Points of convergence between functional and formal approaches to syntactic analysis

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1. Introduction

The aim of this paper[1] is to discuss different approaches to linguistic theory and their relation to empirical issues in syntactic analysis. It is based on our work within a project on object positions carried out at the University of Aarhus 2005-2007. The purpose of the project was to combine and compare what is usually labelled formal and functional approaches to linguistics.

Our general experience from the project is that the two approaches, in spite of a number of differences, have a high number of fundamental assumptions in common, and that it is therefore not only possible but also fruitful to approach the same problems and phenomena

from the two perspectives. As we shall try to show, a great deal of compatibility may be found between the two approaches, in the sense that the conclusions reached by one side by no means exclude what the other side claims concerning the same phenomenon.

In sections 2 and 3, we shall first be concerned with the common ground for the formal and functional approaches. In section 4 we discuss the two approaches in detail, in section 4.1 a typical functional analysis of clause structure and in 4.2 a typical formal one, before we present the points of convergence between the analyses in section 5. In section 6 and the appendix, we discuss some more related ideas, viz. syntactic movement in section 6 and the status of constructed examples in the appendix. Section 7 is the conclusion.

2. Theoretical and empirical linguistics

The way we see it, both formal and functional approaches completely agree with the following dictum from Bourdieu (1988:774–775)[2]:

(1)   *Theory without empirical research is empty, empirical research without theory is blind*

i.e. that linguistic theory needs empirical support and linguistic data need theoretical interpretation. The latter of these two points is made more forcefully by Neil Smith (1989:32):

(2)   *Any attempt to provide explanations presupposes a theory. The difference between so-called theory-neutral and theoretically based explanations is not really one between the presence and absence of an appeal to theory, but a difference in the sophistication and depth of the two theories involved.*

The two approaches also agree that the optimal theoretical hypothesis is the one that by means of the fewest auxiliary assumptions ("the lowest cost") yields the highest number of further testable predictions ("the highest returns"), cf. e.g. the "empirical principle" of Hjelmslev (1943:11). The formal and the functional approaches only start to disagree when it comes to deciding whether the higher returns given by hypothesis A over other hypotheses B or C justify the higher costs (also e.g. in terms of abstractness) that hypothesis A might have compared to its competitors.

An objection against rather abstract approaches, which has been raised e.g. against formal approaches such as generative linguistics is that the formal approaches are far too specific and furthermore hampered by being a priori. But the claim against an a priori

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[2] Bourdieu's formulation here is a paraphrase of Kant (1929:93):

Thoughts without content are empty, intuitions without concepts are blind. [...] The understanding can intuit nothing, the senses can think nothing. Only through their union can knowledge arise. But that is no reason for confounding the contribution of either with that of the other; rather it is a strong reason for carefully separating and distinguishing the one from the other.

approach is, from a philosophical point of view, untenable.

(3) *About thirty years ago there was much talk that geologists ought only to observe and*
not theorise; [...] at this rate a man might as well go into a gravel-pit and count the
pebbles and describe the colours. How odd it is that anyone should not see that all
observation must be for or against some view if it is to be of any service.

<div align="right">(Charles Darwin in a letter to Henry Fawcett 18.09.1861,
cited e.g. in Gould 1992 and in Shermer 2001)</div>

(4) *Bien loin que l'objet précède le point de vue, on dirait que c'est le point de vue qui crée*
l'objet, et d'allieurs rien ne nous dit d'avance que l'une de ces manières de considérer
le fait en question soit antérieure ou supérieure aux autres.

<div align="right">Ferdinand de Saussure (1972:23)</div>

[Far from the claim that the object has priority over the approach, one could say that the point of view creates the object, and by the way nothing guarantees us in advance that one method of approaching the facts in question is more fundamental or better than any other.]

No systemic approach to linguistics can avoid a priori concepts completely, and hence the claim that a priori concepts are necessarily invalid would seem to belong to an out-dated version of positivism. The whole conception of the clause consisting of phrases as found in traditional grammar is as much a priori as any generative model.

3. Radicalism within the formal and the functional approaches

Often thought of as an across-the board-opposition in linguistics, the distinction between formal and functional approaches actually covers many different aspects worth considering separately.[3]

Both formal and functional approaches are concerned with linguistic form, e.g. how a word is pronounced, what it means, or where it occurs in the sentence. Formal linguistics is primarily interested in the linguistic form itself, i.e. in the internal structures of language. Functional linguistics is primarily interested in the content and the communicative function that a linguistic expression has in the world outside language, i.e. in the connection between language and external factors.

There are, however, numerous intermediate positions. The main feature distinguishing the different versions of each approach is how "radical" it is. Radical formal linguists assume content and communicative function to be of no interest whatsoever, whereas radical functional linguists take content and communicative function to be absolutely essential for the

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[3] For a discussion of a linguistic tool which is seen by some as being particular to formal linguistics, namely that of constructed or elicited examples, see the appendix.

distinctions made in the actual analysis (cf. Newmeyer 1998:17).

Proponents of the non-radical versions of the two approaches are still able to interact and indeed learn from one another. This is witnessed e.g. by the increasing interest on the part of formal linguists in discourse phenomena (e.g. Rizzi 1997, Newmeyer 1998, Platzack 2001a,b).

In fact, one might interpret the situation as a state of complementarity rather than as a state of competition. The observations that lead to the recognition of the formal levels, find their interpretation in the functional domains. The functional domains on their side can only be deemed relevant for the investigation if they find a formal expression, otherwise they must be considered irrelevant. In this sense the rivalry between the two approaches makes little sense.

Furthermore, certain aspects of the two approaches are very closely related, even if sometimes the conclusions drawn are interpreted in quite different ways. One of these aspects is the underlying assumption that language is a system. System in this context is not to be taken in the Saussurean way, considering language to be a superindividual phenomenon. Instead, both the formal and the functional approaches agree on the basic assumption that language is situated in the mind, and that it interacts with the cognitive non-linguistic apparatus in the mind. In other words, both formal and functional linguists would seem to agree that investigation into cognitive and psychological features of the brain is crucial to an understanding of linguistic phenomena. This constitutes what we might call the Chomskyan heritage in modern linguistics. Chomsky's conception of language as a feature of the mind has become a *conditio sine qua non* for linguistic analysis, e.g. in the way that almost all linguists find the distinction between competence and performance to be a useful tool.

From the conception of language as systemic follows another source of convergence, namely the need to investigate through systemic approaches. Classic formal tests such as commutation, substitution, conjunction, and deletion cannot be claimed as the exclusive property of either the formal or the functional approach alone. While such discovery procedures may at first glance seem more in line with the formal approach, both approaches actually need them and both approaches also make use of them. It should be remembered that functional linguists need to identify formal distinctions in order to postulate the functional superstructure.

4. Clausal architecture in the formal and functional approaches

So far, we have set out similarities between formal and functional approaches on a general, meta-theoretical level. We now want to continue on a more concrete level, with a comparison between a typical functional analysis of Danish clause structure in section 4.1 and a typical formal one in section 4.2.

As the typical functional analysis we have chosen the analysis most frequently employed by functional linguists in Scandinavia, namely the sentence model of Paul Diderichsen (1936, 1941, 1946, 1964). Even though this particular model may not be too well-known outside Scandinavia, it contains enough essential functional features to make it an

interesting representative for functional linguistics.

As the typical formal analysis we have chosen an analysis very frequently employed by formal linguists, namely an analysis whose main features are common to the principles and parameters framework (Chomsky 1986) and the minimalist programme (Chomsky 1995).

4.1 Diderichsen's fields and slots

In Diderichsen's (1946) so-called topological approach, two levels are postulated in the analysis of the clause: a field level and a slot level. The slots may be defined in different ways, but in general they are tied to certain phrase concepts and their definitions (see Jørgensen, to appear). In Diderichsen's original approach, the slots were defined by the morphological material they contained. Thus one slot would contain the finite verb, another would contain a noun phrase in nominative etc. (see Diderichsen 1964:371). In certain cases, slots could encompass many different elements, e.g. the adverbial slots.

Slots may encompass constructions of different kinds, e.g. relative clauses may be contained in nominal slots. The slots are determined by the main verb carrying the valency and the constructions attaching directly to it, either through valency or through adverbial modification.

Within Diderichsen's line of thinking, constituents are shown to be justified mainly by the method of isolation in the front position, i.e. a word sequence is a constituent if it can precede the finite verb in a Danish main clause. Thus (5a,b) show *den blå bil* and *den røde bil* to be constituents, whereas (5c) does not show that *bil kørt* is a constituent:

(5) a. <u>Den blå bil</u>   er   kørt   ind i den røde bil
          The blue car   *has*   *driven* *in to* *the red car*

     b. <u>Den røde bil</u>   er   den blå bil   kørt   ind i
          The red car   *has* *the blue car*   *driven*   *in to*

     c. *<u>Bil kørt</u>   er   den blå   ind i den røde bil
          Car driven   *has* *the blue*   *in to* *the red car*

Apart from this relatively formal approach, we find little to motivate the organisation of constituents. Diderichsen hesitated to include relational phenomena (valency, subjects and objects) in his syntactic universe. In his last theoretical approach (Diderichsen 1964), he tried – not quite successfully – to argue for the choice of nominal slots on the basis of case, an approach that collapsed due to the complicated conditions on pronominal case in Danish.[4]

Usually the criteria used to define such slots were of two kinds. One criterion was that at a certain level of analysis, certain phrases were considered equal, e.g. all final adverbs, and were therefore bundled into one and the same slot. Another criterion was what we might now

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[4]   See Jørgensen (2000c: 53-90, 101-135), for a discussion of the complications of case form distribution in Danish, and how relational facts may be incorporated into the sentence model.

call scrambling: If two elements could exchange positions, they would belong to the same slot.

These criteria, however, must be used with care. Consider the medial adverbs. From a part-of-speech point of view, medial adverbs are defined as a group and may be confined to one slot. If scrambling, however, were the criterion, strict ordering rules might be observed between several minor groups of medial adverbs, a fact that could be used to postulate more than 20 different medial adverbial slots, each of them having only a very restricted number of tenants and hence only present in very few cases.[5]

The field level on the other hand is an overall level of organisation. Diderichsen's original approach used the verbal slots as boundaries for the fields. A Danish main clause was seen as split up into three fields, (6a): one before the finite verb slot (**v**), one starting with the same finite verb slot, and one starting with the infinite verb slot (**V**). A somewhat different but similar analysis was given for an embedded clause, (6b).[6]

(6) a. Main clause:

Foundation field	Nexus field (Central field)			Content field		
F	v	n	a	V	N	A
Saa *Then*	har *has*	han *he*	vist *probably*	glemt *forgotten*	Galocherne *the galoshes*	her *here*

Diderichsen (1946:162)

b. Embedded clause:

Conjunctional field	Nexus field (Central field)			Content field		
k	n	a	v	V	N	A
... fordi *... because*	han *he*	vist *probably*	har *har*	glemt *forgotten*	Galocherne *the galoshes*	her *here*

cf. Diderichsen (1946:186)

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[5]   The ordering rules of the medial adverbs were described in Mikkelsen (1911: 650-653). See also Cinque (1999:77-106) and Nilsen (1997).

[6]   Abbreviations and Danish terminology used in (6) (cf. Diderichsen 1946, 1964):

F	foundation (≈ topic, theme)	"fundament" (1946:190)
v, V	verbal	"verbal" (1946:169)
n, N	nominal	"nominal" (1946:169, 1964:369)
a, A	adverbial	"adverbial" (1946:179)
k	conjunction	"konjunktional" (1946:183)

These two models have been very influential, as can be seen from the many treatments that are based on them. The main clause model and embedded clause model above form the basis of the analyses in Hansen (1977:44, 72-74), Heltoft (1986a), Allan et al. (1995:491-498), Jørgensen (2000b:63-78), Togeby (2003:56, 72, 97-99) and Hansen & Heltoft (2003:172-173), among others.

As opposed to the slot level, the field level is definitely not a matter of constituency, as argued in Bjerre (forthcoming), where the field level of the Diderichsen model is discarded for this very reason. As may be deduced from the original names in Diderichsen's papers, the intention behind these fields was to define special areas of the clause where certain morphemes with particular functions in the semantic superstructure find their place. This fits well with the semantic descriptions he gave.

Heltoft (1986a,b) and, following him, Jørgensen (1993, 2000c: 86-89) have suggested a different layout of the fields: A core field encompassing roughly everything that directly depends on the main verb (including the subject), and a frame field containing elements that fit the sentence into its textual and pragmatic context. To the right of the core field, a localisation field may be added, which however is not present in all versions. One version of this model looks as follows, again with the main clause version first, and then the embedded clause version: [7]

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	frame field	"rammefelt"
	core field	"kernefelt"
	localisation field	"lokaliseringsfelt"
F	foundation field (see below)	"fundamentfelt"
R	reality field	"realitetsfelt"
	subject	"subjekt"
	content field	"indholdsfelt"
X	[anything]	
V_f	finite verb	"finit verbum"
S	subject	"subjekt"
SA	sentential adverbial	"sætningsadverbial"
V_i	non-finite verb (although in (7b), V_i contains the finite verb, cf. (16) further below)	"infinit verbum"
DO	direct object	"direkte objekt"
P	(non-temporal) predicate	"prædikativer"
BA	bound adverbials	"bundne adverbialer"
TSA	time and place adverbials	"tids- og stedsadverbialer"
K	conjunction	"konjunktion"

The term *fundamentfelt* (approximately. 'foundation field') is in principle a rhetorical term, meant to signify a position in the Danish sentence that transmits the rhetorical clue of the sentence (≈ topic, theme). It is defined formally as the position in front of the main verb in

(7) a. Main clause:

Frame field		Core field						Localisation field
F	R	Subject		Content field				
X	V_f	S	SA	V_i	DO	P	BA	TSA
måske	har	de	først	sendt	brevet	ud	(-)	i går
maybe	*have*	*they*	*first*	*sent*	*letter-the*	*out*		*yesterday*
hun	har	(-)	(-)	gjort	det	færdigt	i hånden	(-)
she	*has*			*done*	*it*	*finished*	*by hand*	

(adapted from Hansen & Heltoft 2003:172)

b. Embedded clause:

Frame field	Core field						Localisation field
R	Subject		Content field				
K	S	SA	V_i	DO	P	BA	TSA
hvis	de	først	har sendt	det	ud	(-)	i går
if	*they*	*first*	*have sent*	*it*	*out*		*yesterday*
fordi	hun	(-)	har gjort	det	færdigt	i hånden	(-)
because	*she*		*has done*	*it*	*finished*	*by hand*	

(adapted from Hansen & Heltoft 2003:173)

The terms here relate to a conception of the sentence in which the area around the subordinating conjunction (and in the main clause, around the finite verb) is seen as representative of the semantic conditions framing the sentence in the context and the rest of the sentence is seen as a core around which the local semantic content is structured. This bipartite semantic conception is comparable to the semiotic approach of A.-J. Greimas, splitting meaning into the *énonciation*, the local pragmatic situational meaning, and *énoncé*, the non-situational meaning which may be seen as transferable to other situations. The localisation field is in between these two inasmuch as localisation is part of both sectors, *énonciation* and *énoncé* alike (cf. Greimas 1966, Greimas & Courtés 1979, and Togeby 2003:10).

Regardless of how they are defined exactly, the fields do not represent syntactic constituents in a strict application of Diderichsen's model, as they link up with semantic and

main clauses. In the syntax of Danish, this position is the only position that is open to different types of syntactic phrases.
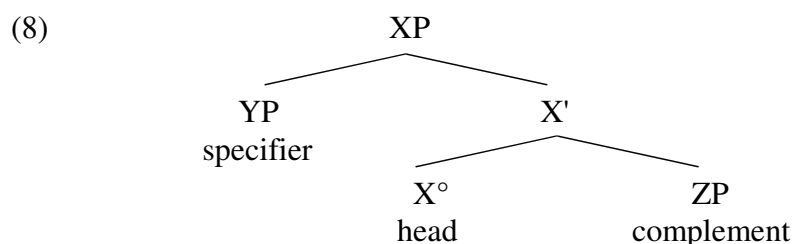
functional essentials rather than with distributional facts. Neither of the two field structures (as opposed to slot structures) reflects strict distributional facts about a Danish sentence, in the sense that the nexus field cannot be shown to be a constituent by means of the classic tests such as commutation, substitution, conjunction, and deletion mentioned in section 3 above. Notice that it is nevertheless possible to relate the Diderichsen approach to formal generative approaches relatively closely, cf. section 5.1 below.

Even though the division into fields is thus to a considerable extent based on semantic and functional considerations, sometimes the distributional facts have to take priority. To take just one example, the Diderichsen model puts the subject in the middle field slot where it belongs as far as the sequence of the words in the clause is concerned, even if this does not agree too well with the semantic and functional considerations. Following semantic and functional considerations, the subject would have to have a position within the content field (as it is closely related to the main verb, just like the object is). However, as no actual subjects occur in such a position, the Diderichsen model has to live with the fact that the subject occurs within one field (the nexus field) although it at least in some sense ought to be part of a different field (the content field).

Diderichsen (1941:21, 35-36) links this to a diachronic development of subjecthood from what was originally that of *nominativus verbi* (the nominative of the verb), i.e. closely attached to the verbal stem and hence connected with the content side, towards the present state, where the subject is part of the actualisation of the meaning and therefore is part of the nexus. Even if the idea of such a diachronic development may not be tenable, the double nature of subjecthood is described well in this way.[8]

4.2 Generative tree structures

In a generative analysis, syntactic constituents all have the same basic structure, namely one shown in (8), often referred to as "X-bar structure":

(8)
```
                        XP
              ┌─────────┴─────────┐
             YP                   X'
          specifier         ┌─────┴─────┐
                           X°           ZP
                          head      complement
```

There are three projection levels in (8):

(9)   XP   = phrase   / the maximal projection of X

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8   Notice the parallel with the "VP-internal subject hypothesis" in recent generative theory where the subject is taken to start out from the specifier position of VP and move from there into the specifier position of IP (cf. Haegeman 2006:247-262 and references therein). For reasons of exposition, this movement has been left out of (13) and (15) below.

X' = X-bar / the intermediate projection of X
X° = head / the minimal projection of X (= e.g. a word or an even smaller unit)

Saying that XP and X' are projections of X expresses the idea that these constituents are built up around X°, such that i.e. [PP *across the hall*] is built around [P° *across*].

X (and also Y, Z, and W) in (8), (9), and (11) may stand for one of the following categories:

(10)	**lexical categories (word classes)**	**"functional" categories**
	N (noun)	C ("complementiser"
	V (verb)	= subordinating conjunction)
	P (preposition)	I (inflection)
	Adj (adjective)	D (determiner)[9]
	Adv (adverb)	etc.

A head is always the head of its own phrase (its own maximal projection), and all maximal projections have a head (are endocentric). Inside a phrase, there is also room for two other phrases, namely in the specifier position and in the complement position.

The position of the so-called specifier position is normally considered to be fixed, i.e. it is taken to always be the left daughter of XP. The sequence of the head and the complement may on the other hand vary, depending on the language.

Both heads and phrases (minimal and maximal projections) may move. Heads may only move into other head positions, and phrases may only move into other phrase positions. X-bar constituents (intermediate projections) may not move at all.

Both heads and phrases may be adjoined to other constituents. Heads may only adjoin to other heads, and phrases may only adjoin to other phrases. X-bar constituents may not be adjoined at all.

Adjunction takes the following form, where the adjoined constituent, WP/W°, may be adjoined either to the left, as shown, or to the right of the XP/X° that it modifies:

(11) a.   XP   b.   X°
        WP   XP   W°   X°
     adjoined position   adjoined position
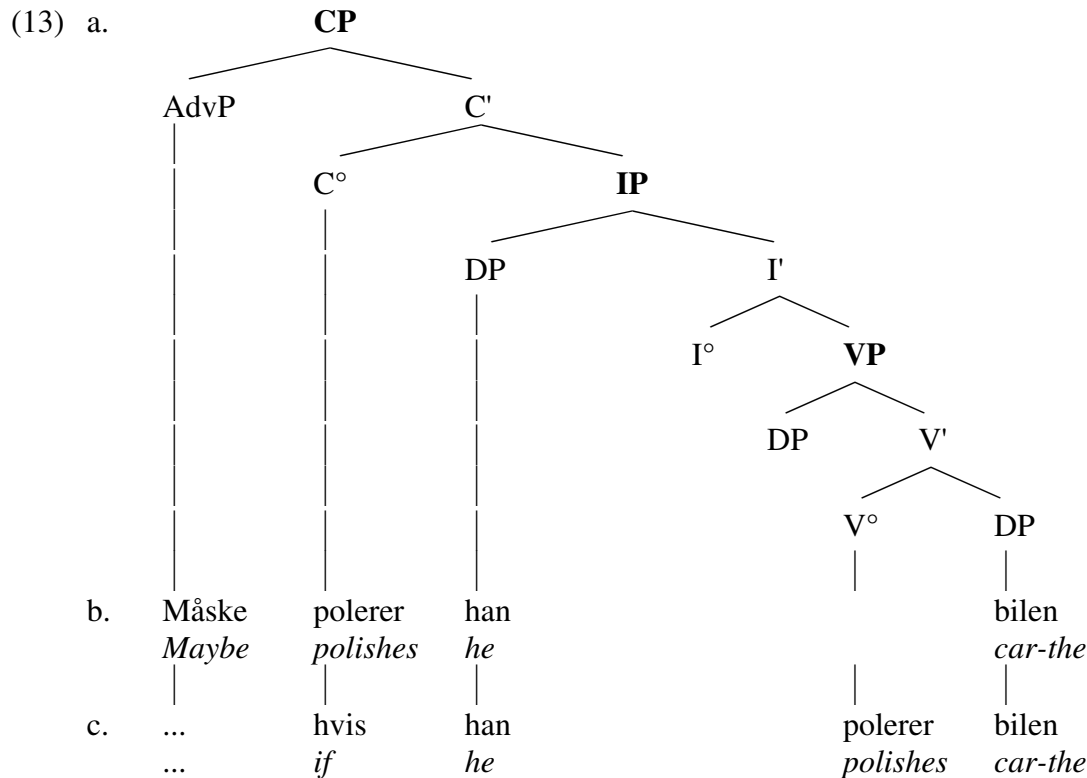
In a somewhat simplified generative analysis, the structure of a sentence (irrespective of whether it is a main or an embedded clause) is as follows:

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[9] A determiner such as *den* 'the' is here seen as the head (D°) of the Determiner Phrase (DP) *den blå bil* 'the blue car'. The complement of D° is the NP *blå bil* 'blue car', and the head (N°) of this NP is *bil* 'car'.

(12) A clause is a CP,
      the complement of its head (= C°) is an IP, and
      the complement of the IP's head (= I°) is a VP

For a sentence with no auxiliary verb and with a (mono-)transitive main verb the structure looks as follows for both a main and an embedded clause:

(13) a.

```
                        CP
              ┌─────────┴─────────┐
            AdvP                  C'
             │           ┌────────┴────────┐
             │          C°                 IP
             │           │        ┌────────┴────────┐
             │           │       DP                 I'
             │           │        │         ┌───────┴───────┐
             │           │        │        I°              VP
             │           │        │               ┌────────┴────────┐
             │           │        │              DP                 V'
             │           │        │                           ┌─────┴─────┐
             │           │        │                          V°          DP
             │           │        │                           │           │
      b.   Måske      polerer    han                                     bilen
           Maybe      polishes   he                                      car-the
             │           │        │                           │           │
      c.    ...        hvis      han                        polerer      bilen
            ...         if        he                        polishes     car-the
```

(where movement has taken place in (b), of the finite verb *polerer*, from V° to C°, cf. section 6.2 below.)

Also in the generative analysis, there are tests for constituency, e.g. substitution tests or movement tests (the latter being a version of the commutation test). The underlying idea is that if two or more words (e.g. *the blue car*) may undergo substitution, (14b), or movement (14c) together, then they form a constituent, whereas if two or more words (*polished the blue*) cannot be substituted by anything, (14d), or cannot be moved, (14e), then one possible reason may be that they do not form a constituent:

(14) a.　　　　　　　　　Har　hun　poleret　den　blå　bil　?
　　　　　　　　　　　　Has　she　polished　the　blue　car　?

　　b.　　　　　　　　　Har　hun　poleret　<u>den　　　　</u>　?
　　　　　　　　　　　　Has　she　polished　it　　　　?

　　c.　<u>Den　blå　bil</u>　har　hun　poleret　　　　　.
　　　　The　blue　car　has　she　polished

　　d.　*　　　　　　　Har　hun　<u>xxxxx　　　　　</u>　bil　?
　　　　　　　　　　　　Has　she　xxxxx　　　　　car　?

　　e.　*<u>Poleret　den　blå</u>　har　hun　　　　　bil　.
　　　　　Polished　the　blue　has　she　　　　　car

(The asterisks in front of (14d,e) signal that these two examples are not well-formed. *xxxxx* in (14d) signals that no pronoun (or other proform) exists that can substitute for the string *poleret den blå* when *bil* is present in the clause but not included in the substitution.)

5. Points of convergence between the formal and functional approaches

5.1 Topological slots and their equvalents in the tree structure

As we said above, although there are a number of differences between the two approaches to linguistic analysis, there are also some points of convergence. One such point (even if the convergence is only partial) has to do with the slots in the Diderichsen analysis and what they correspond to in the generative analysis.

　　The generative structure in (15a) below corresponds to the basic generative structure in (13) above, with the addition that adverbials (and other adjuncts) may be adjoined both on the left side and on the right side of a VP. In (15a), the adverbial *again* is adjoined to the right of the VP *has polished the car with steel wool*.

　　The tree structure in (15a) can be directly compared to the simplified Diderichsen models of constituent order in modern Danish as illustrated in (15b) for main clauses and in (15c) for embedded clauses, cf. (6) and (7) above (and references there):

(15) a.

```
                        CP
                   ┌────┴────┐
                  XP         C'
                  │      ┌────┴────┐
                  │     C°         IP
                  │     │      ┌────┴────┐
                  │     │     DP         I'
                  │     │     │      ┌────┴────┐
                  │     │     │     I°         VP
                  │     │     │          ┌─────┴─────┐
                  │     │     │        AdvP          VP
                  │     │     │         │       ┌────┴────┐
                  │     │     │         │       DP        V'
                  │     │     │         │       │     ┌───┴────┐
                  │     │     │         │       │    V°        VP
                  │     │     │         │       │    │    ┌─────┴─────┐
                  │     │     │         │       │    │   VP          AdvP
                  │     │     │         │       │    │ ┌──┴──┐        │
                  │     │     │         │       │    │ DP    V'       │
                  │     │     │         │       │    │    ┌──┴──┐     │
                  │     │     │         │       │    │   V°    DP     │
```

b.	F	Nexus field				Content field		
	F	**v**	**n**	**a**		**V**	**N**	**A**
	Nu	har	han	igen		poleret	bilen	med ståluld
	Now	*has*	*he*	*again*		*polished*	*car-the*	*with steel wool*

c.	Conj. f.	Nexus field				Content field		
		k	**n**	**a**	**v**	**V**	**N**	**A**
		om	han	igen	har	poleret	bilen	med ståluld
		if	*he*	*again*	*has*	*polished*	*car-the*	*with steel wool*
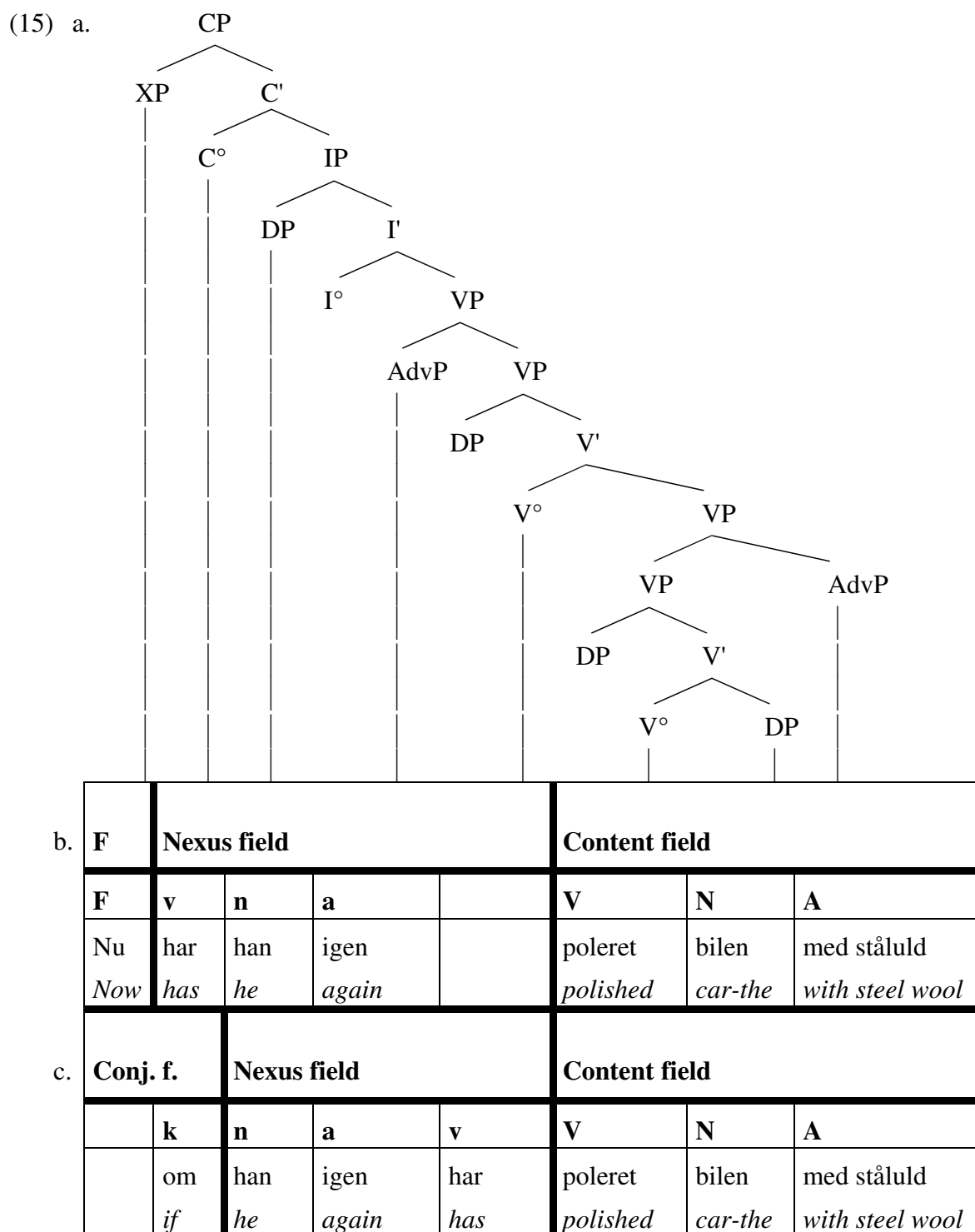
It is perhaps indicative of this convergence between formal and functional analysis that the first person to suggest the correspondence shown in (15b,c) between Diderichsen's analysis of Danish **main** clauses and Diderichsen's analysis of Danish **embedded** clauses was a generative syntactician, Christer Platzack (1985:71, fn 5). It is also interesting to note that this suggestion was in turn taken up by the functional syntactician Lars Heltoft (1986a:108), cf. also Hansen & Heltoft (2003), as shown in (7) above.

As may be seen in (15a,b,c), the slots in the Diderichsen analysis have directly

corresponding positions in the generative tree structure. The following list shows where either approach should be able to understand and build on insights gained in the other approach:

(16)   **Diderichsen (1946), cf. (6a,b)**   **Tree structures, cf. (13) & (15)**

   a.   F (foundation field)   = CP-spec

   b.   v (finite verb   = k (subordinating   = C°
        position in   conjunction
        main clauses)   position in
                                    embedded clauses)

   c.   n (subject position)   = IP-spec

   d.   a (medial adverbial position)   = position left-adjoined to VP

   e.   v (finite verb position in   = V° (the highest V° in the
        embedded clauses)   embedded clause)

   f.   V (non-finite verb position)   = V°
        (NB: only one V per clause)   (NB: only one verb per V°)

   g.   N (object position)   = DP-position which is the
                                                             complement of V°
                                                             (if V° is monotransitive)

   h.   A (final adverbial position)   = position right-adjoined to VP

Excursus:

One difference between the approaches is that if there are two or more non-finite verbs in a clause, the Diderichsen analysis takes them to make up one constituent, namely V, (ia), whereas in the tree structure this is not the case, (ib):

(i)   a.   ... at han ikke [$_v$ kan]   [$_V$ <u>have mødt</u>]   [$_N$ den nye minister]   personligt.
      b.   ... at han ikke [$_{V°}$ kan]   [$_{V°}$ <u>have</u>] [$_{V°}$ <u>mødt</u>]   [$_{DP}$ den nye minister]   personligt.
           ... that he not can   have met   the new minister   personally

The two approaches agree that *den* and *nye* and *minister* (i.e. the direct object) form a constituent, as supported by the observation that they can occur together in other positions in the clause:

(ii)   [<u>Den nye minister</u>] kan han ikke have mødt personligt.
          The new minister can he not have met personally

Have and *mødt* (i.e. the two non-finite verbs), however, do not occur together in other positions in the clause, and so whether they make up a constituent or not is an open question.

The Diderichsen analysis takes them to occupy one and the same slot, (ia), because they occur to the right of one established constituent (the finite verb) and to the left of another established constituent (the object).

In the tree structure analysis, (ib), however, it is seen as crucial that there is a constituent that consists of only one of the non-finite verbs (together with the object and the adverbial):

(iii)   [Mødt den nye minister personligt] kan han ikke have,
                          men han kan måske godt have talt i telefon med hende.
            Met the new minister personally he cannot have
                          but he can perhaps well have talked in telephone with her

The point here is that if the two non-finite verbs together made up a constituent, then other constituents (e.g. the initial constituent in square brackets in (iii)) should contain **either** all of this constituent **or** no part of it (i.e. it should contain **either** both non-finite verbs **or** none of them). Since this is not the case, because the bracketed constituent in (iii) contains one but not the other non-finite verb, the conclusion in the generative analysis has to be that the two non-finite verbs do not make up a constituent (as noted in e.g. Vikner 1999a:87 and Bjerre 2007).

It is not a particularly constructive line of inquiry to debate which model makes most sense from a scientific point of view. The generative model might very well fall victim to Occam's razor if the only task for syntactic theory should be to account for the syntax of Danish, as it assumes many more positions than are needed to account for the actual items of Danish syntax. In this sense a sentence model of the Diderichsen type may be sufficient to account for Danish syntax.

As has been demonstrated from time to time (Askedal 1986, Bleken 1971, Bruaas 1970, Jørgensen 2000c, Jörgensen & Loman 1970, Lindberg 1973, Platzack 1985, Thorell 1973, and many others), this type of model is easily adapted to the other Mainland Scandinavian languages. There is furthermore a comparable topological tradition in German and Dutch linguistics (cf. e.g. Wöllstein-Leisten et al. 1997:53-75, Shannon 2000:146, and references therein), but there are very few topological for any other languages. It would seem that topological approaches are particularly likely to be suggested for languages that are V2, cf. also that when topological approaches have been suggested to e.g. English or French, they have mainly been suggested by linguists who want to compare them to a V2-language, e.g. Diderichsen (1953), Hartvigson (1969), Herslund (2006).

Linear slot models (i.e. topological models) cannot make any larger contributions to direct comparison with e.g. Slavic languages with a relatively free phrase ordering, as emphasized in Askedal (1986:33-34). Only if the ordering rules underlying the model are taken to be reflections of e.g. case and information structure, can a sentence model of the

Diderichsen type form the basis of comparison with more distant languages. This is a point where e.g. a generative model is more likely to be successful, given that the structures suggested for the analysis have a generality that makes it possible for them to encompass languages of a widely differing nature.
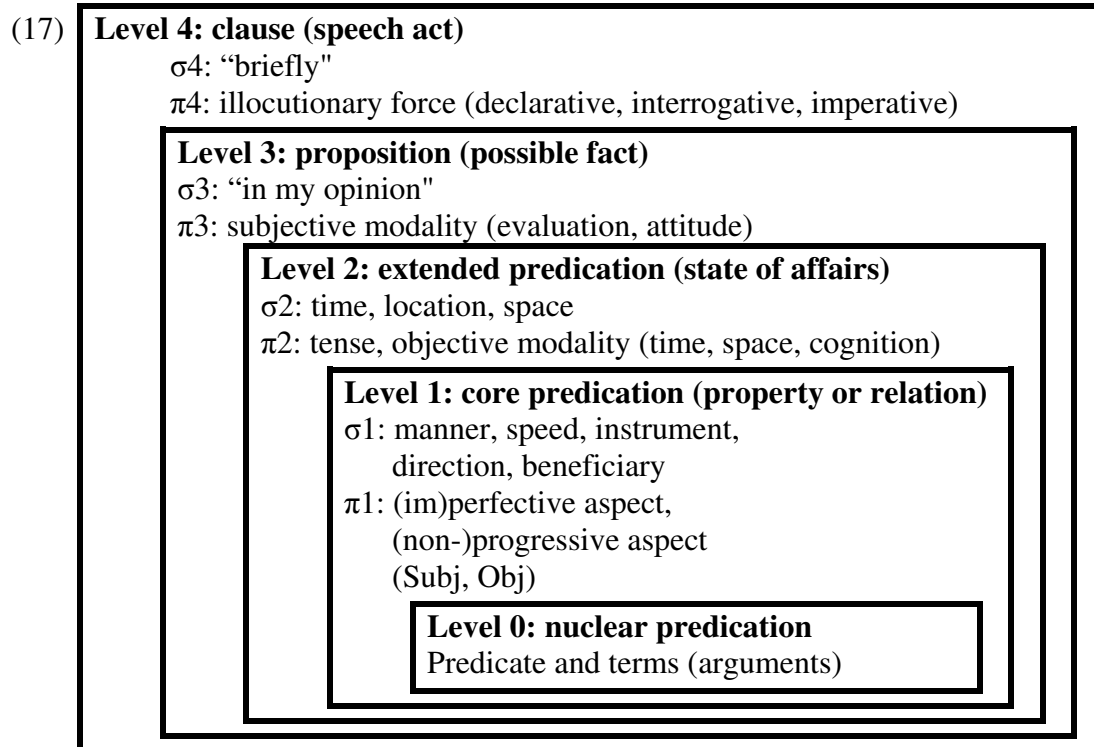
Take as an example the I°-position, which is one of the positions in the generative tree (15a) that are always empty in Danish, and which would therefore seem to be superfluous. However, in French, in Icelandic and in older stages of Danish, finite verbs occur in I°, and this position in the structure can therefore be a starting point for saying something principled about differences between languages (as e.g. in Vikner 1997, 1999b, 2005a). When it comes to the topological models, different languages need different (pairs of) models in the Diderichsen view (one pair for Danish/Swedish/Norwegian as in (15b,c), another pair for old Danish/Icelandic, cf. Diderichsen 1941:89, and a completely different model for e.g. German, cf. e.g. Wöllstein-Leisten et al. 1997:53-75, etc.). Such an approach would therefore not give any principled reason why Danish does not follow the model for German or why German does not follow the Danish one. This could be seen as the price paid by the Diderichsen model(s) for not containing any positions which are never filled.[10]

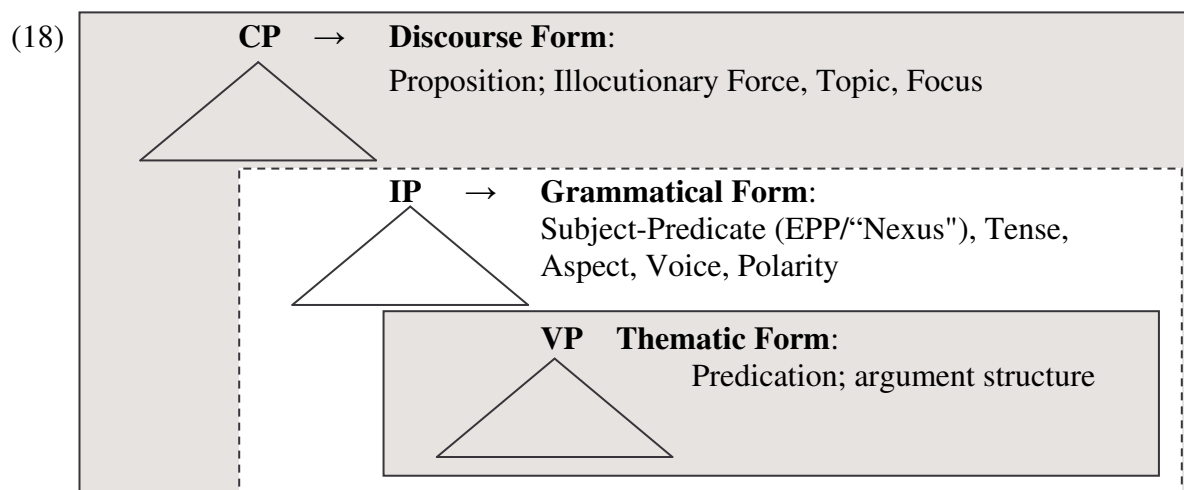## 5.2 Topological fields and their equvalents in the tree structure

Another point of convergence concerns the Diderichsen fields and what they correspond to in the generative tree.

The main parts of the generative structure, i.e. CP, IP and VP, can be seen as convergent with commonly accepted domains in functional analyses of clause structure. The layered structure of e.g. Harder (2005:101-110) is found in "classic" Dutch functional grammar (Dik 1997:67, here cited from Christensen 2005:51), where each level takes in more and more constituents of the clause, and where π stands for "grammatical operators" and σ for "lexical satellites" (e.g. adverbials):

---

[10] The other two positions in the generative tree (15a) that have no equivalents in the Diderichsen analysis in (15b,c) are the specifier positions in the two VPs. As mentioned in footnote 8 above, a number of formal analyses take these positions to have contained the subject at earlier stages of the derivation.

(17)
```
┌─────────────────────────────────────────────────────────────┐
│ Level 4: clause (speech act)                                 │
│     σ4: "briefly"                                            │
│     π4: illocutionary force (declarative, interrogative, imperative) │
│  ┌──────────────────────────────────────────────────────┐   │
│  │ Level 3: proposition (possible fact)                 │   │
│  │ σ3: "in my opinion"                                  │   │
│  │ π3: subjective modality (evaluation, attitude)       │   │
│  │  ┌────────────────────────────────────────────────┐  │   │
│  │  │ Level 2: extended predication (state of affairs)│  │   │
│  │  │ σ2: time, location, space                      │  │   │
│  │  │ π2: tense, objective modality (time, space, cognition) │  │   │
│  │  │  ┌──────────────────────────────────────────┐  │  │   │
│  │  │  │ Level 1: core predication (property or relation) │  │  │   │
│  │  │  │ σ1: manner, speed, instrument,           │  │  │   │
│  │  │  │     direction, beneficiary               │  │  │   │
│  │  │  │ π1: (im)perfective aspect,               │  │  │   │
│  │  │  │     (non-)progressive aspect             │  │  │   │
│  │  │  │     (Subj, Obj)                          │  │  │   │
│  │  │  │  ┌────────────────────────────────────┐  │  │  │   │
│  │  │  │  │ Level 0: nuclear predication       │  │  │  │   │
│  │  │  │  │ Predicate and terms (arguments)    │  │  │  │   │
│  │  │  │  └────────────────────────────────────┘  │  │  │   │
│  │  │  └──────────────────────────────────────────┘  │  │   │
│  │  └────────────────────────────────────────────────┘  │   │
│  └──────────────────────────────────────────────────────┘   │
└─────────────────────────────────────────────────────────────┘
```

The same layered structure is also found in the more recent versions of generative linguistics, cf. the following illustration adapted from Christensen (2005:30), which is in turn based on Platzack (2001a,b):

(18)

CP → Discourse Form:
Proposition; Illocutionary Force, Topic, Focus

IP → Grammatical Form:
Subject-Predicate (EPP/"Nexus"), Tense, Aspect, Voice, Polarity

VP Thematic Form:
Predication; argument structure

At first sight, this convergence between functional grammar and generative syntax may seem not to include the Diderichsen model: Whereas each of the levels in both (17) and (18) contains the next lower level, the Diderichsen fields are discrete entities, which do not contain each other. This difference may be less crucial than one might expect, however, for two reasons.

One reason is that some of the proponents of Diderichsen take some fields to be part of other fields, e.g. in Hansen & Heltoft (2003:172), the content field is part of the core field, as

shown in (7) above (similarly in Togeby 2003:268 and Blom 2006:43, and actually also in Diderichsen 1946:186, text above the tables).

The second and more important reason is that even though Diderichsen's fields are not part of each other, the insights are basically the same in all three frameworks: The generative view of what happens at the IP-level (which comprises the VP, cf. (18)) or Dik's (1997:67) view of what happens at his level 2 (which comprises level 1, cf. (17)) are both very much parallel to Diderichsen's view of what happens in the nexus field, even if the content field is not part of the nexus field, cf. (6):

(19)	Foundation field	Orientation towards the context of the sentence
		Discourse-relevant elements
	Nexus field	Interface between communication and content,
		e.g. polarity, aspect
	Content field	Organisation of content: actants, circumstantials

<div align="center">(based on Diderichsen 1941:35; Togeby 2003:50-51; Heltoft 2005:115-117)</div>

This is because Diderichsen's nexus field corresponds to those parts of the generative tree which are part of the IP but not part of the VP or those parts of functional grammar's level 2 which are not part of level 1.

Summing up so far, in sections 4.1. and 4.2, we presented one particular functional and one particular formal approach, and in sections 5.1 and 5.2, we showed that there are many interesting convergences between the approaches.

6. Movement

Movement is an important device in many (but not all) formal approaches, but seems to be thought of as unnecessary in most functional approaches. However, whether an approach employs movement or not may not be so crucial. This is so because insights gained in an analysis assuming movement may often be useful also in analyses which do not assume movement (and vice versa). Many cases of "movement of an element" have corresponding descriptive devices in other approaches, e.g. possible alternative positions.

We shall look at three alleged movements, viz. the position of unstressed object pronouns, the position of the finite verb in main and embedded clauses, and finally what elements may precede the finite verb in main clauses. For ease of exposition, examples have been chosen which closely resemble those used in (15) above.

6.1 The position of unstressed object pronouns

In this section, we shall focus on what is known in functional approaches as *letledsreglen*, 'the rule of light objects', and in formal approaches as *object shift*.

The basic observation has two parts. One is that a non-pronominal object always

follows a medial adverbial (i.e. an adverbial in Diderichsen's **a**-position = an adverbial left-adjoined to VP), irrespective of whether the adverbial and the object are separated by a verb (20a,b) or not (20c):

(20) a. Nu har han faktisk poleret bilen med ståluld
        Now has he actually polished car-the with steel wool

     b. ... fordi han faktisk polerer bilen med ståluld
        ... because he actually polishes car-the with steel wool

     c. Nu polerer han faktisk bilen med ståluld
        Now polishes he actually car-the with steel wool

The second part of the observation is that an unstressed pronominal object follows a medial adverbial if the adverbial and the object are separated by a verb, (21a,b), or by an object that is stressed. Otherwise the unstressed pronominal object precedes the medial adverbial (21c). In fact, unlike the non-pronominal object, the unstressed pronominal object cannot immediately follow the adverbial, cf. the difference between (20c) and (21d), at least not in "standard" Danish (cf. Pedersen 1993 for dialectal differences in Danish and cf. Vikner 2005b and references therein for the other Scandinavian languages):

(21) a. Nu har han faktisk poleret den med ståluld
        Now has he actually polished it with steel wool

     b. ... fordi han faktisk polerer den med ståluld
        ... because he actually polishes it with steel wool

     c. Nu polerer han den faktisk med ståluld
        Now polishes he it actually with steel wool

     d. *Nu polerer han faktisk den med ståluld
        Now polishes he actually it with steel wool

In formal approaches (starting with Holmberg 1986, see Vikner 2005b and references therein), (21c) is an example of movement (object shift) of an unstressed pronominal object from its base position (as seen in (20a,b,c) and (21a,b)) to a different position to the left of the medial adverbial. Such a movement is seen as leaving a so-called trace behind in the base position, which in turn is part of the account for why nothing else can occur in the object position in (21c) although the pronominal object has left this position:

(22) Nu polerer han den faktisk bilen med ståluld
     Now polishes he it actually car-the with steel wool

As for the functional approaches, Erik Hansen (1970:121 = 2001:72) introduced a special slot in the sentence model to account for these pronouns, saying simply that if the V position remains empty, the unstressed object pronoun is placed in this special position to the left of the adverbial, but if the V position is filled, the unstressed object pronoun is placed in the normal object position. According to Hansen (1970:121), the object is thus placed in one position or the other, rather than the object moving from one position to the other.

Another possible analysis of these data is that the unstressed object pronoun cliticises to another element, as suggested in the functional approach by Jørgensen (1991, 2000a,c) and in the formal approach by e.g. Josefsson (1992). The differences between cliticisation and non-cliticisation hypotheses (with their consequences for what qualifies as a host for the clitic) are thus more substantial than the differences between the formal and the functional approaches.

For further discussion of object shift, see e.g. Vikner (2005b), Engels & Vikner (2006), and Bjerre (2007) and references in these works.

6.2 The position of the finite verb in main and embedded clauses

In Danish embedded clauses, the finite verb follows the medial adverbial and the subject, and immediately precedes the object, (23a), whereas in main clauses, the finite verb always occurs in the second position, preceding the medial adverbial and potentially also preceding the subject, (23b).

(23)	a.	...	fordi	han	faktisk	<u>polerer</u>	bilen	med ståluld
		...	*because*	*he*	*actually*	*polishes*	*car-the*	*with steel wool*
	b.	Nu	<u>polerer</u>	han	faktisk		bilen	med ståluld
		Now	*polishes*	*he*	*actually*		*car-the*	*with steel wool*

The property that the finite verb always occurs in the second position in the main clause (with the exception of main clause *yes/no*-questions and certain conditional clauses, where the finite verb is the first element, see (24a) below) is referred to as "verb second" or V2, and it is a property that Danish has in common with all other Germanic languages, with only one exception: English.

In formal approaches (starting with den Besten 1977, see Vikner 1995, chapter 3, and references therein), (23b) is an example of verb movement from V° (via I°) into C°. In other words, the verb starts out in V° in both (23a,b). In (23a) the finite verb stays in V°, whereas in (23b) it has moved (via I°) into C°. Also here, the movement is seen as leaving a trace behind every time it moves out of a position.

Almost all of the functional approaches have a slot, **v**, which has one position in embedded clauses, F-n-a-<u>**v**</u>-V-N-A, cf. (15c), and another position in main clauses, k-<u>**v**</u>-n-a-V-N-A, cf. (15b), rather than movement from one position to another. The fact

that even fewer functional approaches assume movement here (i.e. concerning the position of the finite verb) than assume movement concerning pronominal objects (section 6.1) or concerning the initial position in main clauses (section 6.3) is not surprising, given that the majority of functional analyses have two different and unrelated analyses for the main and the embedded clause.

6.3 The initial position in main clauses

As we mentioned above, the finite verb is always in the second position in Danish main clauses. This is so because there is room for at most one constituent in front of the finite verb in main clauses:

(24) a.

	Har	han	faktisk	poleret	bilen	med ståluld ?
	Has	*he*	*actually*	*polished*	*car-the*	*with steel wool?*

b.

Han	har		faktisk	poleret	bilen	med ståluld
He	*has*		*actually*	*polished*	*car-the*	*with steel wool*

c.

Faktisk	har	han		poleret	bilen	med ståluld
Actually	*has*	*he*		*polished*	*car-the*	*with steel wool*

d.

Bilen	har	han	faktisk	poleret		med ståluld
Car-the	*has*	*he*	*actually*	*polished*		*with steel wool*

e.

Med ståluld	har	han	faktisk	poleret	bilen	
With steel wool	*has*	*he*	*actually*	*polished*	*car-the*	

f.

Ståluld	har	han	faktisk	poleret	bilen	med
Steel wool	*has*	*he*	*actually*	*polished*	*car-the*	*with*

The observation that most constituents of the clause (but no more than one constituent) may precede the finite verb is the empirical basis for Diderichsen's foundational field. This does not mean, however, that there is movement e.g. of the adverbials in (24c,e) from their base positions to the initial position, indeed Diderichsen (1946:185, 190) only talks of placing a constituent in the initial position, even if some of his followers use movement terminology: Hansen (1977:55) directly talks about movement to the foundation field ("opflytning til fundamentfeltet"), and similar expressions are found in Jørgensen (2000b:69, 82) and Blom (2006:116, 139).

In formal approaches (starting again with den Besten 1977, see Vikner 1995, chapter 3, and references therein), (24b-f) are examples of movement of a phrase ("XP" or "maximal projection") from its base position (the empty spaces in (24b-f)) to the specifier position of

CP.

As in the two previous sections, the movement here is seen as leaving a trace behind every time it moves out of a position, so that the base position of the moved element cannot be filled by other material, compare e.g. (24b,d) to (25a,b):

(25) a. *<u>Han</u>   har   <u>hun</u>   faktisk   poleret   bilen   med ståluld
           He   *has* *she*   *actually* *polished* *car-the*   *with steel wool*

      b. *<u>Bilen</u>   har   han   faktisk   poleret   <u>cyklen</u>   med ståluld
           Car-the *has* *he*   *actually* *polished* *bicycle-the* *with steel wool*

In order to make a similar prediction within a functional approach, Blom (2006:136) introduces the notion of "topological government" where e.g. a subject in initial position governs the subject position, preventing it from being filled (24b) vs. (25a). It remains to be seen to which extent this and the notion of traces left by movement in the formal approaches will turn out to be notational variants of each other, but the similarities are clearly striking.

Movement and traces in the formal approaches correspond not only to Blom's (2006:136) "topological government" but also to the distinction between Diderichsen's two levels of analysis "topology" and "syntax", which Heltoft (1986a:121) describes as follows: "topological analysis (Where are which constituents placed?) and syntactic analysis (Which constituents may a sentence consist of and how may they be combined?)".

To see how this works in formal approaches, consider (24d), repeated below:

(26)   <u>Bilen</u>   har   han   faktisk   poleret   ___   med ståluld
          Car-the   *has* *he*   *actually* *polished*   *with steel wool*

Bilen is in CP-spec (according to Diderichsen's "topology": it is placed in the foundation field) and it has left a trace in its base position, the object position (according to Diderichsen's "syntax": it is the object of *poleret*). This is yet another case of the different approaches arriving at similar insights, but formulating them in ways that do not make the parallelisms immediately evident.

7. Conclusion

The conclusion is that syntacticians would be well advised to look further than the surface of the different formal and functional approaches. Despite the occasionally polemic tone, the various approaches actually have much in common, which also means that they may learn from each other's insights.

As one example, a functional syntactician should not dismiss too quickly formal analyses that appeal to the notion of movement. In actual fact, movement is just one way of representing the intuition that elements may or must occur outside of their canonical position,

while it also captures certain constraints on the relationship between the actual position (Diderichsen's "topology") and the base position (Diderichsen's "syntax") of a constituent.

Conversely, a formal syntactician should not dismiss too quickly functional analyses that appeal to the notion of fields. These may actually be more compatible with the formal notion of constituents, as represented by nodes in the tree, than might appear at first glance.

All syntacticians, regardless of theoretical persuasion, are ultimately interested in explaining language data. Given the complex subject matter of the discipline, we need all the help we can get, and therefore none of us can afford to ignore the results reached within 'the opposite camp'.

We would like to emphasise that this does not mean that linguists should forget all the differences between the two approaches, but merely that they should not forget that in spite of such differences, there are areas where the two approaches can learn from each other and build on each others' insights.

At the end of the day, linguists from the two approaches will still set out in different directions when it comes searching for an explanation, and this is as it should be, given that "the growth of knowledge depends entirely upon disagreement" (Popper 1994:x).

This quote is further explained in Popper (1994:93-94): "Since the method of science is that of critical discussion, it is of great importance that the theories discussed should be tenaciously defended. For only in this way can we learn their real power. And only if criticism meets resistance can we learn the full force of a critical argument."

Appendix. Constructed or elicited examples as data

Whereas formal linguists in general allow the use of constructed or elicited examples, not all functional linguists do, as seen in the following quote from de Beaugrande (1998:774):

(27) *Instead of painstakingly gathering corpuses of data in the field, you stay comfortably at home (or in your office) and rationalize about 'language' as represented by handfuls of data which you invent in your role as a 'native speaker', and which you analyze and describe in your role as a 'theoretical linguist'. The dualism of roles ensures that the native speaker (you) and the linguist (also you) reach the same conclusions without the slogging and protracted process of fieldwork constructing and testing hypotheses about a language you first have to learn*

(27) is part of a larger criticism of formal linguistics in general and of Chomsky in particular, and it should therefore be emphasised that it is actually not just formal syntacticians that use constructed examples. A great many functional syntacticians do the same, e.g. Diderichsen (1946) and Hansen (1977), to mention but a few.

In our view, it is actually not crucial whether or not an example is constructed, because, as formulated by Popper (1963:27), "there are no ultimate sources of knowledge". What is important is that based on relevant examples, empirical predictions are made as to what is

well-formed and what is ill-formed, i.e. predictions that can be checked against the intuitions of other native speakers and against corpora, and which can be compared to grammatical descriptions of the language in question.

It is obvious and uncontroversial that data invented just 'for fun' (or for some other reason, e.g. laziness, as alleged by de Beaugrande in (27) above) would constitute a highly annoying waste of other researchers' time, but this danger exists with any kind of data, constructed or not. Whatever the origin of their data, linguists, like all other scientists, should feel strongly obliged to check them constantly and thoroughly.

One potential response to the real problems pointed out in by de Beaugrande in (27) above might be to say that linguists should only accept as data something which have actually been said (as advocated by e.g. de Beaugrande 1998 himself, but not by all functional linguists). This approach immediately runs into two classic problems, familiar to any linguist who has ever worked with a corpus of data:

(28) a.   data which should not occur, do occur
      b.   data which should occur, do not occur

Concerning (28a), data which should not occur, but nevertheless do: Various kinds of ill-formed sentences are uttered every day by native speakers. Consider e.g. the following two widely reported slips of the tongue produced by George W. Bush (in Florence, South Carolina, on 11.01.2000, and in Townsend, Tennessee, on 21.02.2001, respectively):

(29) a.   Rarely is the question asked: <u>Is</u> our <u>children</u> learning?
      b.   Teach a child to read, and he or <u>her</u> will be able to pass a literacy test

If linguists were not allowed to check examples with the intuitions of native speakers, they would have to set up grammars and dictionaries for English that allow for such examples, even though native speakers would agree that they are not well-formed (*children* may not be the subject of a verb in the singular, and *her* may not be a subject at all).

Concerning (28b), data which should occur, but nevertheless do not occur: Various kinds of well-formed sentences only occur extremely rarely. One example is the so-called "parasitic gap" construction (see e.g. Taraldsen 1981:491-495 and Engdahl 1986:130), where the initial element (the underlined *how many of the books* in (30)) seem to be linked to two different empty object positions (gaps). *How many of the books* in (30) is linked both to the empty object position in the main clause (the object position of *borrowed*) and to the empty object position in the embedded adverbial clause (the object position of *buying*). It turns out that the empty object position in the embedded clause (the object position of *buying*) is parasitic on the first one, i.e. it is only possible to have an empty object position in the embedded clause if the object position in the main clause is also empty, cf. that if the main clause object position is filled by a pronoun, then the embedded object position cannot be left empty either, (31), but has to be filled as well, (32):

(30) a. <u>Hvor mange af bøgerne</u> har du lånt ___ i stedet for at købe ___ ?
    b. <u>How many of the books</u> have you borrowed ___ instead of buying ___ ?

(31) a. *Hvorfor har du lånt <u>dem</u> i stedet for at købe ___ ?
    b. *Why have you borrowed <u>them</u> instead of buying ___ ?

(32) a. Hvorfor har du lånt <u>dem</u> i stedet for at købe <u>dem</u> ?
    b. Why have you borrowed <u>them</u> instead of buying <u>them</u> ?

The point here is that if linguists' data sets consist only of utterances that have actually occurred, then it is fairly likely that constructions such as these would not be represented, and if linguists are not allowed to check with the intuitions of native speakers, they will have to set up grammars for Danish or English that do not allow for such sentences. This would then miss certain potentially crucial facts concerning Danish or English, given that native speakers agree that there is a significant difference in well-formedness between (30), which are possible, and (31), which are impossible.[11]

Returning to the de Beaugrande quote in (27) above, we are not saying here that constructed examples are any better than ones that have actually occurred, we are merely saying that constructed examples are a possible source of data, just like corpora are, and linguists cannot afford to disregard any type of data source. Notice also that neither constructed examples nor examples that have actually occurred are any good if they go against the intuitions of native speakers.

Furthermore, we agree that problems might occur if a linguist uses herself/himself as informant. However, these problems are particularly likely to arise if a linguist uses ONLY herself/himself as informant and no one else (i.e. the data should be checked and checked and checked again). As opposed to de Beaugrande in (27) above, we see no reason whatsoever to disqualify oneself as an informant (among others), nor do we see any reason for linguists to confine themselves to working only on languages that they are not native speakers of.

We are convinced that, everything else being equal, the group of linguists most suitable to work on a particular language is one that comprises both native speakers and non-native speakers of that language. On one hand every language has certain distinctions that are just so subtle that they are difficult for non-native speakers to be sensitive to, and on the other, non-native speakers often notice things which are taken to be trivial and hence uninteresting by the

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[11] Chomsky (1982:39) uses data such as these to argue for innateness, i.e. to argue for the point that some of the grammatical knowledge of their native language that native speakers possess must be there from birth. Chomsky's argument goes as follows: Because this construction is so rare, the knowledge about the difference in grammaticality between (30) and (31) that all native speakers possess - even though most may not realise this - cannot stem from having heard the construction before. Then this knowledge would have to be derivable, or at least partly derivable, from the innate part of the linguistic knowledge of native speakers.

native speakers.

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