associated with aspect (É. Kiss 1981); cf. also É. Kiss 1994 for further discussion.

(11) a. Ment le János a lépcso n, amikor elesett.
went down John the stairs when fell-he
'John was going down the stairs when he fell' (imperfective)

b. Le ment János a lépcso n, amikor elesett.
'John had gone down the stairs when he fell' (perfective)

c. JÁNOS ment le a lépsco n, amikor a tolvaj kiosont.
John went down the stairs when the thief sneaked-out
'It was John who was going/had gone downstairs when the thief sneaked out' (ambiguous)

5.1.1.3 Focus Particles

Contrastive negation forms a constituent with the item in focus:

(12) [NEM JÁNOS] hívta fel Juliská-t.
not John called up Julie-ACC
'It was not John who called up Julie (but someone other than John)'

The constituent *nem János* must occur in F position. But É. Kiss (1994) also discusses cases with a negation with wider scope. (Notice that this is also a case with multiple focus):

(13) Nem [JÁNOS hívta fel MARI-T] hanem [MARI hívta fel JÁNOS-T]
not John called up Mary but Mary called up John.

The exclusive particle *csak* 'only' either precedes the item in focus, or follows the verb (!), cf. É. Kiss 1981:

(14) a. Csak JÁNOS hiányzott az iskolából.
'Only John was absent from school'

b. JÁNOS hiányzott csak az iskolából.
'Only John was absent from school'

A *csak*-phrase cannot remain in situ (cf. É. Kiss 1995):

(15) a. CSAK HÁRMAN néztek meg két filmet.
only three saw PERF two films
'Only three (persons) saw two films'

b. *Két filmet meg-néztek CSAK HÁRMAN.

But we have cases like the following with multiple focus operators:

(16) CSAK KÉT FILMET láttak CSAK HÁRMAN
'It was only two films that only three persons saw'

É. Kiss (1995) analyzes this case not as a case in which one *csak* -phrase remains in situ, but as a case of recursive focus phrases (FP) formation:

(17) [FP csak két filmet_i [F láttak_j [FP csak hárman_k [F t_j [VP t_i t_j t_k]]]]]

An argument against the simpler hypothesis that *csak hárman* simply remained in situ is that the first operator has necessarily scope over the second, which is not the case for wh-phrases that are left in situ.

With episodic predicates, a *csak*-phrase can affect a constituent containing the verb:

(18) János csak KÉT KÖNYVET kölcsönzott ki.
John only two books borrowed PREF
(i) John borrowed only two books.
(ii) The only thing John did was borrow two books (then he went home).

É. Kiss (1995) sees a structural difference between these two readings. In (ii), *csak* forms a constituent with the rest of the sentence, an expression denoting an event ('borrowing two books'):

(19) (ii) János [FP csak [FP két könyvet kölcsönzött ki]].

Stative sentences do not refer to events and do not allow for this structure:

(20) János csak marit ismeri.
    (i) John knows only Mary.
    *(ii) John only knows Mary (but no other state/activity is true for him)

5.1.1.4 Topical constituents and Quantifiers

Topical constituents occur in sentence-initial position (É. Kiss 1981). They are unstressed.

(21) a. Piroska [F A ROCK AND ROLLT] szereti.
      'As for Piroska, she loves rock and roll'

    b. A rock and rollt [F PIROSKA] szereti.
      'As for rock and roll, it is Piroska who loves it.'

    c. Piroska a rock and rollt [F] SZERETI.
      'As for Piroska, as for rock and roll, she loves it.'

Topics can be contrastive, marked by a Rise:

(22) Piroska [F] szereti a rock and rollt.
    'As for Piroska, she loves rock and roll (but other persons may not love it)'

Quantifiers are a particularly interesting category. Some quantifiers, like universal quantifiers, cannot occur in focus position (cf. a), and can occur in topic position only when contrastive (cf. b). They typically occur between the topic constituents and the focus constituent (c).

(23) a. *János MINDEN KÖNYVET olvasott el a vizsgára.
      Janos every book.ACC read PERF the exam on
      'Janos read every book for the exam'

    b. Minden könyvet JÁNOS olvasott el a vizsgára.
      'As for reading all the books, it is John who read them for the exam'

    c. János [Q minden könyvet] [F el] olvasott a vizsgára.

More than one quantifier can occur in the Q field:

(24) János [Q mindig mindent alaposan] [F el] olvas.
    John always everything thoroughly PERF read
    'John always reads everything thoroughly'

But non-universal quantifiers can occur in the focus position (data: É. Kiss 1981):

(25) a. János [Q sok könyvet] [F el] olvasott.
      'John read many books'

    b. János [F SOK KÖNYVET] olvasott el.

    c. Sok könyvet [F JÁNOS] olvasott el.

And downward-entailing quantifiers such as 'few', 'seldom', 'hardly', 'badly' have to occur in focus position (cf. É. Kiss 1994). (See Szabolcsi (1995) for a discussion of different quantifiers.

5.1.1.5 Constituent questions

Constituent question words occur in the preverbal position as well (example: Szabolcsi 1981).

(26) Ki aludt a padlón?
    who slept on floor   'Who slept on the floor?'

Question words in focus position are not necessarily understood as requesting an exhaustive answer (cf. É. Kiss 1981).

The question word *miért* 'why/what for' is special, as it need not be in focus position in the 'why' meaning (É. Kiss 1994):

(27) a. [F Miért] küldte el János Mari-t a bolt-ba?
      why sent away John Mary-ACC the shop-to?
      'Why/for what did John send Mary to the shop?'

      Kenyér-ért. 'For bread.' / Mert Mari éhes volt.
      'Because Mary was hungry'

    b. Míert [F MARIT] küldte el János a boltba?

      *Kenyér-ért. 'For bread.' / Mert Mari éhes volt.
      'Because Mary was hungry'

In multiple constituent questions, one question word moves to the focus position, the others are left-adjoined to the VP (cf. É. Kiss 1994):

(28) a. Mari ki-nek [F mi-t] adott el?
      Mary who-DAT what-ACC sold PERF?
      'What did Mary sell to whom?'

    b. Mari mi-t [F ki-nek] adott el?
      'To whom did Mary sell what?'

É. Kiss (1993) argues that the adjoined wh-element has the function of a quantifier, and hence is in Q-position. (a) means: For all persons x (of a contextually given set), tell me what did Mary sell to x? In case of a symmetric complex wh-question, one wh-element remains in situ after the verb:

3

(29) [F Ki] vett el ki-t?
 who married PERF who? (talking about a particular wedding:) Who married whom?

5.1.1.6 Semantic and pragmatic effects

As mentioned above, expressions in focus position have a contrastive and/or exhaustive function (examples É. Kiss 1981):

(30) a. Lo tt gólt Puskás a meccsen
  scored goal.ACC Puskás the match-at
  'Puskás scored a goal at the match'

 b. [F PUSKÁS] lo tt gólt a meccsen
  'It is Puskás (and nobody else) who scored a goal at the match'

(31) a. [T János] [F meg] keres 10.000 Ft-ot havonta.
  John PERF earns 10.000 Forint.ACC monthly
  'John earns (at least) 10000 Forint monthly'

 b. [T János] [F 10.000 Ft-ot] keres (meg) havonta.
  'John earns (exactly) 10000 Forint monthly'

Indefinites in focus position have wide scope, presumably as a consequence of exhaustivity:

(32) a. [Tc Mindenki] [F egy filmet] nézett meg.
  everyone one film.ACC saw PERF
  'There is one film that everyone saw'

 b. [Q Mindenki] [F meg] nézett egy filmet.
  'Everyone went to see a film'

But adverbials don't have the exhaustive reading. The following example does not exclude that other adverbials could be used to form a true sentence.

(33) Mari SZÉPEN vasalta ki az inget 'Mary ironed the shirt beautifully'

[É. Kiss, 1995 #6490] discusses the contrast between "focus operator" focus (which involves uniqueness) and "information focus" (which is the focus that signals an answer to a question). They may differ:

(34) a. Hova tettél kónyveket?
  where put-you books?
  'Where did you put books?'

 b. [F A POLCRA] tettem könyveket.
  the shelf-on put-I books
  'It was the shelf that I put books'

 c. [F]Tettem könyveket A POLCRA.
  'I put books on the shelf (among other places)'

[It seems from the examples given that the information focus is always sentence final.]

We find focus projection for information focus:

(35) [Where did Peter put down the book?] / [What did Peter do?] / [What happened?]
 Péter le-tette a könyvet A POLCRA
 Peter down-put the book the shelf-on

5.1.2 Theoretical Analyses

5.1.2.1 É. Kiss 1981

A number of analyses have been proposed to account for the sentence structure in Hungarian. É. Kiss (1981) proposes the following structure:

(36)
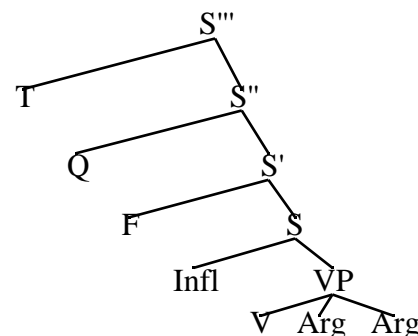
The arguments (and adjuncts) of a verb start out from within a VP, which is supposed to have a flat structure, as order within the VP arguably does not matter. These constituents can move to the T(opic) position, the Q(antifier) position, the F(ocus) position. That is, the constituents in T, Q and F are not base-generated there, but moved into this position. (It is unclear in this representation why T and Q can be filled by more than one constituent, but F can be filled by just one constituent). The status of Q as a separate node is unclear; alternatively, Q(uantifiers) may be adjoined to an S -phrase: [s Q [s F S]]. Verb inflection lowers to V [alternatively, we may assume that V raises to Infl].

The movement to T, Q, F is wh-movement. It leaves a case-marked trace that triggers agreement (subject agreement, object agreement) with the verb, and it is cyclic:

(37) [$_T$ Én] [$_F$A MÁSIKAT$_i$] [$_S$szeretném,] ha [$_F$ t$_i$] [$_S$választanád t$_i$]
I the ohther.ACC   would-like if   chose-you.DEF
'It is the other one that I would like if you chose' (cf. *vâlasztanál* 'you chose (something)')

Movement cannot be into an argument position (within the VP), only to T, Q, or F:

(38) a. [$_T$ Anyám] [$_F$azt] [$_S$akarta,] hogy [$_T$a tésztát] [$_F$VAJJAL$_i$] [$_S$süssem t$_i$]
mother-my it.ACC wanted that the cake.ACC butter-with bake-I
'Mother wanted me to make the cake with butter'

b. [$_T$ Anyám] [$_F$VAJJAL$_i$] akarta, hogy [$_T$a tésztát] [$_F$t$_i$] [$_S$süssem t$_i$]
'It was with butter that mother wanted me to make the cake'

c. *[$_T$Anyám] [$_F$azt] [$_S$akarta vajjal$_i$] hogy [$_T$a tésztát] [$_F$t$_i$] [$_S$süssem t$_i$]

5.1.2.2 Horvath 1986

Horvath (1981, 1986) proposes the following structure:

(39)
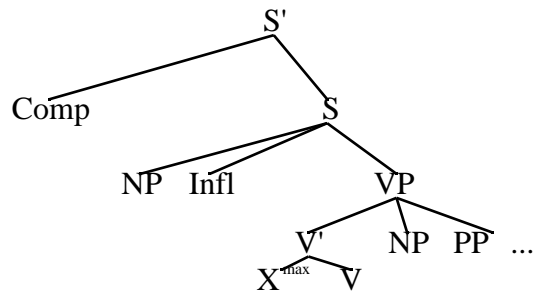
Constituents in focus move into the X^{max}-position. A problem of this analysis is that it involves lowering of constituents, which leads to a configuration in which the antecedent does not c-command its traces. Horvath argues that this is possible, as the trace will later be bound by LF-movement. See also Farkas (1986) for a treatment of such unbounded dependencies in HPSG. Horvath (1995) gives up this position, but still assumes that focus in Hungarian is assigned by the verb (which may be moved to a distinct functional projection, as in the proposal by Brody discussed below.)

More importantly, Horvath (1986, 1995) . distinguishes languages according to a focus parameter: Focus-in-situ languages can assign focus freely to any category (example: English). Languages with focus position can assign focus to constituents in a particular position only. Focus is always assigned by a particular category, like V^0, I^0, or C^0. Focus assignment in some languages then appears as similar to case

assignment in other languages (for example, in English I^0 assigns nominative case, in Hungarian, it assigns Focus.

5.1.2.3 Analysis: Brody 1990

Brody (1990) assumes a special focus phrase (FP). A focus constituent is moved to the specifier of this phrase, and the verb is moved to its head.

(40)
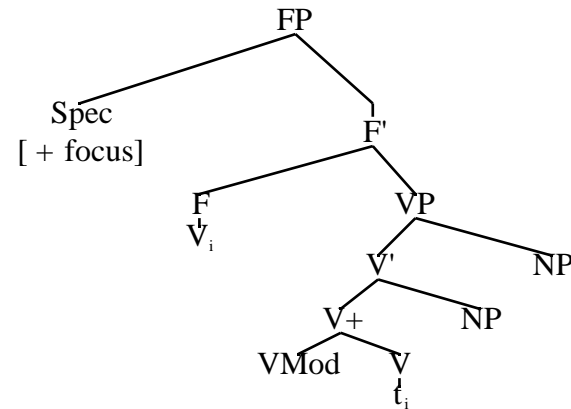
Example: [$_{FP}$JÁNOSSAL$_i$ [$_F$vittem$_j$ [$_{VP}$le t$_j$ a szemetet t$_i$]]
John-with took-I down the rubbish.ACC
'I took down the rubbish with JOHN'

Brody assumes that the verb in F-position assigns the F-feature to Spec-FP, or retains the F-feature on itself (in case the verb itself is in focus):

(41) [$_{FP}$ [$_F$ SZERETEM$_i$ [$_{VP}$t$_i$ Jánost]]
like-I-him John
'I LIKE John'

Evidence for this analysis: Multiple focus cannot affect the verb and another constituent (hence the verb can assign only one F feature, to F or to Spec-FP):

(42) a. Nem JÁNOSSAL vittem le a SZEMETET (hanem...)
not John-with took down the rubbish (but...)
'I didn't take down the RUBBISH with JOHN (but...)'

b. *Nem JÁNOSSAL VITTEM le a szemetet (hanem...)

(Notice that Brody assumes that a second focus feature can be assigned freely within the VP).

Quantifiers are adjoined to FP; the position of topics is unclear.

5.1.3 Postverbal Focus Positions

There are languages with postverbal focus positions. Watters (1979) discusses Aghem, a Grassfield Bantu language (cf. also Horvath 1986). Tuller (1992) discusses Chadic languages that exhibit this property. The focus may occur immediately after the verb (e.g., Western Bade,(43)), or after the direct object (Tangale, (44)).

(43) a. tela hawe ndi slebe nda
   cook where one meat INT
   'Where did one cook the meat?'

  b. tela de kwedege male slebe
   cook in kitchen mother-my meat
   'My mother cooked meat IN THE KITCHEN'

(44) wa patu ayaba nung ta luumo dooji
   FUT buy banana who at market tomorrow
   'Who will buy bananas at the market tomorrow?'

In the latter type, direct objects modified by a relative clause may be split (obligatory in Kanakuru):

(45) a. shag wamunjaanan nong nam Aisha diko
   ate food-RM who that Aisha prepaired
   'who ate the food that Aisha prepaired?'

  b. shag [wamunjaanam Aisha dikon] nong

What happens if the direct object itself is in focus? It immediately follows the verb, but there is evidence from sandhi phenomena (deletion of final vowel of preceding word within the same maximal projection) that it is outside of the VP (cf. Kenstowicz (1985)).

(46) a. unug [o] loshogolo ti lowei   [*o* deleted]
   gave fish   to child-the
   'She gave fish to the child'

  b. unugo nan ti lowei   [no deletion of *o*]
   gave what to child-the
   'What did she give to the child?'

Tuller sees this as evidence that the minimal maximal projection that contains V cannot contain a focus: We have structures like $[[_{VP} V...] [_F ...]]$.

Tuller assumes that the focus position is assigned by I(nfl), following Horvath (1986). He assumes the structure (a) for languages like Western Bade, and (b) for languages like Tangale:

(47) a. $[_I [_I V_i] [_{VP} [_{XP} + \text{FOC}] [_{VP} [t_i \ NP_{obj}]]]$

b. $[_I [_I V_i \ NP_{j,obj}] [_{VP} [_{XP} + \text{FOC}] [_{VP} [t_i \ t_j]]]]$

c. $[_I [_I V_i \ NP_{j,obj}] [_{VP} [_{XP} + \text{FOC}] [_{VP} [t_i \ [t_j \ \text{Modifier}]]]]$

The difference is motivated by a difference in case assignment: In (a)-type languages, V can transmit Case assignment properties to t, thus licensing NP_{obj}; in (b)-type languages, this is not possible, and the object must be raised as well. In languages with obligatory object splitting, only the head of an object NP is moved, and modifiers stay in situ (c).

Tuller also mentions that complements that need not be case marked (object clauses) can have postverbal focus in Tangale:

(48) neigon nung [ka Aish watug Billiri]
   said who that Aisha went Billiri
   'Who said that Aisha went to Billiri?'

However, focus can also occur at the end of the sentence, followed only by right-dislocated elements:

(49) a. wa patu ayaba ta luumo dooji nung
   FUT buy banana at market tomorrow who
   'Who will buy bananas at the market tomorrow?'

  b. wa pad yalam ti po luumo nong, dooji. [sic!]
   'Who will buy bananas at the market, tomorrow?'

Tuller proposes that there is another focus position at the end of the clause:

(50) $[_{CP} [_C \ \text{C IP}] [_{Spec} + \text{FOC}]]$

Cases with lack of object splitting (45.b) are analyzed as involving focus in Spec-CP. (Kanakuru has this option as well, but it has a Spec-CP focus position at the beginning of a sentence.)

5.2 Clefting

5.2.1 Cleft Sentences and Pseudo-Cleft Sentences

A frequent syntactic device for focusing are so-called **cleft sentences** (a) and **pseudo-cleft** sentences (b). In contrast to a regular sentence (c), these sentences are bi-clausal. There is a rich literature on the syntax, semantics, and discourse function of cleft and pseudo-cleft sentences (cf. Prince (1978), [Halvorsen, 1978 #6498], Collins (1991; Delin & Oberlander (1995)).

(51) a. It was a sherry that Tom offered Sue.
  b. What Tom offered Sue was a sherry.
  c. Tom offered Sue a sherry.

The function of clefts and pseudo-clefts obviously is related to highlighting certain pieces of information conveyed by the sentence. Typically, the cleft sentence highlights the constituent in the it-clause clause (in a, that it was sherry what Tom offered to Sue). The pseudo-cleft sentence highlights the information presented in the main clause (in b, again, that it was sherry). (But see further qualifications later).

The basic pattern of a cleft clause is as follows (cf. Prince 1978): A copula clause with an expletive *it* and a constituent X is modified by what is syntactically a relative clause. The relative clause contains a gap (here: t) that can be seen as the origin of X.

(52)   *it* COPULA X [RELATIVE [$_S$ ....t....]]

But the relative clause is not a standard relative clause that modifies either X or *it*. That becomes clear with examples where X belongs to a category that cannot be modified by relative clauses (in which case *that* must be used):

(53)   It was because he was ill that / *which he didn't come.

The basic pattern of a pseudocleft clause is as follows. The *wh*-element corrrepsonds to the gap in the *wh*-clause, and is identified with the constituent X.

(54)   [*wh* [$_S$ ... t ...]] COPULA X

There are a number of related constructions that are all bi-clausal. Collins (1991) identifies *th*-clefts and *all*-clefts:

(55) a. The one who took your purse was Mary.
     b. The thing that disturbs us is the number of car thefts.
     c. The reason he stayed home was that he expected a phone call.

(56)   All the car needs is a new battery.

Th-clefts are based on a relatively general noun (*one, thing, reason*, etc.). *All*-clefts are based on the determiner *all*. These constructions are close to pseudo-clefts: The general noun and *all* take over the role of the *wh*-word.

5.2.2 The semantics of clefts and pseudo-clefts

5.2.2.1 Clefts as identificational constructions.

It is generally assumed that cleft constructions form an **identificational** or **equative** construction (cf.Halliday (1967), Collins 1991): They identify the referents of two expressions.

(57) It was this sherry that Tom offered to Sue.
      paraphrase: The thing that Tom offered to Sue = this sherry.

Clefts have to be distinguished from **attributive** constructions, even though such constructions can have the same form as pseudo-clefts. (However, they cannot be rephrased as *it*-clefts):

(58) a. What Tom offered Sue was too sweet.
      b. *It was too sweet what Tom offered Sue.

There is one use of the form of *it*-clefts that is attributive as well (cf. Declerck 1983 for so-called „proverbial" uses):

(59) It is a poor soul that never rejoices.

The idea that clefting expresses an equational relation must allow for the identification of elements that are not of type e, as in (57). Our original example can be explained as an equation between two properties:

(60) It was a sherry that Tom offered to Sue.
      the property P that applies to the thing that Tom offered to Sue = the property A SHERRY.

Where the property A SHERRY applies to a thing x iff x is sherry, and x is **one** sherry (that is, it excludes that Tom offered Sue two sherries). This analysis is problematic in one point: a sherry can be described in other ways as well (e.g., *a drink*). Hence such properties should not violate the uniqueness requirement inherent in the identificational scheme.

The range of categories that can be identified by clefting is quite broad; it includes PPs, adverbials, finite clauses, and (to some degree) adjectival phrases:

(61) a. It was through David that Ingrid met Don.
      b. It was not so long ago that Stockhausen's music met with utter incomprehension.
      c. It is when he is late for work that he gets anxiety attacks.
      e. It was green that he painted the boat.

Similarly, pseudo-clefts can be formed with various categories:

(62) a. What Tom did was offer Sue a sherry.
      b. What Tom did with the Sherry was offer it to Sue.
      c. What happened was that Tom offered Sue a sherry.
      d. What happened to Sue was that Tom offered her a sherry.

5.2.2.2 Exhaustivity

If clefting structures are identificational by their semantic nature, it follows that they are **exhaustive**. This follows from the equational scheme: *These are my children* makes a truthful statement only if *these* refers to all of the children of the speaker.

But this exhaustivity condition is weaker than exhaustivity expressed by *only* or by an *all*-cleft):

(63) a. The car only needs a new battery, *and it needs a new alternator, too.

b. All the car needs is a new battery, *and it needs a new alternator, too.

c. It is a new battery that the car needs, ?and it needs a new alternator, too.

d. What the car needs is a new battery, ?and it needs a new alternator, too.

Explanation of this difference: with *only* and *all*-clefts, exhaustivity is asserted. With *it*-clefts and pseudo-clefts, exhaustivity is treated as a kind of presupposition (cf. Halvorsen 1978: conventional implicature). But this type of presupposition or conventional implicature is weaker than other known cases:

(64) The king of France is bald, *and/but France is a republic.

We can say that the existence condition of definite NPs like *the king of France* is a precondition for what is asserted by a sentence like *the king of France is bald*. We cannot predict baldness of a non-existing entity. But exhaustivity is not a precondition of what is asserted by a cleft sentence like *It is a new battery that the car needs* (which just asserts that the car needs a new battery). Hence it is easier to violate this condition.

5.2.2.3 Existence

Clefting constructions also come with an existence presupposition, that there is some entity with the required property (cf. Halvorsen 1978). This presupposition survives negation and modal operators, as presuppositions typically do:

(65) a. It wasn't John that Mary kissed. [still entails: Mary kissed somone].

b. Perhaps it was John that Mary kissed.
[still entails: Mary kissed someone].

The following case seems to argues against the presupposition analysis, according to Atlas & Levinson (1981)) and Delahunty (1984). But such cases occur only as corrections of existing presuppositions.

(66) It wasn't John that Mary kissed, she didn't kiss anybody.

Collins (p. 74) suggests that exhaustivity and existence have a distinct status:

(67) a. A: It was Tom you saw.   B. No, I didn't see anyone.
                        B: ?No, I saw other people as well.

5.2.2.4 Stativity

Delin & Oberlander (1995) observe that cleft constructions are **stative** and therefore are used for backgrounding in discourse. For example, in a narrative they typi-

cally identify background conditions and do not specify an event in a reported series of events. Cf. the following texts.

(68) Mr. Butler, the Home secretary, decided to meet the challenge of the "Ban-the-Bomb" domonstrators head-on. Police leave was cancelled and secret plans were prepared. *It was Mr. Butler who authorised action which ended in 32 member of the Committee of 100 being imprisoned.* The Committee's president and his wife were jailed for a week.

(69) Mr. Butler, the Home secretary, decided to meet the challenge of the "Ban-the-Bomb" domonstrators head-on. Police leave was cancelled and secret plans were prepared. *Mr. Butler authorized action which ended in 32 members of the Committee of 100 being imprisoned.* The Committee's president and his wife were jailed for a week.

5.2.3 The pragmatics of clefts and pseudo-clefts

It is commonly assumed that clefting constructions serve to highlight certain parts of their sentences. But there are important differences between clefts and pseudo-clefts, and differences in the nature of *it*- cleft-sentences as well.

5.2.3.1 Types of it-clefts

Prince (1978) discusses two types of *it*-clefts, cf. also Hedberg (1990). **Stressed-focus** *it*-clefts or **topic-clause** *it*-clefts have a nuclear accent on the clefted constituent, cf. (a). **Informative-presupposition** clefts or **comment-clause** *it*-clefts have a nuclear accent within the relative clause, cf. (b). This type is sometimes considered a minor pattern (cf. Delin 1992):

(70) a. It was his kéys that John lost.

b. It was also during these centuries that a vast internal migration from the south northwards took place.

Clearly, in (a) the clefted constituent *his keys* is the focus, and it is presupposed that John lost something. In (b), the clefted constituent is not a focus, but rather a topic or a scene-setter; the new information is presented in the *that*-clause. But this information is not new, but rather marked as a generally known fact. We find this form typically in historical narratives, to give background information, and so on (Prince distinguishes between "given" information and "known" information). The following contrast [not from Prince] may support this analysis of comment-clause *it*-clefts:

(71) Guess what happened!

a. During these centuries a vast internal migration from the south northwards took place.

b. ? It was during these centuries that a vast internal migration from the south northwards took place.

Delin (1992) offers a more fine-grained distinction of *it*-clefts, depending on whether there exists a secondary focus or not (the names are mnemonics for S[trong accent], W[eak accent], 1 focus domain, 2 focus domains:

(72) a. [Type SW1]:A: You've put milk in my coffee. Yuk.
    B: It was yóu who put the milk in.

b. [Type SW2]:A: This coffee's really yukky.
    B: It was yóu who put the mìlk in.

c. [Type WS1]:A: And does the head know?
    B: No. Oh, wait a minute.
       It was the head who arránged it.

d. [Type WS2]:A: [seeing a mistake in a transcript in B's thesis]:
       Did the subject really make this error?
    B: No, its mè who can't t´ype properly.

SW corresponds to topic clause clefts, WS to comment clause clefts. Delin analyzes the lack of a secondary focus in the "1" examples as instances of complete destressing as an anaphoric device; the destressed part is always given in the immediate context. In SW1, the W part can be elided (*It was you*), in WS1, the W part can be replaced by a pronoun (*He arránged it*). This is of course not possible in WS1. Delin also observes that pronouns in W cannot be clitic, even if they are destressed:

(73) [And do they know?] It was them / *'em who arránged it.

5.2.3.2 It-clefts vs. Wh-clefts

In wh-clefts, the cleft construction is topical, and new material is introduced in the relative clause. The topic can refer to something explicitly given in discourse, or to something that is a topic of conversation by inference (a so-called "bridge").

(74) There is no question what they are after. What the committee is after is smebody at the White House.

(75) Nikki Caine, 19, doesn't want to be a movie star. [Inferred topic: What Nikki wants to do]
    What she hopes to do is be a star on the horse-show circuit.

An important property of *wh*-clefts is that the entity referred to in the *wh*-clause can be assumed to be present in the mind of the addressee, either by the preceding text or the situation. This makes discourse-initial *wh*-clefts possible in rare circumstances (e.g. (a), as the beginning of a lecture, in contrast to (b)).

(76) [Discourse-initial sentences:]
    a. What we're going to look at this term is the law of gravitation.
    b. *What one of my colleagues said this morning was that the law of gravitation is worth studying.

In contrast, the entity referred to in the *that*-clause of an *it*-cleft is not treated as being present in the mind of the addressee:

(77) Aren't those good? It was only sheer will power that kept me from eating twelve every night. (?What kept me from eating twelve every night was only sheer will power.)

A consequence of that is that *it*-clefts are possible with parts of idioms, as in the following case:

(78) a. It's an arbitrary line that you're drawing.
    b. *What you are drawing is an arbitrary line.

However, there are problems with this account (cf. Gundel (1985)). For example, why is the following sentence bad as the beginning of a lecture:

(79) It is the law of gravitation that we are going to lock at this term.

Collins (1991: 104) assumes that *it*-clefts favor a contrastive interpretation of the clefted constituent, that is, an interpretation in which a number of alternatives to the clefted constituent were made prominent in the discourse; this is not the case at the beginning of a discourse. But there remain problems with this view:

(80) a. It is with deep regret that we pay this last tribute.
    b. *What we pay this last tribute is with deep regret.

5.2.4 Clefting, Focus and Topic-Comment structure

5.2.4.1 The use of clefting

Clefting is is obviously a device that can be used for focus marking. In the prototypical case, the constituent X in the cleft patterns (52) and (54) is in focus. However, we have to qualify this in important respects:

First, it is not the focus, but the **focus phrase** (in the terminology of Drubig (1994)) that is in focus:

(81) a. It was [$_{FP}$ the man who offered [a shérry]$_F$ to Sue] that Bill wanted to talk to.
    b. What Tom offered Sue was [$_{FP}$ the book that [Bíll]$_F$ recommended].

Secondly, we have seen that there are two distinct types of *it*-clefts, topic-clause and comment-clause *it*-clefts. This suggests that the function of clefts is primarily to identify the topic-comment structure of a sentence.

(82) a. It [$_{\text{Comment}}$ was his kéys] that [$_{\text{Topic}}$ John lost].
Topic: the thing that John lost.
Comment: = his keys.

b. It was [$_{\text{Topic}}$ the head] who [$_{\text{Comment}}$ arránged it].
Topic: the head
Comment: arranged it.

How does this relate to the idea that clefting is a device of focus marking? We can reasonably assume that the comment of an utterance must contain a focus. The comment is what is new in an utterance, that is, what is not established yet. Hence it naturally contrasts with other possibilities that could be true. These other possibilities are indicated by focus, the standard device to indicate the presence of alternatives.

What about the secondary focus that may be present within the topic part (Delin's SW2 and WS2 patterns)? Here focus again indicates the presence of alternatives, that is, the presence of alternative topics (so-called **contrastive topics**). In the following example, the topic *me* is contrasted with other possible topics (here, the subject):

(83) [Did the subject really make this error?] No, it's mè who can't t´ype properly.

The contrastive topic analysis seems plausible for WS2 examples, but not for SW2 examples:

(84) [This coffee is really yukky.] It was yóu who put the mìlk in.

Presumably no contrast is involved in *who put the milk in*. The weak accent on *milk* presumably is a result of neutral accentuation in the absence of focus.

5.2.4.2 Clefting and Structured Propositions

Cleft constructions are obviously well-suited for these purposes: Semantically, we need a partitioning of a proposition (e.g., into a topic part and a comment part). Clefts do exactly that: They transform a proposition that we can describe by a scheme [...   ...] to two meanings that we can describe by two schemes,   and x[... x ...]. We can derive something quite similar to the original proposition by equating these two meanings: = x[... x ...].

Notice that this proposition is not quite the same, though -- it comes with an existence and a uniqueness presupposition, and it is a stative predication, which explains the special properties of cleft structures we have talked about. If the second meaning were   x[... x ...] instead, we could recover the original proposition by x[...x...]( ). (It is remarkable that natural language syntax does not seem to provide an operation for this type of structuring.)

The technique of structuring propositions is used to identify the topic of a discourse (which entails identifying the comment). The abstract scheme (splitting [...   ...] in   and x[... x ...]) can obviously be used in either way -- to identify   as the topic, or to identify   x[... x ...] as the topic. This is indeed what we find for *it*-clefts.

5.2.4.3 Cleft constructions and focus markers

Cleft constructions are widespread in the languages of the world. In many cases, morphological focus markers can be traced back to clefting constructions (cf. e.g. Heine & Reh (1984) p. 165, for Rendille).

In French (Lambrecht (1994)), one cleft construction (*c'est*-cleft) is used to express constituent focus:

(85) [I heard your motorcycle broke down?]
C'est ma VOITURE qui est en panne.
'My cár broke down', lit. 'It's my car that broke down'.

Another cleft-like construction is used for all-new utterances, which would involve subject accent in English:

(86) [What happened?]
J'ai ma VOITURE qui est en panne.
I have my car which is in trouble, 'My cár broke down'.

This construction is presumably not motivated by the need to create a bipartite proposition. Rather, French does not allow pre-final accent in a clause. If accent has to be assigned to the subject, then the cleft construction achieves exactly that: It creates a clause for the subject in which it can be clause-final. See Sasse (1987) for this type of marking "thetic" judgements in a variety of languages.

5.3 Extrapositions

Extraposition is the adjunction of constituents (typically clausal) at the end of a sentence. The following example shows extraposition of a relative clause from an NP.

(87) a. A guy that I met at Treno's yesterday just came in.
b. A guy just came in that I met at Treno's yesterday.

This type of extraposition has a curious property, as definite and indefinite NPs behave differently (cf. Ziv & Cole (1974)):

(88) a. The guy that I met at Treno's yesterday just came in.
b. *The guy just came in that I met at Treno's yesterday.

There were attempts to explain this difference as a consequence of the difference between indefinites and definites (cf. Guéron & May (1984)): Indefinite NPs are quantified and have to undergo adjunction to the sentence in LF, a position from which they can c-command an extracted relative clause, whereas definite NPs are not

quantified and remain in situ, a position from which they cannot c-command the extracted relative clause. Problems with this view: Indefinite NPs are different from quantified NPs in many other respects and should be interpreted in situ (cf. donkey sentences), and true quantified NPs do not allow for extrapositions either:

(89) a. Every student that participated in the field work class got an invitation.
b. *Every student got an invitation that participated in the field work class.

Also, Guéron (1980) has observed that demonstrative NPs behave like indefinites:

(90) That man came into the room that I was telling you about.

Huck & Na (1990) observe that extraposition from definites is fine if the extraposed clause contains a contrastive focus:

(91) No, I haven't seen the man that was carrying a suitcase. But the guy came just in that was carrying a black cóat.

They give the following explanation: An indefinite NP introduces a new discourse referent, and the description of this discourse referent cannot be presupposed. A definite NP refers to an existing discourse referent, and the descriptive part is presupposed (the description is used to pick out the proper discourse referent). [Similarly, the description of the domain of a quantifier is presupposed.] Extraposed constituents must be in focus. Presupposed material cannot be in focus, except in the case of contrastive focus. Hence modifiers of definite NPs can be extraposed only if they have a contrastive focus. Similarly, with demonstrative NPs, the description may not be presupposed: the NP *that man* refers independently, and *I was telling you about*^gives additional information.

See also Rochemont & Culicover (1990), chapter 2.

5.4 VP Preposing and do-support

5.4.1 VP preposing

Another syntactic construction in English that involves focusation is **VP preposing** (cf. Ward (1990)):

(92) As members of the Gray Pathers committee, we went to Canada to learn, and **learn** we did.

(93) Waiting in long lines can be infuriating. Waiting in long lines to pay someone else money seems unconscionable. Waiting in long lines to pay someone else more money than they seem to be entitled to is lunacy. But **wait in line** they did Monday in Chicago, partaking in the semi-annual ritual of settling up property taxes by the 6 p.m. deadline.

(94) [About Tour de France winner Greg LeMond]: He said: 'I didn't think that I just rode'. **Ride** he did. Le Mond won the time trial easily, ...

(95) If Philadelphia is lucky, Egan's slipping up -- if **slipping up** he did -- will stand as an early warning to all camps not to fan a racial issue that (...)

VP consists of the preposing of a VP in a topical position. In the main clause, this VP is represented by a verb *do*.

Ward (1990) distinguishes the following functions of VP preposing, exemplified by the preceding examples:

- Affirmation of a proposition that is neither semantically entailed by nor presupposed in the prior discourse.

- Affirmation of a proposition that stands in rhetorical opposition to another proposition conceded in a prior discourse.

- Affirmation of a proposition whose predicate is construable as a scal upon which the subject represents a high value.

- Suspension of a speaker's belief in an explicitly evoked and salient proposition.

In general, the preposed VP needs an antecedent clause in which another token of this VP was applied to the same subject. The sameness requirement follows from the odditiy of the following:

(96) *I wanted to take a vacation, but take a vacation Sám did.

Hence VP preposing is a device to refer to a salient proposition. It is clearly not a device to focus on this VP or on this proposition; rather, it is a topicalization device. But it focuses on the **truth polarity** of the proposition. In many contexts, the new information is that the proposition, entertained as a possibility before, is indeed true. (in example (94) this is clearly an understatement). But in non-veridical contexts like (95) that the proposition is true is just entertained as a possibility. Notice that the main accent (and hence the focus) is on *do*, which presumably has the semantic effect of focusing on the truth value.

5.4.2 *Do*-support and verum focus

The use of *do* as a focused element in VP-preposing constructions corresponds to other instances in which *do* seems to focus on the truth polarity of a sentence (cf. Gussenhoven 1984, Höhle (1992)).

(97) [I have heard that John didn't go to school.] You're wrong, John díd go to school.

Similar constructions exist in many language. Often, the main predicate is not an empty verb like *do*, but the verb of the VP is repeated (sometimes called **predicate doubling**, cf. [Manfredi, 1993 #6509], Levebvre & Ritter (1993), Koopman (1984)). Examples:

(98) a. [Swahili] Ku-fagia, a-li-fagia.
INF-sweep 3SG-PAST-sweep 'as for sweeping, she did it'

b. [Haitian] Se pati li pati.
it-is leave 3SG leave   'She really/indeed left'

c. [Igbo] Ézè bu-ru íbu è-bú.
Eze carry-ASP load NOM-carry 'Eze really carried a load'

The motivation for these constructions seems to be the following: The lexical content of the verb should not be in focus when we just want to focus on the fact that a proposition is or may be true. One way of avoiding focus on the content is to use a verb without content, *do*. Another way is to make clear, by having a copy of the verb outside of the focus, that the content of the verb is already given, and hence it cannot be the lexical content that is in focus.

Verum focus constructions in German focus on the finite verb or, in dependent clauses, on the complementizer:

(99) a. Hans gíng zur Schule.   'John díd go to school'

b. Ich weiß, dáß Hans zur Schule ging. 'I know that John díd go to school'

Höhle (1992) first proposes a theory saying that verum focus is marked by accenting the functional head C^0 (which is occupied by the finite verb in root clauses, and by the complementizer in embedded clauses). However, there is one problem with this theory: In dependent copula sentences, verum focus may be realized at the copula instead of the complementizer (cf. Höhle 1992):

(100) [I'd like to know whether she is in Rome.]

a. Karl meint, dáß sie in Rom ist.

b. Karl meint, daß sie in Rom íst.

We find this option also in cases that involve an auxiliary in dependent sentences:

(101) [I'd like to know whether she will meet him in Rome.]

a. Maria weiß, dáß sie ihn in Rom treffen wird.

b. Maria weiß, daß sie ihn in Rom treffen wírd.

This is similar as in English, where *do*-support is impossible if the finite verb is a copula, or an auxiliary:

(102) a. She ís in Rome. / *She dóes be in Rome.

b. She wíll buy an umbrella. / *She dóes will buy an umbrella.

What is special with copulas and auxiliaries is that they have a rather limited and schematic semantic content on their own; many languages do without them in most circumstances. Arguably, the lexical semantic content of the copula can never be focused because of this reason. This seems to be reason why the copula and the auxiliary are candidates to attract accent in verum focus cases like (100.b) and

(101.b): Accent of *ist* cannot possibly mark a focus of the lexical meaning of this word, hence it is an excellent option if focus has to be expressed somewhere. That is, focus is not realized at the copula or the auxiliary because it shares its syntactic position with some covert verum operator. Rather, we have another case of default accent: Accent has to be realized somewhere, and it is realized at the most unconspicuous place. But then this type of explanation should be extended to other cases of verum focus as well. In German, the position of the finite verb in independent clauses, and of the complementizer in dependent clauses, is arguably the position that is in general taken by elements that are most unlikely to be highlighted in their lexical content. Hence verum focus does not really identify an operator in a sentence, but rather tries **not** to identify any particular operator.

5.5 Stylistic Inversion, there-*constructions, and NP Shift*

5.5.1 Stylistic Inversion Constructions

Inversion constructions in English consist in a change-of-place of the subject NP and an adverbial phrase, typically locative or directional:

(103)a. In front of her sat her mother.
b. Into the room walked John.
c. Under the table was a large box.

The auxiliary *be* allows for a wider range of preposed constituents:

(104)a. Sitting in front of her was her mother.
b. Found at the scence of the crime was an axe.

This construction marks the postverbal subject as focus. It is often assumed that these structures orginate from a postposing of the subject NP to a VP-adjoined position. Rochemont & Culicover (1990) argue against this analysis, observing the following contrast:

(105)a. *Into the room walked nude John.
b. Into the room walked John nude.

They argue that stylistic inversion involves preposing of a VP and inversion of NP and I. Several points remain quite unclear in their analysis. A possible derivation is the following, which assumes that the subject originates from a VP-internal position:

(106)[IP e [I' e [VP her mother [V sat [PP in front of her]]
[IP [in front of her]1 [I sat2 [VP her mother [V t2 [t1]]]]

Notice that stylistic inversion is possible only with certain verbs that express existence. Diesing (1992) assumes that only certain types of verbs (stage-level verbs) allow for VP-internal subjects.

5.5.2 Locative Inversion in Bantu

Bantu languages show a similar phenomenon called **locative inversion**. Interestingly, the locative phrase agrees with the verb; the notional subject does not agree. The following data are from Swahili:

(107)a. Mwitu-ni m-me-lala wanyama.
         forest-LOC in-PERF-sleep animals
         'in the forest animals were asleep'

   b. Hapa pa-me-kufa simba.
       here at-PERF-die lion
       'On this spot there has died a lion'

The postverbal notional subject is in focus, and is introduced as a new entity into discourse (so-called **presentational construction**, cf. Hetzron (1971).

Bresnan & Kanerva (1989) give a lexicalist account of the phenomenon in Chichewa in which the focus on an argument leads to a restructuring of the way how arguments are assigned to syntactic roles. Roughly, for non-agentive verbs, focus on what would normally end up as the subject leads to a reconfiguration in which the subject position is assigned to the locative phrase. This explains why locative inversion is restricted to a certain class of intransitive verbs with non-agentive subjects.

5.5.3 Presentational *There*-constructions and NP Shift

Two other types of constructions in English that influence focus marking are presentational *there*-constructions and heavy NP shift:

(108) John bought for his mother [a painting that he liked]

(109) There walked into the room [a man with blond hair].

In general, the extraposed NP must be in focus in these constructions. Cf. Rochemont & Culicover 1990) for discussion.

5.6 Detachment in Catalan

[Vallduví, 1995 #6514; Vallduví, 1990 #6397] discusses the use of **detachmet** in marking focus and topic in Catalan. Detachment is like extraposition, except that it is not used to mark the detached phrase as being in focus, but rather enables focus on another phrase.

Basic facts: Catalan has strict phrase-final accent and does not allow for free assignment of focus:

(110)a. Ficarem   el ganivet al CALAIX.
         we will put the knife in the drawer
   b. *Ficarem el GANIVET al calaix.
   c. *FICAREM el ganivet al calaix.

Example (a) may focus on the whole VP (e.g. as an answer to 'What house chore will you guys take care of?'). Focus on the non-final constituent *el ganivet* must be achieved by left detachment or right detachment of *al calaix*, which is possible by leaving a coindexed pronominal. Vallduví also assumes that a trace is left in the original position.

(111)a. Hi_1 ficarem el GANIVET t_1 al $calaix_1$.
   b. Al $calaix_1$ hi ficarem el GANIVET t_1

(Presumably detached clauses are external to the intonational phrase of the core clause, a point that Vallduví does not elaborate on.)

Similarly, focus on *al calaix* must be indicated by detachment of *el ganivet*, or alternatively by a realization of the object as a pronoun [no data given].

Vallduví argues that detached phrases are external to the core clause, created by adjunction. Arguments: the necessity of a pronominal copy, free word order for adjoined clauses (a), clause-peripheral clitics like *oi* 'right?' can appear between clause and detached phrase.

(112)a. L'_1 hi_2 FICAREM t_1 t_2, el $ganivet_1$, al $calaix_2$.
   b. L'_1 hi_2 FICAREM t_1 t_2, al $calaix_2$, el $ganivet_1$.

(113)a. Ficarem el ganivet (*oi) al CALAIX, (oi)?
   b. El_1 ficarem el GANIVET, oi el $ganivet_1$?

Vallduví interprets detachment of phrases as driven by the need to mark them as **link** (topic) or **tail** (non-topical, non-focused material). Left-detachment is used for link marking, right-detachment is used for tail marking:

(114)A: [On són, els coberts?]
         'Where's te silverware?'

   B: Les forquilles són a l'armari, però
       the forks are in the cupboard, but
   a. els $ganivets_1$ els_1 vaig ficar t_1 al CALAIX.
       the knives   them I put   in the drawer
   b. *els_1 vaig ficar t_1 al CALAIX, els $ganivets_1$.

The verb itself, together with other arguments, can undergo right-detachment (cf. Vallduví (1992) for an analysis against preposed foci):

(115)   al FUSTER la mare va donar les claus.
         to the carpenter the mother gave the keys
         'Mother gave the keys [to the carpenter]F.

Vallduví interprets the informational function of Catalan structures as follows: The full-fledged structure is [IP link [IP [IP focus] tail]]. The link identifies a discourse referent (file card) at which the information expressed in focus + tail should be stored. If the ground contains no tail but is all focus, then this information is sim-

ply stored. If the ground contains a focus part and a tail part (e.g. [[put the knives] in the drawer]], (111.a)), then some piece of information is replaced by another one (e.g., it was stored, for the discourse referent x = 'we', that x did something else with respect to the drawer, and it is expressed that, as a matter of fact, x put the knives in the drawer.

Comment: Left-detachment is clearly motivated by topicalization. Is right-detachment of a phrase   motivated by the need to mark   as a tail, or rather by the need to mark another phrase   as a focus, by achieving a phrase-final position of   ? In other words, is tailhood a genuine discourse-pragmatic function that can be the target of a syntactic operation, or rather focushood? The latter seems more plausible, but it would lead us to saying that a constituent   may undergo movement for the sake of another constituent,   , violating the principle of "greed" (cf. Chomsky (1993)).

5.7 Scrambling in German

Another syntactic phenomenon that is sensitive to focusation and topicalization in **scrambling** in free word-order languages. Here we will mainly discuss scrambling in German (cf. Grewendorf & Sternefeld (1990)).

5.7.1 The phenomenon

Basic facts about German syntax: Dependent clauses have verb-final word order. Independent clauses (assertions) have the finite verb in second position, presumably an instance of movement to C^0. Another constituent moves to the Spec-CP position.

(116)a. $[_{CP}$ e $[_{C'}$ weil $[_{IP}$ der Junge dem Mädchen den Apfel geschenkt hat]]

　　　　because   the boy (NOM) the girl (DAT) the apple (ACC) given has

　　b. $[_{CP}$ der Junge$_1$ $[_{C'}$ hat$_2$ $[_{IP}$ t$_1$ dem Mädchen einen Apfel geschenkt t$_2$]]]

We are interested here in the word order of the adjuncts and arguments of the verb within IP, the so-called **middle field**. This order is relatively free and can be influenced by many factors.

Example (116.a) gives the normal word order. There are several tests for normal word order. For example, normal order allows for broadest focus projection (cf. Höhle (1982), and Sgall, Hajicová, & Panevová (1986)), which can be shown by the question/answer test. In the following example, some of the possible foci are indicated by brackets; notice that broad focus on *dem Mädchen den Apfel geschenkt* is easily possible in (a), whereas focus on *den Apfel dem Mädchen geschenkt* is clearly dispreferred in (b)[1].

---

[1] Höhle (1982: p. 120 allows for this type of focus projection too, and assumes that a ditransitive verb like *schenken*, everything else being equal, allows for both orders of objects as basic; however, there is a rather clear difference.

(117)a.　weil der Junge [dem Mädchen [[den Ápfel] geschenkt]] hat

　　b.　weil der Junge den Apfel [[dem M ädchen] geschenkt] hat

　　c.　weil dem Mädchen den Apfel [[der Júnge] geschenkt] hat

Originally, scrambling (introduced in Ross (1967 [1986])) was seen as a mere stylistic reordering in free word order languages like Latin, Russian, or German. Some authors saw scrambling as evidence for a flat structure (e.g., É. Kiss 1981, Hale (1983)). But certain binding asymmetries clearly argue against this position (cf. Webelhuth (1984)).

(118)a.　*weil seine$_i$ Lehrer jeden$_i$ fürchten

　　　　because his teacher (NOM) everyone (ACC) fear

　　b.　weil jeden seine Lehrer fürchten

Notice that (a) shoud be fine under a flat structure, as *jeden* would c-command the pronoun *seine*. It is ruled out under a non-flat structure: [seine Lehrer [jeden [fürchten]]].

Scrambling is now generally regarded as a process involving syntactic movement, in general from a lower, embedded position to a higher position, which means movement from right to left in an OV-language like German. The nature of this movement is still under discussion (See Grewendorf & Sternefeld (1990), Corver & Riemsdijk # for recent collections on scrambling):

- **Scrambling as A-bar movement (wh-movement):**

Webelhuth (1989) discusses similarities of scrambling and wh-movement like extraction from maximal projections, Island sensitivity, Left branch condition etc., but without a systematic comparison with alternative analyses.

- **Scrambling as A-movement (NP movement)**

Fanselow (1989) argues for scrambling in German and Turkish as NP-movement (it may be wh-movement in other languages, like Hungarian, Japanese). Reasons:

(a) wh-movement is unbounded, NP-movement is bounded.

(b) wh-movement blocks wh-movement, in contrast to NP movement:

　which book do you think that John, I gave to _ ?

　was$_2$ hat Peter der Maria$_1$ vermutlich t$_1$ t$_2$ gezeigt?
　what has Peter the Maria (DAT) presumably shown

- **Scrambling as restricted A-bar movement**

Müller & Sternefeld (1993): In German, scrambling is local, and wh-movement is long distance, which seems to argue for a different classification. However, these properties can be derived independently by assuming that wh-movement uses only Spec-C as landing sites; scrambling essentially involves adjunction; and chains cannot contain "mixed" landing sites (these are "improper movements", cf. "Principle of Unambiguous Binding"). Hence:

was sagt sie [CP t daß der Fritz t mag]?
*weil sie [VP Pudding [VP sagt [CP t' daß der Fritz t mag]]]]

In Russian ajdunction to CP (and NP) is allowed, therefore we find scrambling out of CP (long distance), as the movement is proper:

Ty [VP doktor [VP videl [CP kogda [IP t pod'ezz^al]]]]?
'did you see when the doctor came'?

5.7.2 Scrambling and focus

We have seen that scrambling affects the normal word order and thus destroys options for broad focusation. It also interacts with focus, insofar as constituents in focus tend to avoid scrambling (cf. Grewendorf & Sternefeld 1990). On the other hand, constituents that are in focus have a tendency to occur at the end of the middle field.

(119)a. weil der Junge dem Mädchen [$_F$den Ápfel] geschenkt hat

    b. *weil dem Mädchen [$_F$den Ápfel] der Junge geschenkt hat.

    c. weil dem Mädchen den Apfel [$_F$ der Júnge] geschenkt hat.

The same can be observed with wh-elements (in multiple wh-constructions, one wh-element moves to Spec-CP, the other remains in situ):

(120)a. Wem hat der Junge was geschenkt?

    b. *Wem hat was der Junge geschenkt?

We may interpret this as follows: There is a natural tendency for focused constituent to occur as late as possible in the clause. This cannot override the necessity to have the verbal complex in the final position of the sentence, but it leads to to a position of focused phrases within the middle field as late as possible

The tendency of putting focused expressions in preverbal position has been observed for a number of OV languages (cf. [Kim, 1988. xiv, 394 pp. #2984] for this observation, and the descriptions of Turkish in Erguvanli (1984) and of Urdu in Butt (1996).

Notice: If scrambling is movement to the left, then we must assume that elements may scramble for the "sake" of other constituents that are in focus (a movement that violates greed).

Another option: Scherpenisse 1989, movement rule that incorporates focused elements (subcategorized NP and directional PPs) in the verb, leading to a preverbal position:

$$[_{VP} ...X...V] \qquad [_{VP} ... [_V X_{+F} V]]$$

What does "late" or "preverbal" position mean? The verbal predicate may be complex, but only if it represents the "normal" word order:

(121)a. weil der Junge [$_F$dem M ädchen] (den Apfel geschenkt) hat.

    b. *weil den Apfel [$_F$dem M ädchen] der Junge geschenkt hat.

This is particularly obvious with directional constructions, light verb constructions and idioms:

(122)   weil der Junge [$_F$ die Zéitung] in den Ofen gesteckt hat
        because the boy the newspaper in the oven put has

(123)a.   weil der Junge [$_F$dem M ádchen] (eine Ohrfeige gegeben hat)
        because the boy the girl (DAT) a slap given has

    b. ? weil der Junge eine Ohrfeige [$_F$dem M ädchen] gegeben hat

Notice that the parts following the focused elements always are destressed.

Of course, it is the focus phrase, not the focus, that occurs in pre-verbal position by scrambling:

(124)   weil der Junge [$_{FP}$ das [$_F$ bláue] Handtuch] benutzt hat
        because the boy the blue towel used has

Bies 1994, in Bosch/van der Sandt: Early New High German (1300-early 1500, letters) had a focus position following the middle field, distinct from extraposition in modern German. Bies analyses this as VP-adjunction. Similar analysis of Middle Dutch, Burridge 1993.

sunder daz sie auch sehen Lazarum 'but that they also see Lazarus'

Nice example for narrow focus:

in dem luft, der gibt dem menschen aten, daß er icht ersticke;
in the air that gives the man [$_F$breath] that he not soffocates
in dem feur, daß dem Menschen gibt wirm, daß er nicht erfrieß,
in the fire that the man gives [$_F$warmth] that he not freeze to death

Wide focus, on the other hand, does not lead to postposing:

wissent, das bruder H. wol mag und wol tut und [fast meße spricht]
you should know that brother H. good wants and good does and
[$_F$lenten service holds]

5.7.3 Scrambling and interpretation: The theory of Diesing (1992)

Diesing (1992) develops a theory of scrambling and its effect in the syntax/semantics mapping, in particular, on quantificational phenomena. While focus is not the main area of investigation, the theory is of relevance for the way how focus and scrambling interact.

Diesing's theory explains the interpretation of indefinites in episodic (stage-level) sentences and stative (individual-level) sentences:

(125)a. Firemen are available.
      Reading (1): x[firemen(x)   be-available(x)]
      Reading (2) GENx[firemen(x)] [be-available(x)]

b. Firemen are brave.

Reading (1): not available

Reading (2): GENx[firemen(x)] [be-brave(x)]

Explanation:

- There are two subject positions, VP-internal and VP-external. In stage-level predicates, subjects originate VP-internally but can move to a VP-external position. In individual-level predicates, subjects originate in the VP-external position.

- Diesing's **Mapping hypothesis**: VP-external material goes into the restrictor of a quantifier, like the generic quantifier GEN. VP-internal material stays in the nuclear scope of a quantifier and undergoes existential closure. ("**semantic partition**").

(126)a1 $[_{IP}$ e $[_{VP}$ firemen be available]]

a2 $[_{IP}$ firemen$_1$ $[_{VP}$ t$_1$ be available]]

b2 $[_{IP}$ firemen $[_{VP}$ be brave]]

In German and Dutch, the different positions of the subject can be observed directly. Diesing assumes that scrambling consists in adjunction to VP. She also assumes that modal particles are adjoined to VP and hence mark the VP boundary.

(127)a1.weil $[_{IP}$ ja doch $[_{VP}$ Feuerwehrleute verfügbar sind]]

a2.weil $[_{IP}$ Feuerwehrleute$_1$ ja doch $[_{VP}$ t$_1$ verfügbar sind]]

b2 weil $[_{IP}$ Feuerwehrleute ja doch $[_{VP}$ mutig sind]]

In Dutch, an IP subject position must be filled by an expletive if it is not occupied otherwise:

(128)a1.Fred denkt dat $[_{IP}$ er $[_{VP}$ twee koeien op het dak liggen]]

Fred thinks that EXPL   two cows on the roof   lie

a2.Fred denkt dat $[_{IP}$ twee koeien $[_{VP}$ op het dak liggen]]

b1.*Fred denkt dat $[_{IP}$ er $[_{VP}$ koeien lui zijn]]

Fred thinks that EXPL cows lazy are

b2 Fred denkt dat $[_{IP}$ koeien $[_{VP}$ lui zijn]]

Here, the subject in (a2) has a specific or partitive reading, in contrast to the subject in (a1).

Diesing (p. 49ff.) observes that focus plays a role in these observations. We have the following patterns:

(129)a. Betty only said that $[_F$ éggplants are available].

b. *Betty only said that $[_F$ éggplants are poisonous].

(130)a. weil ja doch $[_F$Féuerwehrleute verfügbar sind].

b. weil Feuerwehrleute ja doch $[_F$verf ügbar sind]

c. *weil $[_{FP}$ Féuerwehrleute ja doch verfügbar sind].

Diesing suggests that focus projection is possible only within the VP. This corresponds to earlier observations that focus projection is possible only under the normal word order of constituents: Constituents within the VP remain in situ; the only way to change the basic word order that is relevant is by scrambling, which is adjunction to VP.

Diesing's mapping hypothesis assumes that the syntactic position of indefinite NPs is critical for their intepretation in a quantified sentence. Alternatively, we can assume that whether or not the NP occurs within a focus domain is the critical property: Indefinites in a focus are interpreted in the nuclear scope, indefinites outside a focus are interpreted in the restrictor (cf. Rooth 1985). Focus projection is possible only within a VP, hence indefinites outside of VP are not in focus, and end up in the restrictor.

Difference between the two theories: Even an NP within a VP may end up in the restrictor, if it is not in focus. This is indeed possible:

(131)   weil ja doch $[_{VP}$Feuerwehrleute $[_F$ verf übgar sind]].

GENx[firemen(x)] [be-available(x)]

Cf. Eckhardt 1996 for an elaboration of the view that it is focus, and not being internal in a VP, that leads to existential closure.

5.7.4 Scrambling in Optimality Theory

Choi (1996) gives an account of scrambling in German and Korean in terms of Optimality Theory. This seems to be particularly well suited, as the final word order in free-word order languages is the result of a number of competing factors. Choi sees the final word order in the German middle field as a result of three tendencies:

- The canonical order of arguments: Subject < Adjunct < Indirect Object < Direct Object
  [but notice that this varies with particular verbs!]

- Old information (context bound) should precede new information.

- More important (focused) information should precede less important information (!)

This leads to a situation in which contrastive foci (old information + more important) end up at the beginning of the middle field. Non-contrastive foci are typically new, and hence are realized to the right.

Atlas, Jay D., and Levinson, Stephen C.: 1981, 'It-clefts, informativeness, and logical form: radical pragmatics', in P. Cole (Ed.), *Radical pragmatics*, New York, Academic Press, pp. 1-61.

Bresnan, Joan, and Kanerva, Jonni M.: 1989, 'Locative inversion in Chichewa: a case study of factorization in grammar', *Linguistic Inquiry, 20*(1), 1-50.

Brody, Michael: 1990, 'Remarks on the order of elements in the Hungarian focus field', in I. Kenesei (Ed.), *Approaches to Hungarian vol. 3*, Szeged, JATE, pp.

Choi, Hye-Won: 1996, *Optimizing structure in context: Scrambling and information structure.* Unpublished Ph.D. dissertation, Stanford University.

Chomsky, Noam: 1993, 'A minimalist program for linguistic theory', in K. Hale & S. Keyser (Eds.), *The view from Building 20. Essays in linguistics in honor of Sylvain Bromberger*, Cambridge MA, MIT Press, pp. 1-52.

Collins, Peter: 1991, *Cleft and pseudo-cleft constructions in English*, London, Routledge.

De Rijk, R.P.G.: 1978, 'Topic fronting, focus positioning and the nature of the verb phrase in Basque', in F. Jansen (Ed.), *Studies in fronting*, Lisse, Peter de Ridder Press, pp.

Delahunty, G.: 1984, 'The analysis of English cleft sentences', *Linguistic Analysis, 13*, 63-113.

Delin, Judy: 1992, *Aspects of cleft constructions in discourse* (Arbeitspapiere des Sonderforschungsbereichs 340 19). Stuttgart: Universität Stuttgart und Tübingen.

Delin, Judy, and Oberlander, Jon: 1995, 'Syntactic constraints on discourse structure: the case of it-clefts', *Linguistics, 33*, 465-500.

Diesing, Molly: 1992, *Indefinites*, Cambridge, MA, MIT Press.

Drubig, Hans Bernhard: 1994, *Island constraints and the syntactic nature of focus and association with focus* (Arbeitspapiere des Sonderforschungsbereichs 340 Nr. 51). Tübingen.

É. Kiss, Katalin: 1981, 'Topic and focus: The operators of the Hungarian sentence', *Folia Linguistica, XV*, 305-330.

É. Kiss, Katalin: 1993, 'WH-movement and specificity', *Natural Language and Linguistic Theory, 11*, 85-121.

É. Kiss, Katalin: 1994, 'Sentence structure and word order', in F. Kiefer & K. É. Kiss (Eds.), *Syntax and Semantics: The syntactic structure of Hungarian.* Vol. 27, New York, Academic Press, pp. 1-90.

Erguvanli, Eser: 1984, *The function of word order in Turkish grammar*, Berkeley, Los Angeles, University of California Press.

Fanselow, G.: 1989, 'Scrambling as NP-movement', in G. Grewendorf & W. Sternefeld (Eds.), *Scrambling and barriers*, Amsterdam, John Benjamins, pp. 113-142.

Farkas, Donka F.: 1986, 'On the syntactic position of focus in Hungarian', *Natural Language & Linguistic Theory*, 77-96.

Grewendorf, Günther, and Sternefeld, Wolfgang: 1990, 'Scrambling theories', in G. Grewendorf & W. Sternefeld (Eds.), *Scrambling and barriers*, Amsterdam, John Benjamins, pp. 3-40.

Guéron, Jaqueline: 1980, 'On the syntax and semantics of PP-extraposition', *Linguistic Inquiry, 11*, 637-678.

Guéron, Jaqueline, and May, Robert: 1984, 'Extraposition and logical form', *Linguistic Inquiry, 15*, 1-31.

Gundel, Jeannette: 1985, ''Shared knowledge' and topicality', *Journal of pragmatics, 9*, 83-107.

Hale, Kenneth: 1983, 'Warlpiri and the Grammar of Non-configurational Languages', *Natural Language and Linguistic Theory, 1*(1), 5-47.

Halliday, M.A.K.: 1967, 'Notes on transitivity and theme in English, Part 2', *Journal of Linguistics, 3*, 199-244.

Hedberg, Nancy A.: 1990, *Discourse pragmatics and cleft sentences in English.* Unpublished Ph.D. dissertation, University of Minessota.

Heine, Bernd, and Reh, Mechthild: 1984, *Grammaticalization and Reanalysis in African Languages*, Hamburg, Busse.

Hetzron, Robert: 1971, 'Presentative function and presentative movement', *Studies in African Linguistics, Supplement 2*, 79-105.

Höhle, T.: 1982, 'Explikationen für 'normale Betonung' und 'normale Wortstellung'', in W. Abraham (Ed.), *Satzglieder im Deutschen*, Tübingen, Narr, pp. 75-154.

Höhle, Tilman: 1992, 'Über Verum-Fokus im Deutschen', in J. Jacobs (Ed.), *Informationsstruktur und Grammatik*, Opladen, Westdeutscher Verlag, pp. 112-141.

Horvath, Julia: 1986, *Focus in the Theory of Grammar and the Syntax of Hungarian*, Dordrecht, Foris.

Huck, Geoffrey J., and Na, Younghee: 1990, 'Extraposition and focus', *Language, 66*(1), 51-77.

Kenesei, István: 1993, *A minimalist program for the syntax of focus.*,, Ms., University of Szeged.

Kenstowicz, Michael: 1985, 'The phonology and syntax of wh-expressions in Tangale', *Studies in the Linguistic Sciences, 15*.

Koopman, Hilda: 1984, *The syntax of verbs. From verb movement rules in the Kru languages to universal grammar*, Dordrecht, Foris.

Lambrecht, Knud: 1994, *Information structure and sentence form. Topic, focus, and the mental representation of discourse referents.*, Cambridge, Cambridge University Press.

Levebvre, Claire, and Ritter, Elizabeth: 1993, 'Two types of predicate doubling adverbs in Haitian Creole', in F. Byrne & D. Winford (Eds.), *Focus and grammatical relations in creole languages*, Amsterdam, John Benjamins, pp. 65-91.

Müller, Gereon, and Sternefeld, Wolfgang: 1993, 'Improper movement and unambiguous binding', *Linguistic Inquiry, 24*(3), 461-507.

Ortiz de Urbina, Jon: 1995, 'Residual verb second and verb first in Basque', in K. É. Kiss (Ed.), *Discourse-configurational languages*, Oxford, Oxford University Press, pp. 99-121.

Prince, Ellen F.: 1978, 'A comparison of wh-clefts and it-clefts in discourse.', *Language, 45*, 883-906.

Rochemont, Michael, and Culicover, Peter: 1990, *English focus constructions and the theory of Grammar*, Cambridge, Cambridge University Press.

Ross, John R.: 1967 [1986], *Constraints on variables in syntax.* Unpublished Ph.D. dissertation, MIT, Cambridge, Mass.

Sasse, H.-J.: 1987, 'The thetic/categorical distinction revisited', Linguistics.

Sgall, Peter, Hajicová, Eva, and Panevová, Jarmila: 1986, *The meaning of the sentence in its semantic and pragmatic aspects*, Dordrecht, Reidel.

Szabolcsi, Anna: 1981, 'Compositionality in focus', *Folia Linguistica, XV*, 141-161.

Szabolcsi, Anna: 1995, 'On modes of operation', 10th Amsterdam Colloquium.

Tuller, Laurice: 1992, 'The syntax of postverbal focus constructions in Chadic', *Natural Language and Linguistic Theory, 10*, 303-334.

Vallduví, Enric: 1992, 'Focus constructions in Catalan', in C. Laeufer & T. A. Morgan (Eds.), *Theoretical analyses in Romance linguistics*, Amsterdam, John Benjamins, pp.

Ward, Gregory: 1990, 'The discourse functions of VP preposing', *Language, 66*(4), 742-763.

Watters, J.R.: 1979, 'Focus in Aghem', in L. M. Hyman (Ed.), *Aghem grammatical structure*,, pp.

Webelhuth, Gert: 1984, 'German is Configurational', The Linguistic Review.

Webelhuth, Gert: 1989, 'Diagnostics for structure', in G. Grewendorf & W. Sternefeld (Eds.), *Scrambling and barriers*, Amsterdam, John Benjamins, pp. 41-76.

Ziv, Yael , and Cole, Peter: 1974, 'Relative extraposition and the scope of definite descriptions in Hebrew and English', Chicago Linguistic Society.