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Paul Diderichsen's sentence-scheme as a glossematic construct¹

Henrik Jørgensen

Paul Diderichsen, professor of Scandinavian Languages at the University of Copenhagen from 1949 until his early death in 1964, is probably the most influential figure within the field of modern Danish language study. His development as a linguist went through three stages: in the initial phase, concluded in the mid-1940s, he was greatly influenced by the brand of structuralism-cum-traditional-philosophy advanced by Viggo Brøndal. After WWII, Diderichsen joined Louis Hjelmslev's glossematic project, but abandoned it again after 1951.² The rest of his life he worked with educational politics and the investigation into the history of Danish linguistics.

Diderichsen's major linguistic achievement is a systemic interpretation of modern Danish syntax which is so scientifically convincing that it still competes on a par with generative grammar. Indelibly marked by Brøndalian thought, this so-called 'sentence-scheme' was not subjected to glossematic reinterpretations either by Diderichsen or by Hjelmslev – who was most reticent about all these matters in general.³

This article is basically an outline for a reinterpretation of the Diderichsen sentence-scheme as it might have been modified by glossematic thinking. Yet it is also a discussion of the status of syntax in glossematics and the role of linearization in syntax. These two concerns are of pertinence here because the sentence-scheme presupposes linearity, even though Diderichsen himself does not suggest any clear reason why a certain fixed word-order is manifested. As for Hjelmslev, he would have categorically banned linearization since, for him, no phenomenon is constitutive of 'language' unless it is reducible to an atemporal relational network. Accordingly, a glossematic syntax is to be based on the relations enforced by the morphological inventory.

It is of crucial importance to observe that the concept of 'morphology', as used here and throughout the Copenhagen School of Linguistics, encompasses both what an Anglo-Saxon reader would term parts-of-speech and 'morphology proper', that is paradigm of endings, etc. I am aware of the dangers of this double usage of linguistic morphology, and the mathematic concept of morphology which, unhappily, also plays a role in the development of the ideas in this paper. I hope, though, that these concepts remain sufficiently distinct in my exposition.

This digression aside, a realist must, however, seriously object to the Hjelmslevian ban on linearization, no matter how necessary the relational formulation of the linguistic inventory may prove to be. This objection is justified in the absence of a concept of 'enunciation' encompassing the sphere of communication. Hence my present intent is to dispose of a concept of linearity lacking theoretical foundation in favor of a concept of non-linearity. This resultant concept, in turn, is to be discarded in the attempt to formulate a realistic conception of syntax.

The first section provides an outline of the theoretical foundation for Paul Diderichsen's topological project. My thesis is that Diderichsen's conception of topology as an independent factor in syntax rests on questionable empirical grounds. Thus a reduction of the sentence-scheme into relationally-defined positions is both necessary and, to a certain extent at least, possible.⁴

The second section presents the reductions of the sentence-scheme which are necessary in order to establish the tightly knit relationally-defined scheme, the kind of syntax, that is, which glossematics makes room for. Section 3, finally, discusses the language factors that oblige glossematic thinking to appropriate and incorporate some sort of notion of 'syntactic independence'.

This section reiterates and expands arguments put forth in Jørgensen (1988a), where I pointed out the incompatibility of glossematics and time as a philosophical concept. My aim in this earlier exposition (based primarily on an interpretation of Hjelmslev's treatment of the history of the Indo-European languages), was to disclose a pronounced glossematic inclination to purge linguistic science of phenomena which are dependent of a concept of consecutive time, regardless of the nature of this concept. The first glossematic alternative to be offered was the general system of (atemporal) dependencies out of which – at least in the proto-glossematic period of Hjelmslev's thought around 1934 – we can remark an emerging, general concept of morphological change. Hjelmslev, however, did not succeed in developing this incipient tendency into a consistent system.⁵ Had he done so, he would have formulated Catastrophe theory well in advance of Renè Thom, which would have had disastrous, if not down right catastrophic, effects on the history of modern mathematics. But let us keep to the effects this would have had upon the study of syntax.

1.1. Diderichsen's topological project

Diderichsen's project was significant not only to the concrete investigation of Danish syntax (and to some extent morphology), but also to a more general level of inquiry. His findings led him to interpret syntax as a two-fold system comprising a relational and a topological dimension, the latter being separate from but, of course, related to the former. This distinction is generally considered to be one of the great advantages of Diderichsen's sentential apparatus, in that it allows us to extricate syntax proper from the classical concerns of 'word-order'. However, it must be realized that Diderichsen made only vague attempts at interrelating syntax and morphology. This is why I insist upon a revision of the Diderichsen tradition, to make obvious these evident relations between morphology and syntax. And while this will entail some kind of 'Chomskification' of Diderichsen, the purpose in this case will be to bring the latter on line with glossematic thinking.

First it is essential that we have understood Diderichsen's arguments for this independent syntactic level. Some of these derive from the fact that he – in agreement with John Ries (1927, 1931), and Brøndal (1932), – regarded syntax as an autonomous domain of linguistic science treating the operation of syntactic functions. This, of course, begs the statement that a syntactic function is something different from the

set of relations exercised by a morphological category. This distinction, in fact, is the crux of the controversy between Hjelmslev and Brøndal as reflected in the Diderichsen analyses. This point can lead us to recall the development within generative syntax, where the X-bar convention was introduced to ensure that the previous doctrine of the syntactic independence of morphology (in many ways reminiscent of Diderichsen and Brøndal), was replaced by a dogma which considered the syntactic categories projections of morphological categories (which was basically Hjelmslev's point of view). Many facts speak in favor of this point of view; however, in Section 3, I attempt to demonstrate some of its limitations. John Ries' stroke of genius lay in his postulating the presence of a level distinct from the sum of the morphological relations of the sentence which embraced the syntactic relations *per se* at a general level. Ries' idea of a general level embracing a totality of syntactic relations seems very enticing. It is no wonder Diderichsen was captivated by his line of thinking.

Looking at matters from our vantage point today, Ries' perspicacity seems somewhat less convincing. One could, for example, question his reproach of the so-called 'Mischsyntax' for being unable to grasp all syntactic relations and, consequently, for being unable to regard the sentence as a totality. True, the *misch*-syntacticians did aspire towards a maximal description of the concrete linguistic matter in terms of morphological relations, and to conceal the residual left-overs as being (something termed) logic. And, given they could *grosso modo* describe obligatory dependencies maximally, it would be a matter of due course to resort to 'logic' in order to attend to facultative dependences and 'solidarities'. However, this fact does not render impossible a description of the syntax as being constituted precisely by those relations thus sketched out. The level of syntactic totality would simply then be accommodated by the description of the more remote morphological relations. More concretely, we must acknowledge recent ideas within X-bar syntax, according to which the 'nexus', a constitutive factor in the Diderichsen conception of sentential syntax, is accounted for as a projection of COMP and INFL, respectively. This means that the sentence can be conceived as projective and obligatory parts-of-sentence all the way up. In recognizing these newer contributions, the rather lofty idea of syntactic totality could be re-assigned to its well-deserved state of limbo as an interesting, necessary, but empirically void scientific idea.

But before resorting to such measures, we must first address the question as to how the purported analysis can lay claim to any knowledge of morphological classes in general. The orthodox glossematic answer would be, that it is only through the segmentation and classification of syntagmatic strings that the word-classes can be established. This way of going about things also accords with the glossematic precept whereby morphology is 'langue' and syntax is 'parole', and where 'parole' is relegated to a question of substance. On the condition that the analysis has established the form of the language, the glossematician should be able then to deduce the patterns permissible within 'parole'.

Since this paper is not an orthodox glossematic treatment of syntax, I do not hesitate, when justly motivated, to circumvent the above complex of problems altogether. For, by way of personal confession, I see syntax and morphology as being closely in-

tertwined, that is, as dialectic. No doubt it is possible, from the point of view of speech-production and speech-reception alike, to go both ways through the system (from morphology to syntax and *vice versa*): decoding language presupposes a morphological knowledge enabling the listener to reconstruct the relations exercised by the individual words and which in fact bind them together. Likewise, it is just as legitimate to presuppose some sort of generalized knowledge of syntactic patterns enabling the listener to match new words with their possible syntactic relations.

In the ensuing sections, however, we shall act as if the only road to the scientific description of the subject in question is the linear one from morphology to syntax.

1.2. Sequential morphemes

In his thesis on the syntax in the language of an ancient Danish law creed (The Law of Scania) from 1941, Diderichsen (§§7-11) names three so-called 'sequential morphemes' (Danish: 'rækkefølgemorfem'⁶). These fixed sequences of syntactic elements are as follows ['>' here signifies: always preceding]:

- 1° indirect object > direct object
- 2° inverted subject > object
- 3° placement of the sentence verb in indicative at the 1st, 2nd, or at latter positions, as a sign of certain 'modes': 'modus interrogativus', 'modus affirmativus', and 'modus subjunctivus' (effectively the same modes as in Searle 1969 p. 22; only the imperative is missing.)

Diderichsen's refutation of these 'sequential morphemes' is based on empirical grounds; however, since his own arguments rest on relatively weak material evidence, this matter deserves closer attention.

Diderichsen denies the validity of the first sequential-morpheme, stating that the meaning of only a few sentences is changed when the direct and indirect objects are interchanged. This is quite correct; however, this may be due rather to semantic and pragmatic than to syntactic factors⁷. The other counter-arguments which Diderichsen puts forth, amongst others the Danish reflexive pronoun "sig", are treated in detail below.

Diderichsen more or less invalidates his counter-argument against the second sequential-morpheme since he uses this very same claim to clarify the subject-object sequence in dependent clauses (e.g. §50, cp. 68, 114). And while he notes that deviations from this sequence are to be found in "special circumstances", he does not support this assertion with examples. A few such examples are to be found in Mikkelsen (1911 §222 I), though it should be noted that this relatively out-dated grammar disclaims all of them as being "somewhat rhetorical and stiff" (probably with the exception of those having infinitives as subjects where postposition is necessary. Such examples do not, however, suffice as the counter-evidence Diderichsen requires). Diderichsen states that maintaining this sequential-morpheme would support the claim that the 'syntactic subject' in impersonal constructions would rightfully be an oblique

part of the sentence. Although he holds the opinion that such claims had not hitherto been made, Erik Oxenvad (1934) comes pretty close to doing so. Oxenvad also adduces a number of arguments for why it is difficult to regard these 'subjects' as real subjects. Also the Danish usage of personal pronouns displays oblique forms in this respect. This argument is not, however, conclusive, since the Danish oblique form in this case can result from the syntactic subjects in impersonal sentences always being accentuated (cp. Jørgensen 1991).

Diderichsen's third 'sequential morpheme' is supposedly the least problematic one and, being also the one least relevant here, we shall disregard it for the time being. We shall return to it in connection with the syntax of the verbal group.

1.3 On the Syntax of the Danish "sig" and the IO-DO word order

Diderichsen's arguments concerning the reflexive "sig" points up the importance of an investigation into the syntactic relations of this word, and requires a detailed examination of a couple of apparent exceptions to the IO-DO (indirect object-direct object) word-order.

The Danish reflexive pronoun has already suffered the consequences of its clitic nature once in the course of history: in the late Viking age it was conflated with the verbal root as a passive ending. The reflexive object, whether co-occurrent with nominal objects or not, is closely akin to the verb, and hence may tend to occur quite close to the verb itself. This observation is proved by those constructions where the IO-DO sequence is for some reason inverted or blocked. Mikkelsen (1911) and Aa. Hansen (1967) mention the following instances:

1° If the DO is a personal or reflexive pronoun, the IO, as a full NP, is often blocked and replaced by a PrepP:

(1) *Hans far gav ham til kirken* (DO_{pron}-IO_{PrepO}; blocked with IO_{NP})
'His father gave him to the church'.

(1.1) **Hans far gav kirken ham* (IO_{NP}-DO_{pron})

(2) *Jeg bragte min søster dem* (IO_{NP}-DO_{pron})

'I brought them to my sister' (i.e. "dem" = "the books"; but blocked with IO_{NP} and "dem" = "the children")

(3) *Han overgav sin hustru nøglerne* (IO_{NP}-DO_{NP})

'He handed over the keys to his wife'

(4) **Han overgav fjenden sig* (IO_{NP}-DO_{refl})

'He surrendered the enemy' (same verb as 'hand over')

(4.1) *Han overgav sig til fjenden* (DO_{refl}-IO_{PrepO})

(5) *Han betroede Olsen pengene* (IO_{NP}-DO_{NP})

'He entrusted the money to Olsen'

(5.1) *Han betroede Olsen dem* (IO_{NP}-DO_{NP})

(6) **Han betroede Olsen sig* (IO_{NP}-DO_{refl})

'He confided himself to Olsen' (NB: same verb as 'entrust somebody')

(6.1) *Han betroede sig til Olsen* (DO_{refl}-IO_{PrepO})

(7) *Han solgte den højstbydende et tegneserieforlag* (IO_{NP}-DO_{NP})

‘He sold the highest bidder a cartoon publisher’

(7.1) ?? *Han solgte den højstbydende det* (IO_{NP}-DO_{pron})

(7.2) *Han solgte det til den højstbydende* (DO_{pron}-IO_{PrepO})

(8) *Han solgte den højstbydende sin arbejdskraft* (IO_{NP}-DO_{NP})

‘He sold his labour to the highest bidder’

(8.1) **Han solgte den højstbydende sig* (IO_{NP}-DO_{refl})

(8.2) *Han solgte sig til den højstbydende* (DO_{refl}-IO_{PrepO})

That this rule is universally valid only for the reflexive pronoun is evident. The personal pronouns, as proved by Hansen (1984: exercise 14B), do frequently occur as enclitics on IOs. Mikkelsen’s hypothesis, that blocking and the reference of the anaphore are related in such a way that blocking occurs when the reference is human, strikes me as rather doubtful. It holds for some examples in the material, but not for others; and it fails to account for the anomaly of “sælge” (to sell) in this respect, where the blocked anaphore in example #7 also has non-human reference. That the specific details are valency-bound is only an educated guess; in the absence of a systematic dictionary of verbal valency in Danish such a hypothesis is very hard to prove.

2° The following compilation, from Mikkelsen 1911 and Hansen 1967, should list all verbs where it is possible, by analogy, to explain the object sequence as DO-IO rather than IO-DO (as is normal). A number of them display the normal IO-DO sequence when the DO is non-reflexive:

– hellige sig sit ringere helbred <to devote oneself to one’s worsened state of health>, cp. “hellige sit ringere helbred ens fulde opmærksomhed” (to devote one’s full attention to one’s worsened state of health). An instance of inversion of O order with refl. DO; however, certain ODS quotations without reflexives may be interpreted as (spurious) DO-IO orderings.

– modsatte sig et forslag <oppose a suggestion>; This is probably only a double object construct with a reflexive DO. ODS has no quotes. An example of a spurious double object is: “Han modsætter Winthers sippethed Aarestrups ild- og sjælfulte erotik.” <He opposes Winther’s pettiness to Aarestrup’s fiery and spiritual eroticism> (Invented -but is it DO-IO or IO-DO?)

– modstille nogen noget (‘oppose something to something else’); “Man modstillede forbryderens udsagn vidnets udtalelse” <The criminal’s statement was opposed to the witness’s testimony>; active in Danish. No examples in ODS to check this; maybe plain IO-DO order.

– nærme sig noget; “nærme sig til noget” <‘come closer to something’>; different than “nærme noget til sig” <approach something to oneself>. At any rate the first O must be the thing approaching a goal, i.e. semantically the DO. On the other hand, the double object construction is excluded whenever both objects are non-reflexive.

– påberåbe sig retten til noget <‘claim the right to something’>; this occurs only with

a reflexive 1st O; this is bit dubious, since there is no reason to assume the reflexive to be anything but IO.

– tilslutte sig forhøjelsen af momsen <'advocate the increase of the value excised tax'>; cp. "tilslutte radioen til stikket" <plug the radio in>/"tilslutte Danmark EF" <conjoin Denmark with the EEC>. In spite of the obscuring translations into English of what is the same verb in Danish, we have either exclusion of double object construct or permanent DO-IO order.

– tilskrive nogen noget <'ascribe something to somebody'>; this verb has both IO-DO and DO-IO orders, according to Mikkelsen 1911 p. 644. When one O is an enclitic pronoun, it always precedes the other O.

– underkaste sig streng dressur <'subject oneself to strict treatment'>; "underkaste forbryderen et forhør" <subject the criminal to interrogation>. Aa. Hansen has examples of both IO-DO and DO-IO order with reflexives. IO-DO: "Han har lovet mig en ø, naar han faar underkastet sig en." <He has promised me an island, as soon as he has 'got one submitted to himself' (i.e. conquered one)>; DO-IO "Han underkastede sig en kur." >He submitted himself to a cure>. With non-reflexive objects there apparently is only the DO-IO order. "Han underkastede bilen en grundig kontrol." <He subjected the car to a thorough tune-up> "Privat havde han ... underkastet Nanny et indgående Forhør." <Privately he had subjected Nanny to close scrutiny> (Pontoppidan).

– underlægge nogen noget <subject somebody to something>; according to Mikkelsen 1911, p. 644, this verb has both IO-DO and DO-IO orders. When one object is an enclitic pronoun, it always precedes the other object.

– underordne sig nogen <submit oneself to somebody>; = "underordne sig under nogen"; but not inverted; but also with full NPs apparently the DO-IO order; "underordne filialen i Amsterdam det ny lokalkontor i Bruxelles." <subordinate the department in Amsterdam to the new department in Brussels> This is confirmed by observations of the ODS material

Aa. Hansen (1967 I. 159f.) also mentions cases like "Gå fanden i vold" <go to the devil; literally: go into the power of the devil>; probably not fully justified (as already pointed out by Mikkelsen 1911 p. 81, 91 f. and 644f), since such expressions may also function as adverbs of direction ("Basra ligger fanden i vold" <Basra lies damned far away, literally: Basra lies within the power of the devil>; Hansen loc. cit.). The kernel of the construction would thus be "i vold", "Fanden" (or whatever precedes) being an IO of the prepositional phrase. This fact, combined with the observation that the stress pattern unifies the verb and the expression "gud/fanden i vold" in a manner much similar to other unificational constructions ("bære 'pakken 'ud" <carry the package >) point to the necessity of excluding this material from the investigation.

Apart from this material, Aa. Hansen (1967 vol. I p. 158) names cases where verbs composed with the preposition "til" through contamination may receive the DO-IO word order.

3° In some situations a generic object (without article) blocks IO:

(9) *Sy borgmesteren en kjole*

Sew the lord-mayor an evening gown

(9.1) *Sy borgmesteren tøj*

Sew the lord mayor clothes

(9.2) *Sy tøjet for borgmesteren*

Sew clothes for the Lord Mayor

4° Mikkelsen (1911: 644) gives several examples where the semantic interpretation of the sequence would point instead to a DO-IO sequence. In most of these cases it is very difficult, if not impossible, to distinguish, except by semantic means; as far as syntactic observations are concerned, there is no particular reason to consider these.

This brief survey of this construction demonstrates that exceptions to the otherwise fixed IO-DO word-order are to be found in Danish. But it also shows that such exceptions are either valency-bound anomalies (e.g. “underordne”)⁸ or that they are triggered by the enclitic pronouns, mainly the reflexive one. The salient question in this investigation is whether these phenomena can be regarded as valid arguments against the IO-DO order. It is probably better to see them as results of a few specific rules in the Danish syntax, in which case they obviously do not count as arguments against a rule applying so to speak as a “default variant” at the most general level of the syntax.

The fundamental rules of cliticization in Danish have been outlined in Jørgensen 1991. They state that any subject, direct or indirect object represented by an unstressed⁹ anaphorical pronoun occurring in the part of the sentence after the modal field¹⁰, moves forward to hang enclitically on the nearest stressed valency-bound member of the sentence; in case they may also stand enclitically on the modal field. If the pronouns in question occur in front of the modal field, they stand proclitic on this (even though the verb or whatever filling this field may not be stressed). Concerning these rules, compare the interesting paper by Josefsson (1992) on the Swedish situation.

In this way, it is possible to explain quite a number of the apparent exceptions mentioned in this section as results of the cliticizations. The relation between the verbal root and the clitic may be strong enough to exclude any other interfering member of the sentence: this accounts for cases where the IO is not possible.

The conclusion to be drawn from this section is that the concept of sequential morphemes is not invalidated by Diderichsen’s arguments. In fact it should be possible to investigate Danish word-order using this concept, and to extend its range beyond those discussed by Diderichsen in his thesis from 1941. The advantage to this approach, as compared to the traditional Diderichsen one, is that it allows the parallel between syntactic and morphologic case to stand out, thereby facilitating the reduction of syntax into morphology.

2. The Sentence-Scheme as a Maximal Sequence Morpheme

The following remarks presume a whole series of sequential morphemes in Danish, a much stronger claim in fact than the list enumerated above. These assumptions are substantiated by a number of empirical observations, carried out primarily by Lars Heltoft (1986 a, b) and myself.

The basic claim is that for the relational sequence: S-V-IO-DO. This fundamental sequence is observable not only in ordinary constructions with full NPs, but also for example between clitic pronouns (cp. Jørgensen 1991), where the S-IO-DO sequence will always be the rule. It also encompasses two of the sequential morphemes observed by Diderichsen and discussed at length above. The place of the verb is not merely a theoretical construct intended to force the Danish word-order to conform with the basic characteristics of a SVO language. Its placement is also defensible in terms of the observations made below concerning the syntax of complex verbal groups in Danish, namely where all infinite verbs assume precisely that position anticipated in this pattern.

In front of this basic relational sequence we assume, with Diderichsen, a fixed sequence made of *conjoining conjunctions*, *subordinating conjunctions*; *fundament field*¹¹ and *modal field*. Whereas the first two can be defined paradigmatically, by virtue of the morphemes admissible in these fields, the two next fields have a more complex status. Basically, they are filled with material defined paradigmatically elsewhere in the sentence: the fundament field comprised by the nominal and adverbial groups, the modal field either (in independent clauses) by the finite verb or (in dependent clauses) by the optional modal filler 'at'¹². Their presence and interrelation depend on the external function of the clause in the discourse, so that the constellation given in these two fields marks the illocutionary function of the clause¹³.

Following the fixed relational sequence we anticipate a zone where adverbs of time and place and other kinds of heavy adverbs, and possibly what is sometimes termed prepositional objects. Also within this zone there are heavy NPs. Admittedly this area – roughly what Diderichsen subsumed under 'A' and 'extraposition' – is a syntactic garbage disposal, made vaguely coherent thanks to a few palpable relations. This zone is little investigated, and Diderichsen's interpretation (1941) of it as mainly governed by principles of weightedness may be the most valid proposal we have right now. At any rate, all members within this zone are characterized semantically by either their morphological character or their introductory particle. This means that they do not need to prey upon sequencing to keep distinct from each other¹⁴. Unlike German, for instance, where the time -> place sequence is mandatory, nothing like this is observable in practical Danish language usage.¹⁵

It should be mentioned that all direct members of the sentence are provided with at least one stress each, unless it is removed by some subsequent rules.

In order to establish the exact word order in a Danish sentence from these three blocks, five important modifications are needed. I render them here in a provisory hierarchic order:

1° Introduction of coordinated members. Coordinated members are always stressed (cp. Hansen and Lund 1983 §§ 13, 30, 44, 89; Basbøll 1989 p. 122), and hence do not undergo further modifications insofar as these effect stress and/or word-order.

2° Filling of the modal field (see Heltoft). This also caters to the complete syntax of the verbal group, since the V is of course removed from the sequential morpheme, when there is only one verb. Spurious examples mentioned by Diderichsen (1966) of objects within V sequences (...VVOV..) must be left aside here.¹⁶

3° General marking of anaphoricity; this also removes the stress from the anaphorical members, unless already encompassed by 1°.

4° Filling of the fundament field in sentences with *modus affirmativus*. There seems to be two quite contrary reasons to do this: either to mark anaphoricity, i.e. the member filling this field is the most anaphoric member in the sentence; or to mark contrast. Maybe formulations like "most scene-setting from a communicative point of view" will suffice.

5° Cliticization of pure anaphores (see Jørgensen, 1991). From the sequential morpheme proper and, in PrepPs, this means encliticization; from the fundament field, procliticization. In certain kinds of PrepP's, this does not work, like comparative PrepPs (if they are Preps at all). The most likely explanation is that the Prep in such constructions is inherently weak, thereby so to speak "passing on" the stress to the anaphore; cp (with certain reservations as to the validity of the claims in this paper): Jørgensen 1990.

If the arguments concerning inversion of the IO-DO order in connection with certain clitics are to find their right place, the re-orderings must be made to follow after this step. Since others may be termed valency-bound, they would not occur at this level, but would be prepared already in the organization of the sequential morpheme by the valency of the verbal root.

By way of conclusion to this section, a typology is given of the different sentence members in Danish and the way they display their relation to the sentence as a whole.

1° *Members characterized through inflection*

Only two types are to be found in this group: those members built around verbs and those represented by pronouns. Both are given here only with strong reservations: through schwa deletion, endings in the Danish system of verbs have been weakened to a point where phonetic recognition of preterite vs. past participle and infinitive vs. present in many cases has become difficult out of context. Sequencing plays an important role in the construction of the Danish verbal group, since the only finite position lies in front of the infinites. Moreover, the hierarchy between the infinites relies exclusively on simple linear sequencing. Thus the importance of the endings should not be overestimated¹⁷.

As for the pronouns in the spoken language, conjugation plays a role for the clitic pronouns, especially the personal pronouns. Non-clitic pronouns tend not to be conjugated in Danish, which means that they are comparable to common NPs in this respect (see Jørgensen 1991). In any event, the whole question of strong morphologic relations appears somewhat doubtful when dealing with the Danish pronouns, since it is virtually impossible to separate endings from roots and to erect a consistent inflexional system. In fact, what we have is a set of supplementary roots with a related kind of semantic reference. The Danish system is interpretable as a paradigmatic function only by analogy to languages with proper morphological systems. Thus the only consistent morphological systems in Danish seem to be the verbal and adjectival ones (the latter of course without implication on the global syntactic level).

2° Members characterized through sequencing.

Subjects and objects are to be found in this group. As just noted, verbs and pronouns rely heavily on sequencing also in their syntactic function. Sequencing also applies to certain other sentence members like subordinating conjunctions (whose linear sequence also exhibits their functional hierarchy), and adverbs (where the scope also encompasses its field through strict linear, rightward effect).

3° Members characterized in their function through a nexus of a kernel and a function word.

This group encompasses the prepositional phrases whose function is determined by the interplay between the preposition and the kernel. It must be mentioned, though, that the prepositions are very often polysemous, covering different kinds of relations (typically both local and objectal relations or local vs. temporal function). In such cases the semantic character of the kernel becomes important¹⁸

4° Members characterized through their semantic properties.

In Danish, a number of individual types, like designations of time and place, may function as adverbs, even though they are ordinary NPs as far as their form is concerned. This holds for such expressions as 'næste uge' (next week), 'samme sted' (same place), or Kl. 5' "at five o'clock". This is presumedly possible only for a minor group whose semantic features are at any rate quite distinct.

3. What is syntax?

So far, we have apparently confirmed the young Hjelmslev in his chauvinistic attitude towards syntax, as so vividly expressed in his 1934 lectures on linguistic theory (Hjelmslev 1972 p. 57), where he depicted himself as the vulture hovering to plunder the carcass of syntax. It seems as though the relational network of the sentence can be reduced to morphological systems – even in a language like Danish practically devoid of nominal inflection.

However we in fact *did* overlook one factor: the effect of temporality upon the *significant*, a concern which Hjelmslev also wanted to eradicate in his linguistic theory¹⁹. A thorough interpretation of his ongoing development of linguistic theory reveals that Hjelmslev attempts to reduce language wherever temporality impinges upon the theory²⁰. This is evidenced not only in his treatment of syntax, but also in his reduction of the history of the Indo-European languages, as it can be read in Hjelmslev (1963, 1972). In these two treatments of historical features in linguistics, he defends a thesis that all linguistic change derives directly from the system of language. However, in order to effect this reduction, it becomes necessary to construct a meta-morphological level beyond the morphological level of 'langage'. It is from here that the linguistic changes can be staged (cp. Jørgensen 1988a). Conceived in the normal Saussurean way, a linguistic system can not initiate its own change. In this sense Hjelmslev, in trying to elude this problem, seems to be working towards something altogether different from the classical structuralism.

It is likewise necessary to pose the question whether time is really reducible in these allegedly morphologic relations. This claim seems valid only conditionally. The very possibility of displaying morphological relations as sequential morphemes no doubt presupposes some given concept of sequential time. Hjelmslev's attempt to meet this demand by introducing the notion of vectors (mentioned in Gregersen 1991 II p. 184) is evidently incapable of removing the problem, since time must constitute a single parameter of these vectors. A concept of time can not be negotiated²¹, even though the purpose driving this way of thinking is to do abolish it. It is no doubt possible, and in many ways also necessary to solve certain problems, to operate with concepts, below sentence level, that suspend the direct influence of time on a given structure. This is what Rischel (1975) suggests. But, when the linguistic structure is exposed to communicative perspectives their character as formal replacements of realistic structures should be made clear.

This failure to clearly demonstrate the relation of time as such is a problem inherent to both Chomskyan syntax and dependence grammar. The exact nature of deep structure also seems too vaguely defined so as to allow a serious discussion of whether the deep structures comprise phonetic representations²². However, when judging matters from an external, realisistic point of view, it does seem necessary to conclude that syntax in fact operates on phonetic matrices, and that a temporal organization is involved.

If this assertion is valid then any syntax must satisfy these two general preconditions. This goes also for a Hjelmslevian syntax. The concept of time as called upon here is conceived in connection to a general realistic approach to language. Nevertheless this approach retains important aspects of structuralist linguistics, namely the deductive approach and the relational networks. Realism is meant to designate some very precise assumptions regarding the prerequisites to any kind of 'nature of language', *grosso modo* identical with the basic concepts of enunciation (cp. Jørgensen 1988b). Hence the concept of time thus called for should be ascribed neither metaphysical nor psychological character. Time in this context is an agnostic concept invoked to account for a necessary condition of enunciation, viz. the presence of the speakers within an existing communicational space.

To the extent that this criticism of Hjelmslevian syntax holds, it should make possible strong analogies between semiotic and syntactic processes of transitivity. The doubleness which I have tried to demonstrate in the overall organisation of Danish syntax is strongly reminiscent of the way the 'énoncé' in Greimassian theory is organized in relation to 'énonciation' (cp. Greimas and Courtés 1979; for a detailed discussion of the organization of temporality within their theory, see Jørgensen 1988b). Thus it can be concluded that:

- 1° The purely constructive network in Danish syntax can be conceived in conformance to Hjelmslev theorems on the fundamentally atemporal character of linguistic structure;
- 2° that this position is defeated radically as soon as semantic and pragmatic factors are taken into account. That, in other words, an atemporal syntax must pay heed to the demands from the semiotic processes of enunciation.

The question to which extent the syntax of other languages conform with this duality of internal a-temporality and external temporality, must remain an open one. The suggested analogies to general semiotic theory make the universality of this claim probable.

NOTES

1. I have been benefitted in this article by the extensive comments of Professor Michael Herslund, Department of French, Copenhagen School of Economics and Business Administration. Naturally, I assume responsibility for any remaining inconsistencies. I also want to thank Raymond Nault for his thorough work on the language.
2. The reasons for this leave-taking are outlined in a most useful book by Frans Gregersen (1991) which also presents a deep-going epistemological discussion of how these circumstances may be interpreted. See also his earlier version (Gregersen 1986).
3. Apart from a short discussion of Henri Weil's (1844) conception of the interface between psychology and word order (Hjelmslev 1950), concluding with a statement that these questions hinge on a theory of connotation, Hjelmslev never published anything on word-order. Gregersen (1991: 210ff.) discusses a series of sessions in 1950-1 with Hjelmslev and Diderichsen as main participants, where these issues were the main topic of inquiry. At the time of the present paper, I was unaware of the existence of a number of extensive notes made by Professor Eli Fischer-Jørgensen from these sessions, and have not had occasion to purview them for the technical matters pertinent to the present discussion.
4. I of course am not the first one to suggest such an approach; Aage Hansen 1967 and Heger 1984 are notorious recent efforts in the same direction. A detailed account of the differences between our approaches does not lie within the present bounds; however, it should be noted that one of my main arguments, namely the importance of the clitics in Danish, is not used by my forerunners.
5. Similar conclusions on Hjelmslev's conception of history and system are reached by Gregersen (1991; II: 39).
6. Diderichsen (1941: 12) claims that the term is coined by the Danish Germanic philologist L.L. Hammerich. Another possibility is Louis Hjelmslev, who used a similar concept in Hjelmslev: 1935-37.
7. I am referring to the well-known (though linguistically defective) observation of indirect objects being frequently 'human' and indirect objects frequently 'things'. The futility of claiming this in a theoretical framework is proved by Herslund 1986; this notwithstanding, it is difficult to claim that there is no broad statistic relevancy to it.
8. In a personal communication, Professor Erik Hansen, Copenhagen, has pointed out to me that obviously many of the relevant words are composite verbs with a preposition-as-first component. In these cases the word order Prep-V-DO-IO is an obvious parallel to the word order V-DO-PrepO. This does not explain the non-composite verbs like "nærme" (approach), "hellige" (attend to), however.
9. Anaphorical pronouns receiving contrastive stress do not undergo cliticization, but retain the morphologic features of full anaphores, i.e. the distinction between nominative and oblique forms. Cp. Hansen 1972; Jørgensen 1991.
10. The 'modal field' is my translation of the concept *m* in Heltoft 1986 a, b. This supplants the well-known Diderichsen term of *v* through generalizing its function and applying it also to dependent clauses.
11. I am not entirely satisfied with this literal translation of Diderichsen's concept of 'felt', since an important connotation – that of a "square on a game-board" in the English correlate is lost.
12. The interesting status of this particle in relation to structural and sociolinguistic matters is

described in Hansen 1983 and Heltoft 1986b. Even though the particle is superficially optional, there is very good reason to assume that it is structurally present, even in such sociolinguistic contexts where explicit language politics condemns it, cp. Heltoft 1986b.

13. For details, see Heltoft, 1986 a, b.
14. Of course heavy full NPs are an exception to this. The interpretation of these is either secured by the valency of the full verb, or, in Danish syntax, by replacement dummies like the subject 'der' analyzed as such by Diderichsen.
15. Nevertheless, simple experiments with permutations within 'A' will convince one of the fact that some sequencing rules in fact do apply within this field ("Han er stået tidligt op i morges" (He is arisen early this morning)) as opposed to *"Han er stået i morges tidligt op" (He is arisen this morning early)).
16. The most promising possibility in my opinion is an interpretation of these phenomena allowing the post-O verbal sequence to be a predicative of the O, not a verbal group proper (this phenomenon is well-known; lengthy observations in Mikkelsen 1911). Other factors might be at play as well.
17. A general introduction to the reduction of the Danish verbal inflexional system and the consequences for the general syntax of the language is given in Ács and Jørgensen, 1990.
18. I have used the term 'nexus' in this connection, in spite of my previous reluctance to accept this idea in the general outline of this article. I am forced to do so for want of a better term to express the mutual relation of the kernel and the preposition, obviously present due to homonymies etc.
19. Just one notable example of this is taken from an allegedly cryptic text, Hjelmslev's outline of the Danish system of Expression (original: 1951, reprinted in 1973: 247ff): to Hjelmslev, the ordering of phonemes in a morpheme did not really matter. This can be seen from his reduction of ?p, ?t and ?k to respectively hb, bh, hd, dh, hg, and gh. This was done in order to account for the particular Danish stopped consonants, distinct only through aspiration vs. non-aspiration. The two-fold analysis depends on the fact that certain contexts (like ?pl) would force him to acknowledge otherwise non-existent groups like ?hl, whereas others (like l?p) would likewise force non-existent groups like ?lh upon the poor phonetician. In the end-effect, neither variant of the aspirated stops is pronounced differently – *cur illæ lacrymæ?*
20. Gregersen 1991 (passim) offers a wealth of details on the 'anti-time' theme in Hjelmslev's thinking.
21. Or "Es gibt Zeit", as Heidegger would have (put) it.
22. However, Bach's (1975) most interesting attempt to justify the linearity of the deep structure on theory-internal grounds deserves mentioning in this connection. My claims on phonetical character of deep structure rely on Brandt 1974, 1975.

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