*Carl Bache & Niels Davidsen-Nielsen**

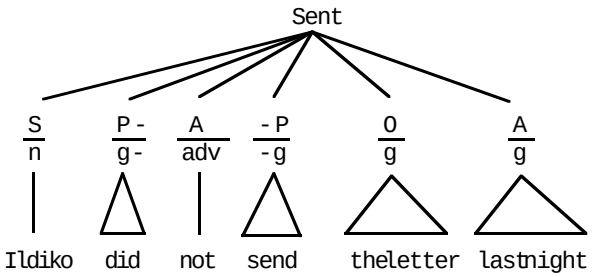
Discontinuity in English

Introduction

In this paper we offer a sample of the grammar of English that we are presently writing for the Danish Research Council for the Humanities. The section that we have chosen to present here is on discontinuity – a topic that rarely receives separate attention, even in comprehensive grammars of English. Before letting our readers loose on this exciting topic, we would like to offer a brief characterization of the descriptive framework within which our presentation appears.

First of all a note on the syntactic system used in our grammar. We employ a simple form-function notation (for an introduction see Bache elsewhere in this volume, Bache et al. 1993, or Bache & Davidsen-Nielsen 1996). Discontinuity is marked explicitly in the system by means of *hyphens*, as in the following examples:

(1) Ildiko *did* not *send* the letter last night.



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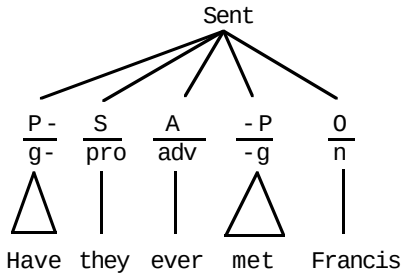
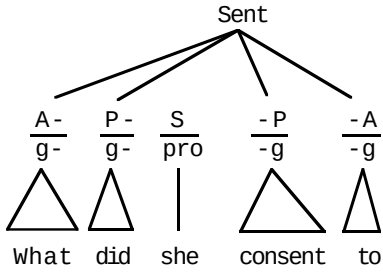
(2) *Have* they ever *met* Francis?



(3) *What did* she *consent to*?



In these examples, right-hyphenation (i.e. hyphenation *after* a label, such as P:g- in example (1)) indicates a discontinuous relationship between the unit it represents in the tree (*did*) and a unit in the *subsequent* linguistic context (*send*), identically labelled but with left-hyphenation (i.e. a hyphen *before* the label, such as -P:g in example (1)). Notice that although each part of a discontinous constituent may consist only of one word, as in all of the examples above, we have not yet reached the word level in our analysis of the discontinuous constituent (hence the use of triangles). The internal relationship of the parts that have been separated remains to be specified, exactly as in continuous constituents.

The second point we wish to make before offering our section on discontinuity concerns the general condition of *linearity* imposed on language. Linearity is obviously an important factor in the organization

of language: since *simultaneity* of expression is excluded, we can predict that, in compensation, elements that somehow 'belong together' will be placed as closely together in the sequence as possible. Consider e.g. the following sentences:

(4) *Alex, Stephanie and Roger* went sailing this morning.

(5) She almost enjoyed the *warm stale sweet* air.

In (4) *Alex*, *Stephanie* and *Roger* belong together (in that they all took part in the event expressed by the rest of the sentence, i.e. they all went sailing), but since we cannot express them simultaneously they are instead placed as closely together as possible. The same applies to *warm*, *stale* and *sweet* in the examples in (5): they belong together because they perform the same function in the sentence, namely that of describing *air*. As they cannot be expressed simultaneously but are forced into a sequence, they are at least placed closely together. Given the condition of linearity, it is thus in a sense *natural* that words that belong together should be placed together in the sequence of words making up the sentence. In this way we can say that the necessary linearity in the organization of language leads to the principle of *proximity*. On the basis of this principle we choose as our descriptive point of departure to regard *continuity* as more basic than *discontinuity*.

The third and final point concerns constituent order. In our grammar we operate with the following seven basic sentence structures (involving obligatory constituents only):

Structure	**Examples**
S P	Nothing happened.
S P A	He squeezed between two motor-cars.
S P O	You must persuade her.
S P Cs	She proved surprisingly uncooperative.
S P Oi Od	You do me a very great honour.
S P O Co	He had knocked two opponents totally senseless.
S P O A	We must put some flesh on your bones.

These structures are all declarative, active and positive.

Since we have chosen continuity and the seven structures as basic, any instance of discontinuity and/or departure from the constituent order in the seven structures requires careful explanation. Thus, for

example, a sentence like *Jack I never met*, which has the order O S (A) P, and which differs from the basic S (A) P O pattern in having a fronted object, is explained in terms of thematization: the object is a marked theme. Similarly, in *Ildiko did not send the letter last night* with the discontinous predicator *did ... send*, the discontinuity is explained with reference to polarity: standard clausal negation in English is achieved by letting the adjunct NOT intervene between the operator and the rest of P, thereby creating discontinuity in P. If there is no operator, DO is inserted as a dummy operator (DO-support). Note that since NOT is an optional adjunct, standard clausal negation does not affect the basic constituent order in the example: both the positive and the negative version conform to the S P O pattern.

But discontinuity often causes a change also in the basic constituent order. Thus in *Is Sally telling the truth?*, we have a combination of discontinuity (*Is ... coming*) and inversion of constituent order (P- S -P O). By moving the operator to a position in front of the subject, thereby creating both discontinuity and a change of basic constituent order, we form a YES/NO-interrogative.

With these introductory remarks we now proceed to the section on discontinuity in our grammar, section 5.6, which is the final section in our chapter on constituent order (chapter 5). We offer the section in full, and, except for a few corrections of typological errors and inconsistencies, exactly as it stands in Bache & Davidsen-Nielsen 1996. Cross-references to other parts of Bache & Davidsen-Nielsen 1996 have been retained.

5.6. Discontinuity

It has been pointed out earlier that the forms realizing a constituent tend to stay together rather than to be interrupted by other constituents but that this principle is often defeated by other principles (illocutionary value, highlighting, increasing complexity). In the following sections we shall examine the types of discontinuity found in English and the conditions under which discontinuity occurs.

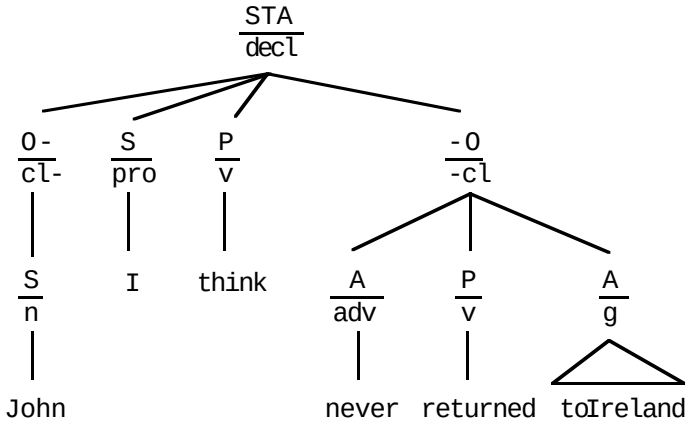
5.6.1 Discontinuous clauses. Arguably we have discontinuous clauses in cases like:

John, I think, *never returned to Ireland*.

This, he claimed, *was caused by the inefficient handling of young criminals*.

This continued, she told me, *for several minutes*.

These sentences contain parenthetical 'matrix clauses' with verbs of conviction or communication. It is tempting to analyse such sentences in terms of discontinuous *object* clauses, as in e.g.:



This proposal reflects our interpretation of the discontinuous clause as somehow the 'logical' object of the verb of conviction or communication. By adopting this analysis we capture the obvious relationship between such examples and continuous alternative expressions like:

I think *(that) John never returned to Ireland*.

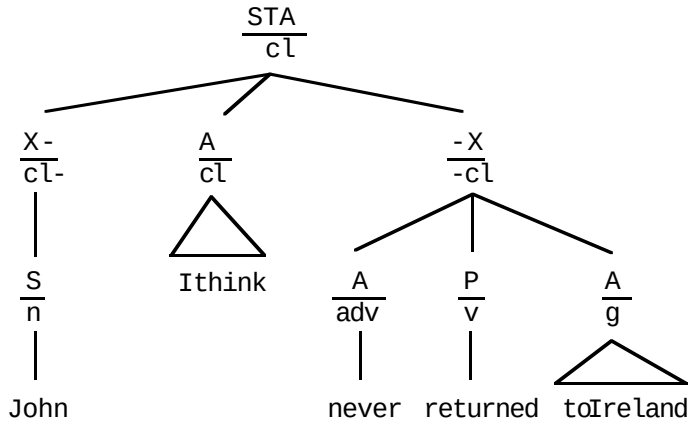
He claimed (that) *this was caused by the inefficient handling of young criminals*.

She told me *(that) this continued for several minutes*.

In these examples, it seems, the only possible analysis of the italicized part is O:cl. Note, however, that there is a significant difference between the two sets of examples: unlike the continuous object clauses, the discontinuous ones cannot be supplied with an explicit marker of subordination (e.g. **That John, I think, never returned to Ireland*). Thus while the status of the clause as a subclause is clear in the continuous

examples, it is at least questionable in the discontinuous examples. Another, related problem with the proposed analysis of the discontinuous cases is that it does not reflect the parenthetical status of the 'matrix'.

If we want to reflect the parenthetical nature of the 'matrix', this can be done by assigning to it instead the status of dependent, adverbial clause in relation to the rest of the sentence, which accordingly is analysed as a discontinuous clausal function stack:



This analysis, according to which it is the discontinuous clause that is the matrix clause rather than the subclause, is supported by the fact that the parenthetical clause, like many adverbials (e.g. *probably*), can be deleted without this affecting the status or grammaticality of the rest of the sentence (*John never returned to Ireland*).

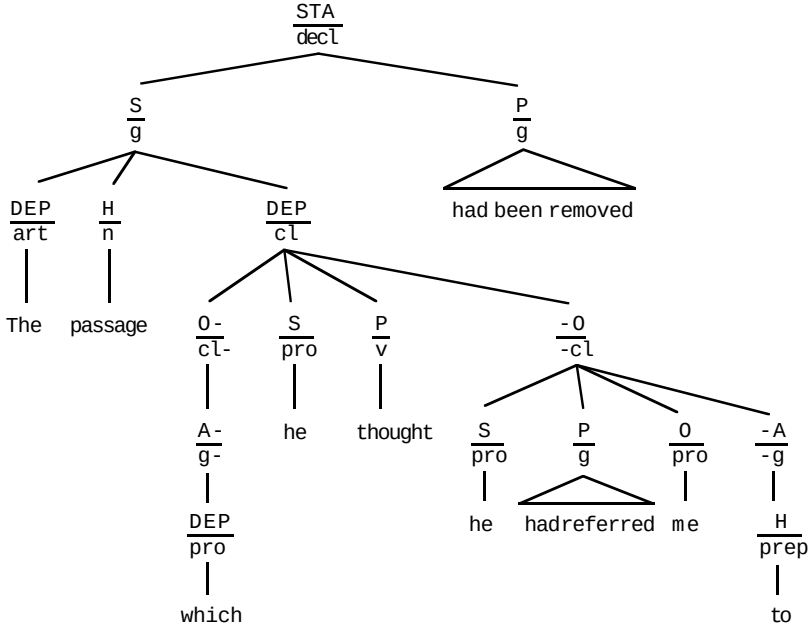
The only way to avoid recognizing discontinuity in such examples is to treat the parenthetical clauses simply as fully integrated adverbials (like e.g. *never*). But such an analysis is clearly less revealing of the relationships involved than the other proposals.

In relative subclauses there is further evidence for an interpretation involving discontinuous clauses in connection with verbs of conviction or communication. Consider the following examples:

> The house *that you told me Jack built last year* is now put up for sale.
> I bought the book *that you suggested I should read*.

> The passage *which he thought he had referred me to* had been removed.

The discontinuity is here caused by the relativization and fronting of an object or prepositional complement, as in the last example, where we have two discontinuities (a clause and a preposition group):



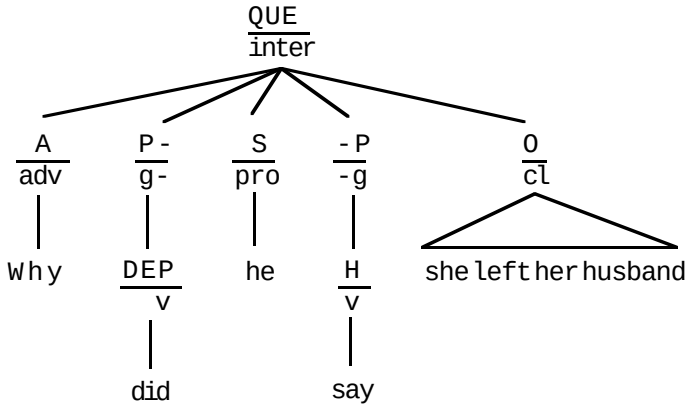
The subject and predicator are here not as readily interpreted as parenthetical as in main clauses. For this reason, they can hardly be assigned adverbial status.

In interrogative sentences, we get discontinuous clauses in cases like the following:

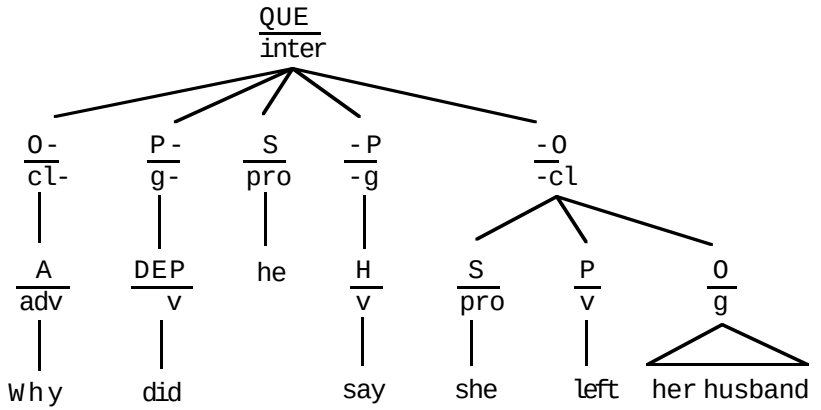
> When did you say he would arrive?
> Why did he say she left her husband?
> How did you say she packed the suitcase?

Such sentences are strictly ambiguous: the question relates either to the first predicator or to the second, i.e. ‘when did you say’ or ‘when would he arrive’; ‘why did he say’ or ‘why did she leave her husband’; ‘how

did you say' (e.g. angrily or impatiently) or 'how did she pack the suitcase'. If the question relates to the first predicator, there is no clausal discontinuity:



If, however, the question relates to the second predicator (i.e. if the underlying question is 'why did she leave her husband?', rather than 'why did he say anything about it?), we have a discontinuous clause:



The interesting feature of such interrogative sentences is that the question word (e.g. *why*) triggers (or attracts) subject-operator inver-

sion in the matrix clause, not the subclause, no matter which it relates to semantically. Thus, even when the interpretation is such that we assume an underlying question 'why did she leave her husband' rather than 'why did he say anything about it?', we do not actually say **Why he said did she leave her husband*. This, however, fits nicely with the lack of subject-operator inversion in corresponding continuous interrogative subclauses:

He wondered *why she left her husband*.

Having discussed discontinuous finite clauses, we turn now to discontinuous non-finite clauses. Corresponding to cases with verbs of conviction or communication like *John, I think, never returned to Ireland*, we get non-finite clauses with a fronted, topicalized constituent of the following type:

John he believed *to have returned to Ireland.*

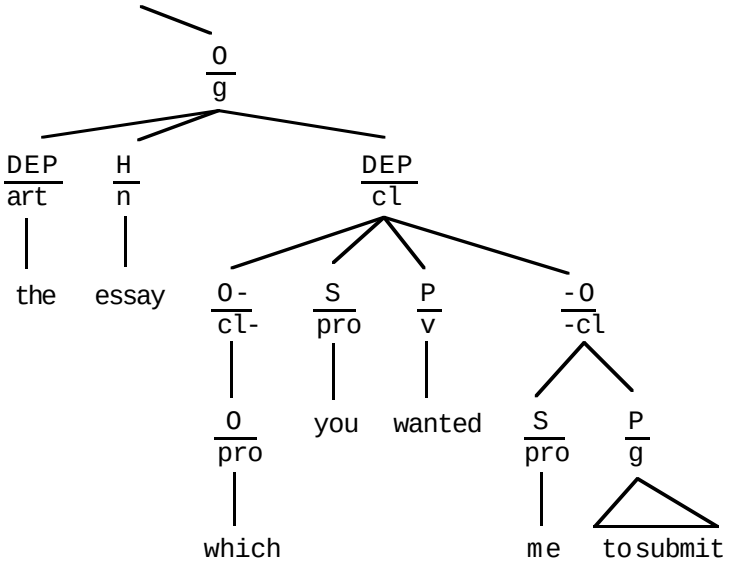
This sentence is derived from *He believed John to have returned to Ireland*. Notice that the subject-predicator sequence *he believed* cannot here be interpreted as parenthetical: **John, he believed, to have returned to Ireland*. There is thus no possibility of analysing *he believed* as an adverbial.

Topicalization of a constituent in a non-finite object clause may cause discontinuity, irrespective of the nature of the verb in the finite predicator:

This vase I want *you to sell to the Americans.*
The old lady they saw *climbing the stairs with difficulty*.

Such examples (derived from *I want you to sell this vase to the Americans* and *They saw the old lady climbing the stairs with difficulty*) are fairly marked. Embedded in relative clauses, however, where such topicalization is inbuilt, as it were, we find unmarked cases:

You won't like the essay *which* you wanted *me to submit*.



As pointed out in section 5.2.3, part of a message may be *postponed* in order to highlight it and achieve end-weight. This was illustrated by an example like *It worries me that the children have not returned* (Sp P O Sr), in which the clause realizing the subject is replaced by the substitute form *it* and moved to the end of the sentence. Extraposition, however, is not the only way in which end-focus and end-weight can be achieved. Instead of moving an entire subject clause to the end of the sentence it is possible to divide it and place the part of it following its subject in final position. This happens with TO-infinitive clauses:

(1) *He* is believed *to be guilty*.
(2) *The Kremlin* could not be expected *to comply with agreements reached under those circumstances*.
(3) *She* is known *to behave rather badly*.
(4) *I* happen *to know him well*.
(5) *John* seems *to take his job too much to heart*.
(6) *Alfred* appears *to be hungry*.
(7) *His explanation* was hard *to believe*.

Such discontinuity (traditionally referred to as ‘nominative with infinitive’) is found in passive sentences (such as (1) to (3)) with verbs

like ALLOW, BELIEVE, EXPECT, FIND, HOLD (in the sense of 'consider'), KNOW, SUPPOSE and THINK, in active sentences (such as (4) to (6)) with verbs like APPEAR, HAPPEN, SEEM and in sentences with complements (such as (7)) realized by adjectives (or adjective groups) like DIFFICULT, HARD, EASY, SIMPLE. While extraposition of an entire subject clause is largely optional (compare examples like *It would be awkward to go now* and *To go now would be awkward*), final placement of the predicator and any following constituents of TO-infinitive clauses is obligatory in examples like the ones given above. For instance, structures like **He to be guilty is believed* and **Alfred to be hungry appears* are ungrammatical.

While end-focus and end-weight are achieved both by means of extraposition and by means of discontinuity, the latter strategy serves the additional purpose of highlighting the subject of the subordinate clause through placement initially in the sentence. For example, the speaker gives more prominence to *Alfred* in choosing *Alfred appears to be hungry* than *It appears that Alfred is hungry*.

It does not go without saying that it is the entire TO-infinitive clause which functions as subject in the type of examples discussed here, and that discontinuity is thus in fact involved. It would not be far-fetched to assume instead that it is the (pro)nominal element preceding the finite verb which functions as subject, i.e. that the subject of an example like *She is known to behave rather badly* is realized by the pronoun *She* exclusively. In favour of such an analysis it could be argued that the subject of a nonfinite clause normally takes the objective case (as in *I want him to go*) and that this is not the case here. Furthermore, there is concord of number and person, not between the TO-infinitive clause and the finite verb but between the initial element and the finite verb. The type of construction we find is *I happen to know him well*, not **I/Me happens to know him well*, and as subject clauses count as 3rd person singular for concord, this is an argument against a clausal subject analysis. Thirdly, it is clearly the (pro)noun alone, not the combination of the (pro)noun and infinitive construction which constitutes the topic of the utterance.

Semantically, however, it is clearly the state of affairs described by the entire TO-infinitive clause which is specified by the finite verb. In *He is believed to be guilty*, for example, it is not 'he' but 'he to be guilty' that is believed. In favour of a clausal subject analysis it may be

argued syntactically that there are closely related structures in which it is rather obviously the entire clause which functions as a sentence constituent. Corresponding to the passive sentences there are often active sentences in which a continuous TO-infinitive clause functions as the object ("accusative with infinitive"):

The judge believes *him to be guilty*.
We know *her to behave rather badly*.

Corresponding to the active sentences, similarly, there are sentences with extraposition in which a continuous THAT-clause functions as the real subject:

It (so) happens that I know him well.
It seems that John takes his job too much to heart.
It appears that Alfred is hungry.

For these reasons a clausal subject analysis is here preferred to a non-clausal one. That the subject of the discontinuous TO-infinitive clause takes the subjective rather than the objective case and determines the number and person of the finite verb is assumed to be due to the special condition that it appears in the position normally reserved for the subject of finite verbs. The choice of the subjective rather than the objective case seems to be motivated by position rather than function.

Note also that if the subject test 'Who or what P?' mentioned in section 3.2.2 is applied to examples of the type discussed in this section, it will show their subject to be the entire TO-infinitive clause. Applied to sentences like *John is believed to be guilty* and *Alfred appears to be hungry*, for instance, the questions 'Who or what is believed?' and 'Who or what appears?' have to be answered by 'That John is guilty' and 'That Alfred is hungry' and cannot meaningfully be answered by 'John' and 'Alfred' alone.

Since it looks as if the subject of the subordinate clause has been "raised" into the main clause - note that it displays the defining subject characteristics A through D mentioned in section 3.2.2 - the term *subject raising* is used by many grammarians in their account of sentences of the type discussed in this section.

Discontinuity is occasionally also found in passive sentences in which the predicator of the subject clause is an *-ing* participle:

The girl was heard screaming.

As in the case of the passive TO-infinitive clauses there is an active parallel here too:

They heard the girl screaming.

As the goal against which the event described by *heard* is directed appears to be the event described by *the girl screaming* rather than the person referred to by *the girl*, it is reasonable to assume that the object is here clausal. In this analysis, the subject of the corresponding passive sentence may be assumed to be the discontinuous *-ing* participle clause *The girl ... screaming*.

5.6.2 Discontinuous verb groups. Verb groups are very frequently discontinuous. In the first place this is the case in all *interrogative sentences* except YES-NO questions with BE as main verb, *wh*-questions in which the interrogative pronoun realizes (part of) the subject and tag questions (in which the main verb is ellipted):

Did she ever *spend* the money I gave her?
*Is*n't there *supposed* to be a reading here in about twenty minutes?
What *will* you *have*?
How *would* you *suggest* that I get in touch with her?

As pointed out in section 5.2.2, the function of subject-predicator inversion is here to signal the *illocutionary value* of the utterance as being typically that of a question. And as the type of inversion involved is partial (see section 5.3.3), verb groups are consistently discontinuous in interrogative sentences.

This is also the case in *negative sentences*, in which the operator is separated from the rest of the verb group by the negative adverb NOT, and in sentences where other *adverbials* are placed after the operator:

You *have*n't *missed* much.
Other than the title, I *do*n't *know* a thing about your book.
I'*ve* never *trusted* hand squashers.
I'*m* only *joking*.

A much less important source of discontinuity is the *fronting of predication stacks* illustrated by examples like the following (repeated from our discussion of this subject in section 5.3.7 above):

[*Standing* around in the shops] *were* heavily bearded Jews with long gaberdine coats, wearing thick boots.

Finally, verb groups can be viewed as discontinuous in cases like the following:

Mary *called* the man *up*.
Miranda *waited* diligently *on* the Wilson family.
They *put* her behaviour *down to* lack of confidence.
The incident *reminded* me *of* her warning.
Sam *cut* his sermon *short*.

For discussion of such complex predicators, see sections 4.3.1 - 4.3.4.

5.6.3 Discontinuous noun and pronoun groups. While premodifiers are hardly ever separated from their heads in noun groups, postmodifiers are sometimes postponed in order to observe the principles of end-focus and end-weight, i.e. for reasons of *information structure*. Since postmodifying clauses are typically longer and heavier than postmodifying groups, it is mainly clausal postmodifiers which are separated from their head noun or pronoun. As illustrated by the following examples, these may be so-called appositive THAT-clauses (i.e. clauses which are referentially equivalent to the preceding head), relative clauses, *-ing* participle clauses and TO-infinitive clauses:

(1) *The rumour* spread *that the King had been beheaded.*
(2) Peter met *a girl/someone* last night *who lives in Tasmania*.
(3) I saw *a woman* yesterday *carrying a dead baby in her arms*.
(4) *The time* has come *to evict the squatters from our premises*.

In (1) and (4) the subject noun (or pronoun) group is so long and heavy and the rest of the sentence (the part realizing the predicator) so short and light that the principle of increasing complexity would be grossly violated if the postmodifying clauses were not postponed, i.e. these sentences would be completely off balance without discontinuity. In (2) and (3), on the other hand, discontinuity could be avoided without throwing the sentence off balance by moving the adverbial to the initial position, e.g. *Last night Peter met a girl/someone who lives in Tasmania*. But if the speaker does not wish to give prominence to this part of the message, and if the person named Peter constitutes his communicative point of departure and is thus the topic of his utterance (see section 3.2.2), such fronting would run counter to his communicative intentions.

Like postmodifying clauses, postmodifying groups may be separated from their head noun/pronoun in order to achieve end-focus or for reasons of end-weight. As appears from the next examples, both preposition groups and nominal modifiers may be postponed in this way:

> *The entire crew/Everybody* has drowned *except the captain of the ship*.
> *What business* is that *of his*?
> I pressed the trigger and *a hole* appeared in his forehead *the size of a quarter*.

Postponed preposition groups often denote exception and begin with EXCEPT, BUT, SAVE, EXCLUDING or APART FROM.

Not only clauses and groups but also single words may be separated from the noun/pronoun they postmodify. For example, emphatic *self*-forms (HIMSELF, HERSELF, etc.) can readily be moved from the position right after the noun to the end of the sentence to achieve end-focus:

> *Helen/She* told me the sad news *herself*.
> *The boys/They* have often made that mistake *themselves*.

The degree of emphasis provided by the *self*-form decreases with distance from the (pro)noun it postmodifies, compare:

> *John/He himself* read the book several times.
> *John/He* read the book *himself* several times.
> *John/He* read the book several times *himself*.

The first of these examples, where there is no discontinuity, is the most emphatic, and the third example, where the distance between head and dependent is the greatest, is the least emphatic (unless the pronoun is pronounced with very heavy stress).

Like *self*-forms, the quantifying indefinite pronouns ALL, BOTH and EACH can be separated from their head noun to give prominence to them:

> *The students* have *all* understood what you are driving at.
> *My brothers* have *both* understood what you are driving at.
> *My brothers* have *each* taken a big apple.

In these examples, *all* and *both* are separated from their head through postponement to the position after the operator of the verb group (compare *All the students / Both my brothers*). In the example with *each*, the only corresponding continuous construction is a pronoun group (*Each*

*of my brothers/*Each my brothers*) or a singular noun group (*Each brother*). Interestingly enough, the separate position typically occupied by these quantifiers is the *adverbial* central-M position (i.e. between S and P if P is realized by a full verb, or after the operator if P is complex or realized by the primary verb BE; cf. section 5.5.3):

(1) The students (probably) *all* understood what you are driving at.
(2) The students may *all* have understood what you are driving at.
(3) The students were *all* interested in what you are driving at.

Note that EACH, unlike ALL and BOTH, allows adverbial T-position:

(4) My brothers took a big apple *each*.

The possibility of inserting *probably* between *The students* and *all* in the first example shows that the pronoun does not simply behave like a post-modifying dependent in a continuous subject group.

On the evidence provided by examples (1) to (4), a possible alternative to an analysis in terms of discontinuity is to interpret ALL, BOTH and EACH when separated from their heads as *adverbials*.

In pronoun groups we find the same positions for ALL, BOTH and EACH as in noun groups:

They (probably) *all* understood what you are driving at.
We have *both* understood what you are driving at.
They have *each* taken a big apple.
They have taken a big apple *each*.

Notice that continuous constructions (as in *All the boys*, *Both my brothers*, etc) are not possible with pronominal heads. The only option for the speaker is to promote the dependent pronoun to head in a pronoun group; compare:

**All they* understand what you are driving at.
All of them understand what you are driving at.
**Both we* understand what you are driving at.
Both of us understand what you are driving at.

In all the constructions with ALL, BOTH and EACH discussed here, the function of these pronouns is to provide a further specification of the quantification of the head noun/pronoun. An alternative way of offering such specification, especially in spoken or informal English, is right-

dislocation, i.e. a kind of discontinuous *apposition*, where a discontinuous dependent is used which is capable of replacing the head:

The boys left the party, *both of them*.
(cf. *Both of them left the party*)
They understood what you are driving at, *all of them.*
(cf. *All of them understood what you are driving at*)

In this way, BOTH and ALL can receive end-focus like EACH (cf. *The boys took a big risk each*). Unlike most other cases of appositional dependents, continuity is only possible if the head of the construction is a pronoun rather than a noun, or if the apposition is clearly marked as parenthetical:

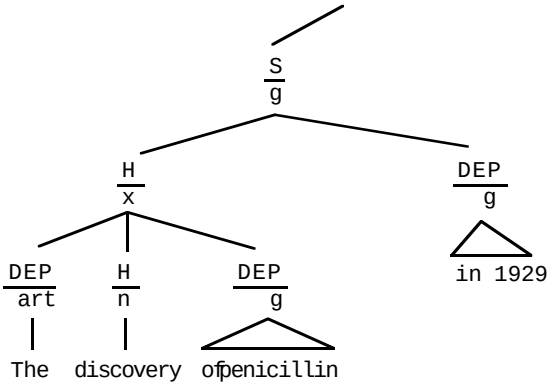
They both of them left the party.
**The boys both of them* left the party.
The boys - both of them - left the party.
They all of them understood what you are driving at.
**The students all of them* understood what you are driving at.

Again it is possible to view the quantifying expression as an adverbial rather than as a dependent in a discontinuous group.

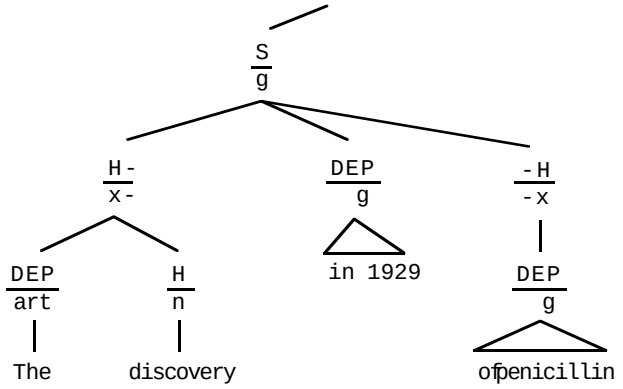
Leaving quantifying dependent pronouns aside, we turn finally to cases of *internal discontinuity* in noun groups:

The discovery in 1929 of penicillin has saved millions of lives.

While the subject noun group is not interrupted by another constituent here, the normal order *the discovery of penicillin in 1929* has been changed to give end-focus - in the first of the two tone groups which this utterance is divided into at normal speech tempo - to the word *penicillin*. In noun groups of this type, the two dependents are not coordinated. What we find here is *subordination*, for while *of penicillin* is a dependent of *discovery* only, *in 1929* is a dependent of *the discovery of penicillin*. This is shown in the following tree diagram:



This order reflects the normal S P O A order in the clause underlying the nominalization: *Someone discovered penicillin in 1929*. If the dependent preposition group in the head stack *the discovery of penicillin* is moved to the position after *in 1929*, this head noun group is realized discontinuously. This is shown in the next tree diagram. Communicatively, the effect of such internal discontinuity is the same as that of many instances of external discontinuity. In either case a part of a message is given extra prominence through postponement.



5.6.4 Discontinuous preposition groups. In *wh*-questions and relative clauses, the *wh*-complement of a preposition often leaves the pre-

position behind at the end of the clause when it is fronted to clause-initial position:

What did you do that *for*?
My computer, *which* I've had a lot of trouble *with*, is up for sale.

In independent declarative sentences, preposition groups may be realized discontinuously if the speaker wishes to highlight the referent of the complement through fronting, i.e. if he seeks to achieve a specific communicative effect:

This well you draw water *from*.

A construction which looks like a discontinuous preposition group is found in *passive sentences* of the following type, the active equivalents of which contain a continuous preposition group.

Democracy must be fought *for* every day.
(We must fight *for democracy* every day.)

The difference here is that the prepositional complement appears to function independently as the subject of the passive sentence, leaving the preposition 'stranded' and to be interpreted either as the realization of an adverbial or as a dependent preposition in a prepositional verb (see section 4.3.2).

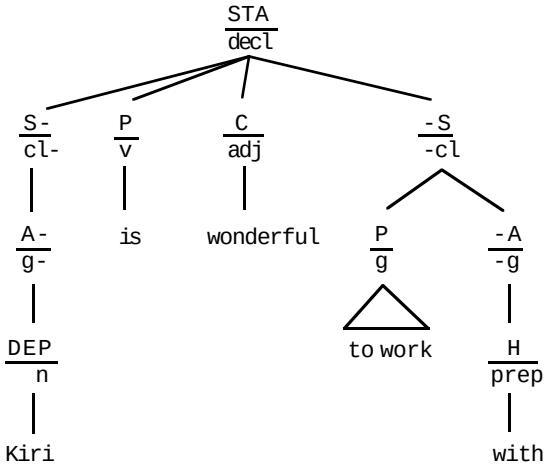
If FIGHT FOR is analysed as a prepositional verb, there are of course no preposition groups in the above sentences, whether continuous or discontinuous. In that case *We must fight for democracy every day* would be analysed as S P O A and *Democracy must be fought for every day* as S P A.

Finally, it should be mentioned that there is double discontinuity in an example like the following:

Kiri is wonderful *to work with*.

This sentence may be regarded as derived from *It is wonderful to work with Kiri*, which in its turn - through extraposition of the subordinate TO-infinitive clause - may be considered derived from *To work with Kiri is wonderful*. The specific communicative purpose it serves is to topicalize *Kiri*, and this is done by moving the complement of the preposition group realizing the adverbial in the subordinate clause into sentence-initial position (where it ousts the substitute form IT). As a result of this fronting both the subject clause and the adverbial preposition

group are realized discontinuously, the former as *Kiri ... to work with* and the latter as *Kiri ... with*.



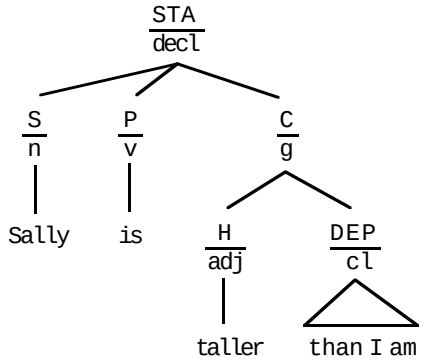
5.6.5 Discontinuous adjective and adverb groups. Adjective and adverb groups are often realized discontinuously in *comparative constructions*. We shall therefore begin this section by examining some of the basic facts of adjective and adverb comparison in English. In comparative constructions we distinguish three *degrees*: *positive*, *comparative* and *superlative*. There are two types of formal expression: *morphological* (or *synthetic*) comparison and *syntactic* (or *analytic*) comparison. The following table summarizes the possibilities:

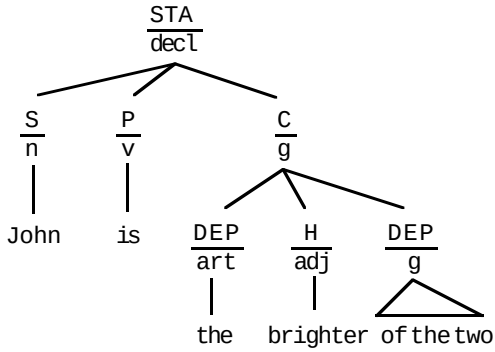
	Positive	Comparative	Superlative
Morphological comparison	tall	taller	tallest
	early	earlier	earliest
Syntactic comparison	beautiful	more beautiful	most beautiful
	wisely	more wisely	most wisely

A maximal comparative construction consists of three things: a *comparative element*, an adjective or adverb and *a comparative basis*. The comparative element is either realized morphologically as an inflection of the adjective or adverb (*-er*, *-est*) or syntactically as a separate word (the adverbs *more/less* or *most/least*). The comparative basis is the standard on the basis of which the comparison is expressed. This is typically realized as a THAN-construction in the comparative degree and an OF-construction in the comparative or superlative degree:

Sally is taller *than I am/than me*.
Mary danced more beautifully *than Jane (did)*.
John is the brighter *of the two*.
Sam worked the most diligently *of them all*.

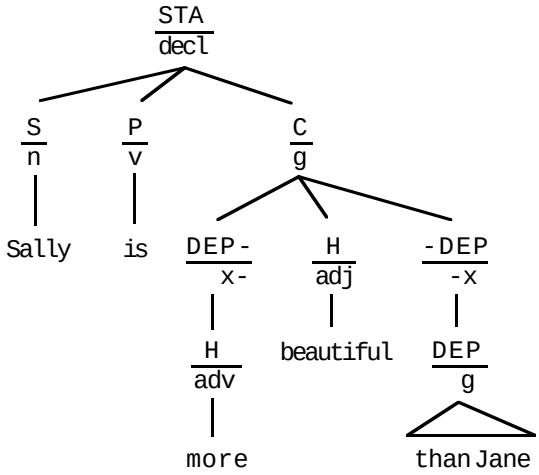
The sentence analysis of morphologically compared adjectives or adverbs is straightforward:





While the OF-construction is always considered a group, the THAN-construction may sometimes be interpreted as a clause with THAN as SUB:conj (e.g. *than I am*) or as a group with THAN as H:prep (e.g. *than me*).

The sentence analysis of syntactically compared adjectives or adverbs is more complicated and may well involve discontinuity. In constructions like *Sally is more beautiful than Jane* and *Jane danced more beautifully than Sally*, we might simply treat the comparative element (*more*) and the comparative basis (the THAN-construction) as separate dependents of the head adjective or adverb. But there are two alternatives. The first alternative is to group the comparative element and the adjective or adverb together as a H:g followed by the THAN-constructions as a DEP:g or DEP:cl. This solution is parallel to constructions with morphologically compared adjectives and adverbs (i.e. where the comparative element is morphologically 'grouped with' the adjective or adverb). The second alternative is to treat the comparative element and the constructions expressing the comparative basis as a discontinuous dependent of the head adjective or adverb; e.g.:



A similar analysis could be postulated for superlative constructions like *Sam worked the most diligently of them all* with *the most ... of them all* as a discontinuous dependent of the head adverb *diligently*.

An argument in favour of treating the construction expressing the comparative basis as a dependent of the comparative element rather than of the head adjective or adverb is that it provides a specification of the comparative element. Furthermore, its occurrence is more directly dependent on the occurrence of the comparative element. Thus we cannot say e.g. **Sally is beautiful than Jane* or **Sam worked diligently of them all*. And if we leave out the construction expressing the comparative basis, its meaning is implied only if the comparative element is present. Thus *Sally is more beautiful* implies e.g. *than Jane* whereas *Sally is beautiful* does not. It therefore seems reasonable to assume that there is a close relationship between the comparative element and the construction expressing the comparative basis, and an obvious way to reflect this in our analysis is to treat them as grouped together in a discontinuous stack.

Another kind of discontinuity occurs in comparative constructions when another clause function - usually an adverbial - intervenes between the adjective or adverb and the construction expressing the comparative basis:

> Sally is *calmer* now *than she was yesterday*. (S P C- A -C)
> Mary danced *more beautifully* last night *than ever before*. (S P A- A -A)

In the first example the adjective group realizing the subject complement is split into two parts by an adverbial, and in the second the adverb group realizing the adverbial (of manner) is split by another adverbial (of time). These discontinuities are motivated by considerations of end-weight and end-focus, i.e. they are to do with information structure.

If a comparative adjective group containing a comparative basis modifies a noun, it is often realized discontinuously:

> Sally is a *calmer* woman *than she was last year*.

If sufficiently weighty, such constructions may be realized as a continuous postmodifier in relation to the noun:

> Sally is a woman *noticeably far more considerate than Mary*.

We also find discontinuous adverb groups modifying adjectives:

> John is *better* prepared *than his sister*.

Not only comparative forms but also superlative forms may be interpreted as discontinuous in examples like the following:

> Peter has the *strongest* will *of them all.*
> This is the *least dramatic* anecdote *of the ones I've heard.*

In such cases, however, the status of the definite article is problematic: does it go with the superlative form or with the noun?

When the comparative basis is an OF-construction we sometimes find topicalization of this construction with obvious discontinuity as a result:

> *Of all the boys* Peter was by far *the brightest.*
> *Of the two teams* Norwich were *the more efficient.*

We also find discontinuity in constructions expressing degree which are neither comparative nor superlative:

(l) Sally is *as calm* now *as she was yesterday*. (C:g)

(2) Mary danced *so beautifully* last night *that people began to cry*. (A:g)

(3) The person who called me was *too busy* at the time *to answer my questions over the phone*. (C:g)

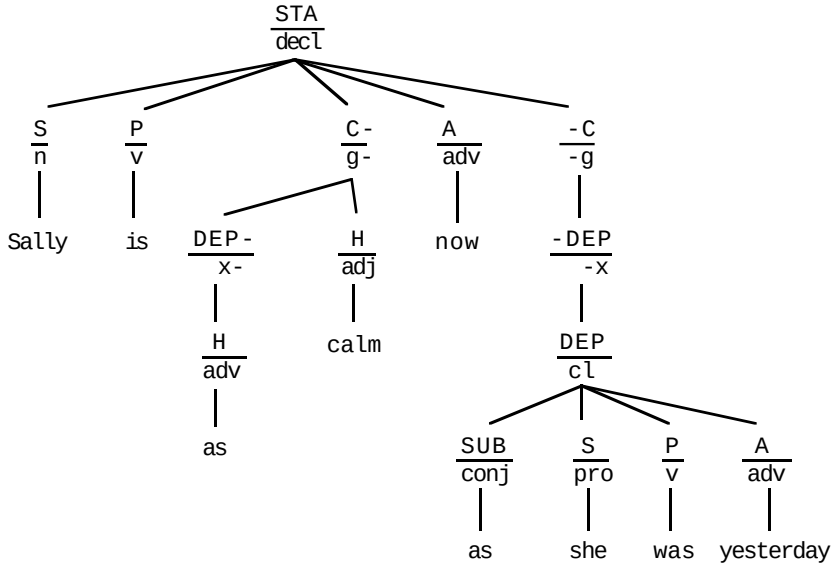
(4) *Enough unmarried women* turned up at their house on those evenings *for me to understand that they had my best interests at heart*. (S:g)

(5) *So ardently* had he been preaching the efficacy of prayer *that he now silently invoked the name of Diana for every desire that passed through his head*. (A:g)

In examples (1) to (3), the degree expression is realized discontinuously with an intervening adverbial. In (4) the discontinuity is caused by the postponement of a postmodifier in the subject group. In (5) the head and premodifier of the italicized adverb group have been fronted in order to highlight that part of the message, and as the adverbial begins with *so* this fronting is accompanied by partial inversion (see section 5.3.4). In all five examples, the discontinuity is clearly due to factors of weight and balance.

If we analyse constructions with syntactically compared adjectives and adverbs as internally discontinuous (stacking together the comparative element and the comparative basis), it is reasonable also to recognize internal discontinuity in examples (1) to (5), in addition to the discontinuity at clause level. Thus, arguably, in each case the premodifier

(*as, so, too, Enough, So*) could be analysed as a head of a discontinuous stack containing a specifying, dependent clause (*as she was yesterday, that people began to cry, to answer my questions over the phone*, etc.). On this interpretation, a sentence like *Sally is as calm now as she was yesterday* would be analysed in this way:



Discontinuous adjective groups are not only found in comparative constructions. Adjective groups containing heads like *comparable (to ...), different (from ...), difficult (to ...), easy (to ...), opposite (to ...), (im)possible (for, to ...), preliminary (to ...), similar (to ...)* and *suitable (for ...)* are often realized discontinuously:

> It falls into a *different* category *from the rest*.
>
> I don't imagine she was an *easy* person *to live with*.
>
> This was only a *preliminary* little gathering *to the one planned for the autumn*.

Considerations of weight and end-focus may lead to continuous post-modification instead:

> It falls into a category *very different from the rest*.
>
> I don't imagine she was a person *in any way easy to live with*.

This was only a little gathering *supposedly preliminary to the one planned for the autumn*.

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