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On Justifying Topological Frames: 'Positional Field' and the Order of Nonverbal Constituents in German [0]

0. Introduction

0.1. Although there has been an abundance of word order studies in recent years, with German data playing a prominent role, we know very little about the exact nature of the factors involved. This is true, for example, for the much discussed area of German verb order, where the conditioning of verb-first vs. verb-second vs. verb-final position has never been precisely stated. [1] It is even more true for less popular topics such as the ordering of nonverbal constituents, for which the descriptive vocabulary employed is often too crude and sometimes highly misleading. To take the most conspicuous example, rules regarding the order of noun phrases are usually stated in terms of 'subject', 'direct, indirect, prepositional object', 'adverbial', etc. This suggests that we have raised, and answered, an important descriptive question to the effect that it is relational status rather than the morphosyntactic property of case by itself

(1) Most studies rest content with associating verb-second with main clauses, verb-final with subordinate clauses, and verb-first with interrogative clauses, neglecting (or dismissing with ad hoc explana-tions) the many uses (cf. Duden 1973:619 ff. for a list) where these correlations do not hold. Given a well-reasoned theory about primary uses or prototypical German main clauses etc., the usual view could of course still be correct. But, in the absence of such a theory, it simply is descriptively inadequate: The role of main vs. subordinate clauses is overrated, and correspondingly the interplay of syntactic and semantopragmatic factors in 'conditioning' verb order types is underrated and nowhere reconstructed in detail. Subtler problems, such as the categorial status of interrogative pronouns that 'induce' verb-final only in some environments but not in others, have not been seen or solved anywhere either.

that primarily determines the order of German nominals.
But, in fact, we do not know the answer at all, and many are not even aware of the question, since, in the examples used to illustrate the respective ordering regularities, these two properties usually coincide, and the ordering behavior in contrastive pairs of cases - e.g. prepositional phrases in object vs. adverbial functions, 'free' vs. object datives - has never been systematically investigated. (2) Or as a morphosyntactic example where contrary to appearance we know very little, let us consider for a moment phenomena involving pronouns, cf. (1) vs. (2).

(1)   Meier hat {der Firma das Geld} gespendet.
                  {das Geld der Firma}

(2)(a) Meier hat {der Firma es} gespendet.
                  {es der Firma}

(b)   Meier hat {ihr das Geld} gespendet.
                  {das Geld ihr}

One is usually content with describing the regularity in question in terms of 'personal pronouns' always preceding full NP's (3). But this is hardly more than a restatement of the facts; and even slightly generalizing this relevant parameter to pronominal vs. full NP (4) is descriptively much vaguer than called for: Given the number of properties covered by the term 'pronominal (NP)' in cases like (2), what we should want to know is exactly which one of these properties is relevant to ordering: Is it the morphosyntactic pecularities of pronouns or the semantopragmatic properties of being definite and anaphoric? Do simple pronouns like er, sie and fuller pronouns like dieser, dieselben etc. behave alike ? Or is the ordering behavior not connected with any single property but to a combination of these ? Which ones ? The variety of German pronouns is such that diagnostic data for answering these questions could be found in every case; but, to my knowledge, this has so far not been attempted with sufficient

(2) A rare exception is Engel, who gave a lot of attention to the problem of descriptive vocabulary already in his 1970 study of German word order (cf. for example pp. 11, 16, 30, and 43 ff.). As for the specific terms in question he notes that case itself is more important than relational status (1970:45f.). - Nevertheless, even in careful studies of German word order problems such as Lenerz 1977 and Altmann 1979 the traditional terms have remained operative.

(3) Cf. Duden 1973:627f., Lenerz 1977:68f.

(4) Cf. Vennemann 1977:287 fn.61.

attention.

The message these examples are supposed to convey is probably clear by now: modern research on word order, in concentrating on more spectacular and more speculative issues (such as underlying order, universals of word order and word order change, explanatory principles, overall influence of semantic and communicative factors), has neglected many of its simplest descriptive tasks - which are: to carefully identify the factors that determine the word order regularities in any specific language. As a consequence, we have not solved the most important descriptive task - which is to determine how word order is, in general, to be accounted for within an optimal grammar: We still can hardly speculate, much less know, whether we need a special word order component, where this component (or specific subsets of word order rules respectively) should be placed etc. All this depends crucially on the kind of linguistic (structural, semantic, pragmatic) information the respective word order rules must refer to. But without having solved these questions and, in particular, without possessing an adequate descriptive vocabulary to begin with, it stands to reason, and sometimes can be proved (5), that the above-mentioned grander issues cannot be pursued successfully either. - In short, there is good reason for redressing the balance of efforts, at least for a while, in favor of the basic descriptive tasks alluded to above. It is to this endeavor that the present paper offers a contribution.

0.2. The question I want to take up in the following is one of justifying descriptive parameters: I would like to determine which topological frames are essential to stating the ordering regularities of German nonverbal constituents. That this is a real issue, has by and large gone unnoticed, although the frames employed in contemporary literature are by no means uniform. In particular, we may distinguish two descriptive options: models that make use of the socalled 'Stellungsfelder' (='positional fields') framework, and those that do not.

The first option is typical for word order studies in the

(5) The discussion of German being underlyingly SVO or SOV provides many telling examples for this, no matter in which theoretical framework it has been discussed. For a simple case in point, cf. § 2.1.1.

'germanistic tradition': Here, the 'positional fields' have by now become the normal framework of discussion (6), these fields being more or less conceived of in the way Engel, elaborating on earlier work by Drach 1937, Boost 1955, and others, has defined them (7). But although this framework is considerably different from the earlier ones, the reasons for making this change usually remain unexpressed. At most it is said that 'positional fields' have proven 'useful' for describing German word order (cf. for example, Duden 1973:619) without ever arguing precisely in what respect, where, and why.

The second option is the internationally more prominent one: neither in generative studies treating the order of nonverbal constituents in German (8), nor in Vennemann's writings on the subject (9) are 'positional fields' made use of at all. Putting it positively, this option entails the hypothesis that the topological entity 'clause', supplemented by the additional descriptive devices provided by the individual grammars is sufficient for stating the word order regularities in question. Again, perhaps on the strength of the model for English, it is presupposed rather than explicitly argued that this hypothesis is correct.

Whatever the reasons are for this general complacency, it seems clear to me that they are not valid. The difference in descriptive vocabulary should raise many questions that, in the interest of descriptive adequacy, deserve careful investigation. To begin with, a framework making use of the notion of 'positional fields' prima facie looks richer than others in that it contains additional topological frames - what exactly are therefore its additional descriptive possibilities, if any ? What specific empirical claims are associated with them ? Are they borne out when it comes to the task of formulating the German word order rules ? Which ones, if any,

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(6) Cf. Duden 1973:619, and especially the Forschungsbericht by Etzensperger 1979, which clearly reflects this development.

(7) Cf. Engel 1970:39ff.; 1972:39ff.; 1977:190ff.

(8) Cf., for example, Bach 1962; Bierwisch 1963; Esau 1973; Reis 1974; Huber/Kummer 1974; chs. 5,7; Koster 1975; Thiersch 1978.

(9) Cf., for example, Bartsch/Vennemann 1972; Vennemann 1973, 1974.

and by which rules ? And, if the specifics of the 'positional fields' thus turn out to be empirically relevant, how can they be incorporated in the grammar ? Can they be reconstructed in any of the grammatical frameworks at issue (in a way that the two positions contrasted above could, in fact, turn out to be notational variants at least for some models) ? Are grammars incorporating 'positional fields' adequate enough for describing the facts regarding nonverbal constituent ordering in German ? I shall now turn to these questions with primary attention being given to the more strictly empirical issues. The facts used in my arguments are on the whole well-known; what has yet to be shown, however, is that and how certain facts bear on the issues to be settled.

1. The Positional Fields Framework

1.1. A positional fields framework consists essentially of five slots as diagrammed in (3) (10) ; the first, third, and fifth slot are the socalled positional fields for which the second and the fourth slot provide the dividing lines. The way this framework applies to German sentences can be inferred from the examples in (4):

(3)

INITIAL FIELD		MIDDLEFIELD		FINAL FIELD
	leftmost bracket		leftmost, rightmost Bracket= linker, rechter Klammerteil		rightmost bracket

initial field = Vorfeld
middle field = Mittelfeld
final field = Nachfeld

As the examples show, the domain of the positional fields analysis is the noncoordinate clause, no matter whether main or subordinate. The division into fields mainly revolves around the placement of the various elements of the verbal complex and the factors it is bound up with, such as presence of certain conjunctions, ± finiteness of the respective verbal parts, and sentence type. As is wellknown, the elements

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(10) In my presentation I follow Duden 1973, Engel 1977, and especially Hoehle 1976. Whether this five-part frame should be further differentiated by postulating socalled 'internal frames' (Engel 1970: 37f.; 1970 a:49f.), is not essential to my argument. As for possible or necessary further refinements cf. § 3 below.

involved - governing or finite verbs and the verbal parts dependent on them ('DEV elements') [11], finite verbs and conjunctions conditioning their position - may or must occur discontinuously, thus forming the socalled 'sentence brace' or 'sentence bracket', ('Satzklammer'). The various types of sentence braces are listed in (5) [12], as for the symbols C_1, C_2 cf. the lists of conjunctions in (6).

(4)

	INITIAL FIELD	leftmost bracket	MIDDLE FIELD	rightmost bracket	FINAL FIELD
(a)	Herbert	stellte	die Heizung	an	als es kalt wurde
(b)	Dann	stellte	Herbert die Heizung	an	
(c)		Ob	Herbert die Heizung wohl	anstellt	
(d)		Stellt	Herbert die Heizung	an	
(e)		ohne	mit ihm ein Wort	zu wechseln	
(f)		als	es	regnete	
(g)	Hau		bloß	ab	
(h)	Komm				
(i)				Einsteigen	
(j)	Bei ihm		für immer	zu sein	
(k)	Herbert	weint			
(l)	Was	weißt	du über mich		
(m)		was	du über mich	weißt	
(n)		weil	es	zutrifft	daß er trinkt
(o)		hat	er doch schon gestern	zugegeben	daß er trinkt
(p)	dem Kerl	werde	ich es	heimzahlen	
(q)		statt	ihm	zu folgen	

(5)

(a) V_{+fin} ... $\left\{\begin{array}{c}\text{ATV}\\ \emptyset\end{array}\right\}$ cf. (4)(a),(b),(d),(g),(o),(p)

(a') ... $\emptyset$ cf. (4)(h),(k),(l)

(b) C_1 ... V_{+fin} cf. (4)(c),(f),(m),(n)

(c) $\emptyset$ ... V_{-fin} cf. (4)(i),(j)

(c') C_2 ... V_{-fin} cf. (4)(e),(q)

(6) C_1: ob, daß, als ob, weil, wenn, ...

C_2: ohne, um, (an)statt

It will be noted that the sentence brace may be partially $\emptyset$ (cf. also Engel 1970:34). This may be the case with its lefthand element when the righthand element is the infinite lefthand element governing verb of the clause, and with the righthand element

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(11) DEV (=dependent element of the verbal complex) translates the abbreviation ATV (=abhängige Teile des Verbalkomplexes) in Hoehle 1976.

(12) As is already clear from (4), the socalled 'coherent constructions' and haben/werden preposing are not considered.

when the lefthand element is the finite verb. This $\emptyset$ should not be read as 'nothing', but be taken as a part of the brace that is not 'visible'. Facts to be described later will show that this interpretation is correct.

Since the elements of the brace constitute the lines of demarcation between the individual fields, the latter can now easily be defined in terms of their boundaries: The middle field ('Mittelfeld') is the space between the lefthand and the righthand elements of the various types of sentence braces. The final field ('Nachfeld') is the space between the right-hand elements of the respective sentence brace and the right-hand clause boundary. The initial field ('Vorfeld'), finally, is what comes between the lefthand clause boundary and the lefthand element of the sentence brace.

It is already clear from the examples that neither of the three fields is necessarily present in every clause. But their respective absence has quite different status. While every German clause type may have a middle field or a final field, or may be complemented by such a field although it need not be [13], the initial field is confined to clause types that are characterized by 'verb-second' (in terms of the sentence brace this is type (5)(a)(a')), where it is obligatory. In other words: no initial field can be added to clauses such as (6) (cf. (6')) and, in clauses such as (7), it cannot be eliminated (cf. (7')) without producing ungrammaticality or changing clause types [14].

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(13) Socalled 'prenominal clauses' (Ross 1973:409f.) are apparent counter-examples to this claim, since they do not allow for a final field, cf. (i) vs. (ii):

(i) (a) Der wegen Verdunkelungsgefahr verhaftete Bürger

(b) +Der verhaftete wegen Verdunkelungsgefahr Bürger

(b') +Der verhaftete Bürger wegen Verdunkelungsgefahr

(ii) (a) Der Bürger wurde wegen Verdunkelungsgefahr verhaftet.

(b) Der Bürger wurde verhaftet wegen Verdunkelungsgefahr.

But it is questionable to begin with that participial attributes have clause status, since no syntactic rule referring to clauses treats them as such. As for the final field with nonclausal constituents cf. § 3.3 below.

(14) There is no circularity involved, since 'verb-second' vs. 'verb-first' types can be defined by complementary lists of their semantopragmatic functions and/or their syntactic environments. The only exceptional case is the imperative type, where the initial field is optional (cf. Engel 1977:210f.).

(6) (a) Ist er denn nett ?
  (b) Wäre es anders, dann hätte er seinen Frieden auch nicht.
(6') (a) +Eigentlich ist er denn nett ?
  (b) +Plötzlich wäre es nicht anders, dann hätte er seinen
      Frieden auch nicht.
(7') (a) +Schwieg man./Schwieg man ?
  (b) +Er behauptete, falle die Lektüre schwer.

(7) (a) Einige Zeit schwieg man.
  (b) Er behauptete, ihm falle die Lektüre schwer.

We may express the difference in question by saying that absence of an initial field in a clause means that none exists, whereas in the case of a middle or a final field it means that they have been left empty.

Whatever the merits of these positional fields will turn out to be, it should be clear from the start that they define topological frames in addition to 'clause', rather than replacing it. That we cannot do without 'clause' is shown by placement rules that crucially refer to it. A case in point are the 'coordinating' conjunctions (und, aber, denn,...) which, in view of their behavior – they can introduce practically any clause without however influencing its internal makeup, have to be characterized as being 'outside the clause', 'to the left of the lefthand clause boundary'. Moreover we have seen that clause boundaries are referred to in the definitions of the positional fields themselves.

1.2. What is the specific descriptive potential of the positional fields framework ? As is clear from the definitions, it cannot consist in making available the different field terms as such: Inasmuch the defining vocabulary (± finite verb, DEV, conjunctions, clause boundaries, etc.) is more or less available in any grammatical model, any regularity formulated in terms of initial, middle and final fields can in principle also be expressed without them. There is only one exception to this: Within the positional fields framework, the middle and final fields are always given as separate units, whereas in other models (unless transformational devices are used) such a division depends on the physical presence at the surface of a dividing element. Thus, cases such as (8) are described differently under the two models: the positional fields theory posits a zero boundary (cf. (a)), where for other models there is no such division (cf. (b)).

(8) (a) ......[   ] Ø [   ]
  (b) ......[   ]   [   ]

      Herb... weiß seit langem, daß er Erna schätzt.

Apart from this, the essential difference is in the status of the units. In a positional fields framework, initial, middle and final fields are basic terms which can be used for defining other terms, whereas in other models it is the other way round. This has significant descriptive consequences in the case of the middle field: While the different cases that are grouped together under this label can of course be characterized one by one by the usual vocabulary, it is only in the positional fields framework that they are claimed to be essentially the same and are treated accordingly, as instances of the same category. This in turn entails that elements that would be a totally mixed lot in any other approach form an easily definable 'natural' class, the elements V_{fin}', $\emptyset$, C_1',C_2', e.g. being 'the class of elements immediately to the left of the middle field'. Hence, within a positional fields framework it would be natural, and only to be expected, if word order rules crucially referred to the middle field and/or classes definded in terms of it whereas it would be accidental in other models. In the latter case, a rule grouping V_{fin}', $\emptyset$, C_1',C_2', together would be in no way more natural than a rule grouping together C_1 and, say, the first element of DEV.

As far as I can see, these are the essential distinctive properties of the positional fields framework. Hence, if this framework is to be empirically more adequate than others, it will have to be shown that at least some word order rules (or linguistic generalizations in general) make crucial use of these properties. In the following sections, we shall look at data that are suggestive in this direction.

2. Some Suggestive Data
2.1.
2.1.1. The Final Field

Let us begin by reviewing some data originally presented by Bartsch and Vennemann (1972:137):

(9) (a) (daØ) Hans wegen des Tadels sorgfältig schreibt.
  (b) +(daØ) Hans sorgfältig wegen des Tadels schreibt.

(10) (a) Hans schreibt wegen des Tadels sorgfältig.
  (b) +Hans schreibt sorgfältig wegen des Tadels.

In (9) the reason adverbial has to precede the modal adverbial, whereas in (10) both orders are possible. Bartsch and Vennemann, correlating this difference with the different verb position in (9) vs. (10), explain the phenomena in the following way. Given that the modal adverbial is the more immediate modifier of the verb "sentence [(9)(a)] shows the construction of a consistent OV language, [(9)(b)] is ungrammatical. Sentence [(10)(a)] shows the inconsistent situation after the verb shift in many clauses. It is the regular construction of contemporary Standard German ... [(10)(b)] is the construction of the future which can be heard quite frequently in colloquial German and is generally accepted"(1972:137).

This is an ingenious explanation, but if one considers sentences like (11) as well it cannot be correct. (15) Although they are main clauses with the finite verb in second position, only the order found in (9)(b) is possible.

(11)(a) Hans hat wegen des Tadels sorgfältig geschrieben.
(b) +Hans hat sorgfältig wegen des Tadels geschrieben.

The puzzlement about what really is going on here is solved by considering the additional data in (12)/(13):

(12) (daß) Hans sorgfältig schreibt wegen des Tadels.
(13) Hans hat sorgfältig geschrieben wegen des Tadels.

The relevant factor apparently is not main vs. subordinate clause, or position of the finite verb, but placement in middle vs. final field. The modal adverbial can be to the left of the reason adverbial only, if the modal adverbial is in the final field. If both are in the middle field their unmarked order is fixed to reason adverbial before modal adverbial. (16)

A rule incorporating this generalization[17] covers all the facts cited including the data in (8), (9), thus incidentally providing evidence that the Ø boundary is 'real'. We can thus take this rule as a clear indication that the specifics of the positional fields approach are empirically relevant. Any grammar aiming at descriptive adequacy will have to take them into account.

2.1.2. There are a number of further positional regularities that in some way involve the final field. This is especially true for the position of dependent clauses:
- There are clause types that can only occur in the final field, such as so daß clauses, cf. (14):

(14)(a) Hans war schlechter Laune, so daß ich bald fortging.
(b) +weil Hans schlechter Laune war, so daß ich bald fortging,
(c) weil Hans schlechter Laune war, so daß ich bald fortging.
(d) +So daß ich bald fortging, war Hans schlechter Laune.

- In the case of relative clauses, provided they can be separated from their head-NP, the final field is the only alternative position that they can assume, cf. (15):

(15)(a) Da redete mich plötzlich ein Mann, den ich gar nicht kannte, sehr freundlich an.
(b) Da redete mich plötzlich ein Mann sehr freundlich an, den ich gar nicht kannte.
(c) +Da redete mich plötzlich ein Mann sehr freundlich, den ich gar nicht kannte, an.

- the subject and object complements of many verbs can only occur either in the initial field or in the final field, cf. (16)/(17); daß complements of es heißt, es scheint only in the latter.

(16)(a) Daß es wahr ist, habe ich schon lange gewußt.
(b) Ich habe schon lange gewußt, daß es wahr ist.
(c) +Ich habe schon lange gewußt, daß es wahr ist, gewußt.

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(15) The first to point this out was Koster (1975:134f.), who calls this explanation ad hoc. The factual line of argument taken up here is essentially his, although not fully spelled out in his paper. – I also agree with Koster's conclusion that in his transformational framework, unlike in Bartsch/Vennemann's, a principled account of these data is possible, although I do not believe that it is the only one allowing this.

(16) A different conclusion is implicit in Dean's (1976) discussion of the Vennemann/Bartsch hypothesis: to him it is the position of the governing verb ('main verb') – be it finite or infinite, be it in main or subordinate clauses – that determines the (dominant) adverbial order (1976:27). But this is only observationally better, not descriptively: (i) Sentences forming the sentence brace with a verbal prefix (Hans paßt ... auf) having the main verb in second position show the same ordering of adverbials as those having the infinite main verb at the end (such as (11)). This shows clearly that it is not main verb position that matters, but position within the sentence brace, i.e. within the middle field. (ii) The similarities between clear cases of 'exbraciation' and cases like (8) are neither noticed nor accounted for, and thus we have only a name ('non-dominant order'), where we can have an explanation.

(17) The ordering of adverbials considered above is of course only part of the much general phenomenon of 'exbraciation' ("Ausklammerung"), some descriptive details of which are still unclear. – Note also that, in stating the above generalization, the possible interaction of factors such as theme-rheme structure, length and morphosyntactic make-up of the adverbials, etc. have not been taken into account.

(17) (a) Es ist peinlich gewesen, daß ihr fehltet.
    (b) Daß ihr fehltet, ist peinlich gewesen.
    (c) +Es ist, daß ihr fehltet, peinlich gewesen.

The rule(s) for 'exbraciation' ('Ausklammerung') of constituents of various other types must be added to this.

Whether these facts can be turned into conclusive arguments for the positional fields framework, is, however, far from clear. Thus, the positional rule for so daß clauses always come last, cf. cases with additional constituents in the final field such as (18),

(18) (a) Ich habe ihn für größer gehalten als er ist,
        so daß ich jetzt erstaunt bin,
    (a') +Ich habe ihn für größer gehalten, so daß ich jetzt erstaunt
        bin, als er ist.
    (b) Meier hat mir den Brief gegeben, der die Kreditvergabe
        betrifft, so daß ich jetzt informiert bin.
    (b') +Meier hat mir den Brief gegeben, so daß ich jetzt informiert
        bin, der die Kreditvergabe betrifft.

and, second, that in every grammar constructions ending with so daß clauses will, as a whole, have to be classed as 'sentences' of some kind ('S_k'), we can formulate the rule as follows:'So daß clauses are always placed at the very end of S_k (=immediately before the righthand S_k boundary)'. - And while for the other regularities mentioned above descriptions in terms of the positional fields framework can certainly be devised, alternative accounts which do not make use of the notion 'positional fields' do not seem to be that much worse. In no case that I have looked at so far, is the lefthand boundary of the finally field crucially involved. Moreover, since it is rare that the final field contains more than one constituent, and even rarer that a pair of constituents K_1, K_2 may appear together in the final field as well as the middle field, the possibilities of ordering patterns being distinctively bound to the final field are very slight. This of course does not weaken the argument in favor of the middle field:final field division presented in §2.1.1. Synchronically speaking, this division is present. But it is historically suggestive that it is not frequently made crucial use of, the many possible 'double analyses', with and without reference to the 'righthand part of the sentence brace' perhaps being a contributing factor to its dissolution.

2.2. The Initial Field

In transformationally oriented literature, the facts and problems to be treated here usually have come under the heading 'topicalization'. This term is usually taken in an exclusively syntactic sense, roughly equivalent with 'fronting'; the empirical question to be answered in formulating this rule is which (nonverbal) constituents may appear under which conditions in sentence initial position. As a rule, the subject is taken to be the constituent normally occupying this position. But this is less important here than the way 'sentence initial position' is usually understood. Practically everywhere it has been tacitly assumed that 'sentence initial(position)' should mean just that, that is, the first nonverbal position after the leftmost clause boundary. Since no further qualifications are added, the X1 positions in all clause types listed in (19) qualify as 'sentence initial', or target positions for topicalization in the same way, unless rule ordering intervenes.

(19) (a) C_1 X1, X2, X3 ....V_{fin}
    (b) V_{fin} X1, X2, X3 ....$\emptyset/AIV$
    (c) $\emptyset$ X1, V_{fin}, X2 .....$\emptyset/AIV$
    (d) C_2 X1, X2, X3 ....V_{fin}

How far do we get with this assumption? As long as only full NPs (on subject, object, and adverbial functions) and certain types of adverbials are considered, no problems arise, cf. (20), where the direct object can be'topicalized' in all clause types. Besides, if unexpected asymmetries show up, cf. for example (21), semantic explanations are not implausible (cf. Huber/Kummer 1974:101f.).

(20) (a) weil deine Frau   das Auto hat,
    (b) Hat   deine Frau   das Auto?
    (c) Deine Frau   hat   das Auto.
    (a') weil das Auto   deine Frau hat,
    (b') Hat   das Auto   deine Frau?
    (c') das Auto   hat   deine Frau.

(21) (a) ?Ich habe nichts zu tun, weil das Auto meine Frau hat.
    (b) Ich kann heute nicht in die Stadt fahren, weil das Auto meine Frau hat.

But when examining topicalization of other constituents, this assumption breaks down, cf. (22):

(22) (a) Verehrt hat er ihn.
    (a') +weil/daß verehrt er ihn hat ...
    (a'') +Hat verehrt er ihn?

(b) Mit ihm verheiratet ist Erna schon seit Jahren.
(b') +Weil/daß sie mit ihm verheiratet schon seit Jahren ist,...
(b'') +Ist mit ihm verheiratet Erna schon seit Jahren ?
(c) ... Das alles erwähnte der Autor. Nicht hat er hingegen berücksichtigt, daß ...
(c') +weil/daß nicht er hingegen berücksichtigt hat, daß ...
(c'') +Hat er nicht hingegen berücksichtigt, daß ... ?

This is only a small sample of relevant cases, and it is not representative of all cases that topicalization causes an emphatic effect throughout.(18) But, nevertheless, the conclusion to be drawn is clear: it is necessary to further distinguish between different initial positions. And since we observe, moreover, that participles, (complex) DEV constituents in general, negation etc. may not appear immediately behind the verb in verb-second clauses either, cf. (23),

(23) (a) +Heute habe verehrt ich ihn.
(b) +Leider ist mit ihm verheiratet Erna schon seit Jahren.
(c) +Leider hat nicht der Autor berücksichtigt, daß ...

it is clear that the different positions can be defined in terms of the positional fields framework. It is precisely the initial positions of middle fields, where the appearance of these constituents is ungrammatical and precisely the initial position of verb-second clauses, the initial field, where it is not, cf. diagramm (24).

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(24) (a)   Y    Vfin   X1, X2, ...   ∅/AdV
     (b)        C1     X1, X2, ...   Vfin
     (c)        Vfin   X1, X2, ...   ∅/AdV
     (d)        ∅      X1, X2, ...   Vfin
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As a consequence, the 'fronting' regularities to be described now fall into two different categories, those involving the first position of the middle field, and those involving the initial field. Only the latter will be called topicalization proper. Topicalization in this sense covers the respective permutations of the nominal and adverbial constituents etc. mentioned above, and of constituents such as participles, (complex) constituents that exclusively permute to the initial field. Differentiating between the different NP permutations in

(18) Cf. Engel 1970:73ff.; 1977:41ff.; Beneš 1971

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this way is justified on independent grounds, as we shall see in § 2.3.1.

To sum up: the 'topicalization' data show clearly that the positional fields framework, in positing a separate initial field, provides a more adequate analysis. But it is easy to see that practically every grammatical framework has the means to do likewise, 'initial field' being easily translatable into the 'position before the finite verb in verb-second clauses'. And since the exclusion of certain constituents from middle field positions can be stated without mentioning this intranslatable notion at all - cf. for example 'alternatively to their (normal) position, DEV constituents etc. can only appear in the initial field' - , a formulation of the topicalization rule that does not make use of the notion positional fields is hardly more complicated either. Hence, with regard for the topicalization data, the advantages of the positional fields framework are, strictly speaking, only psychological: linguists working in it cannot miss the correct topological divisions, whereas outside this framework has happened often enough.(19)

2.3. The Middle Field

2.3.1. From what has been said in § 1.2 we should expect the middle field to be the most interesting area for testing the claims of the positional fields framework. And, in fact, conclusive evidence can be found especially when looking at the ordering patterns of personal pronouns, cf. (25) and (26):

(25) (a) Sie hat ihm doch leider mehr vertraut als angebracht.
(a') Ihm hat sie leider doch mehr vertraut als angebracht.
(b) Und sie hat ihm dann auch vorgeschlagen.
(b') Und ihm hat sie dann auch vorgeschlagen.

(26) (a) Leider hat sie ihm doch mehr vertraut als angebracht.
(a') +Leider hat ihm sie doch mehr vertraut als angebracht.
(b) Und gestern hat sie ihm dann auch vorgeschlagen.
(b') +Und gestern hat ihm sie dann auch vorgeschlagen.

(27) (a) Hat sie ihm doch mehr vertraut als angebracht ?
(a') +Hat ihm sie doch mehr vertraut als angebracht ?
(b) Und hat sie ihm dann auch vorgeschlagen ?
(b') +Und hat ihm sie dann auch vorgeschlagen ?

(28) (a) Weil sie ihm doch mehr vertraut hat als angebracht.
(a') +Weil ihm sie doch mehr vertraut hat als angebracht.
(b) Weil sie ihm dann auch vorgeschlagen hat.
(b') +Weil ihm sie dann auch vorgeschlagen hat.

(19) A striking example is Huber/Kummer 1974:ch.4, where missing the correct topological divisions leads to an outright mistreatment of the

These data are conclusive in two respects: first, they show that the ordering patterns are not the same in all clause types. While in (25) the subject pronoun and the object pronoun may change places, with the 'DO/IO before SU' being only more marked, this order is definitely ungrammatical in the different clause types (27), (28). This immediately rules out the option (available in the case of full NPs, cf. (20)) of formulating a general permutation rule in terms of the notion of 'clause'. - But, on the other hand, we also see that the ordering patterns of subject and object pronouns coming after the finite verb in verb-second clauses are the same as in (27), (28) - that is they are the same in all instances of the middle field. Since this term has to be used in formulating the rule in question and since this term is not translatable into the usual descriptive vocabulary, this rule provides clear confirmation for a framework that makes use of the notion 'positional fields'.

This result seems to be fairly typical for the ordering patterns of German (pro)nominal constituents in general. Whatever patterns we focus on, be it the relative ordering of direct and indirect object pronouns of various kinds of full noun phrases, or of pronominal and full noun phrases, it is almost invariably the case that the relevant regularities show up only if we choose 'middle field' as the topological frame.(20)

In fact it is hard to find a single case of nominal or pronominal ordering phenomena that has to be stated in terms of a different frame, notably 'clause'. Even the ordering of nominal constituents illustrated in (20) seems to allow a unified account in terms of the notion 'clause' only as long as we neglect the different conditions (relating to topic, comment and connective functions) which their appearance in the initial field and first position of the middle field is

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data. That this consequence is still as rarely explicit as it is within 'fieldless' treatments of nonverbal constituent ordering is usually not due to a more careful analysis of the data but to their incomplete treatment, normally the full NP constituents being considered only. A conspicuous exception is Thiersch 1978.

(20) Cf. the many regularities described in Lenerz 1977 passim.

subject to.

2.3.2. Another interesting set of data is provided by the occurrence restrictions on certain elements. It is wellknown that i.a. the socalled 'modal particles', the accusative pronoun es, the reflexive pronoun sich (especially if it is part of an obligatory reflexive construction) may occur in the middle field, but not anywhere else, notably not in the initial field(21), cf. (29) - (31):

(29)(a) Wir haben eben Glück gehabt./weil wir eben Glück gehabt haben,...
(b) Herbert paßt halt im Unterricht nicht auf./weil Herbert halt im Unterricht nicht aufpaßt,...
(a') +Eben haben wir Glück gehabt.
(b') +Halt paßt Herbert im Unterricht nicht auf.

(30)(a) Der Druck wird sich noch weiter steigern./weil der Druck sich noch weiter steigern wird,...
(b) Hans hat sich wieder fürchterlich aufgeführt./weil Hans sich wieder fürchterlich aufgeführt hat,...
(a') +Sich wird der Druck noch steigern.
(b') +Sich hat Hans wieder fürchterlich aufgeführt.

(31)(a) Wir haben es sehr gefördert, das Kind./weil wir es sehr gefördert haben, das Kind,...
(b) Herbert hatte es darauf angelegt, eingeladen zu werden./weil Herbert es darauf angelegt hatte, eingeladen zu werden,...
(a') +Es haben wir sehr gefördert, das Kind.
(b') +Es hatte Herbert sehr darauf angelegt, eingeladen zu werden.

While the absence of these constituents from the initial field obviously can be described in terms of a framework that does not make reference to the positional fields (it is already implicitly accounted for by the topicalization rule which specifies all the constituent types that may occur before the finite verb in verb-second clauses, cf. § 2.2), the position(s) in which they may be present just as obviously cannot be described in these terms. Reference to the middle field is, in one way or another, unavoidable.

2.3.3. The elements figuring in the occurrence restrictions just mentioned possibly yield a further argument in favor of the positional fields framework: All of them are 'atonic';

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(21) This is notable only, because the initial field admits at least similar adverbial and pronominal elements whereas the exclusion of these constituents from the final field and from DEV is already covered by more general rules.

that is, they cannot be stressed or focussed, thus falling under Wackernagel's law which states that, in all Indo-European languages, atonic elements push towards the beginning of the clause, into second position. (22) In examining examples such as (32), it is immediately obvious that, in New High German, this law does not operate in terms of the notion 'clause' but rather in terms of the notion 'middle field', the relevant (second) position being the position right after its boundary elements (which are C_1, C_2 conjunctions, finite verbs, $\emptyset$).

(32)
(a) Leider hat ___ der Hans zu lange zurückgehalten.
(b) Hat ___ der Hans zu lange zurückgehalten?
(c) Weil ___ der Hans zu lange zurückhielt, ...

    sich: + v
    es: + v
    Gestern + v

(33)
(a) Gestern sind ___ viele Leute der Auffassung gewesen, daß ...
    Sind ___ viele Leute der Auffassung gewesen?
    Weil ___ viele Leute der Auffassung gewesen sind, daß

    halt: + v (?)
    ja: + v ?

(34)
(a) Leider hat ___ es ___ der Mann anders überlegt.
    sich: + v
(b) Leider hat ___ sich ___ noch nichts entschieden.
    ja: + v

(35)
(a) Leider hat ___ er ___ gestern nicht gewaschen.
    es: + v
    sich: + v
    ja: + v

To be sure, the elements in question may not always end up in this position, cf. (34), (35):

These examples show only that the atonic elements have to be mutually ordered, too, and that the competing regularities for pronoun placement in terms of case marking ('nominative before accusative' etc.) sometimes take precedence over Wackernagel's law; they do not rule it out of existence. If so, we have a placement rule that in defining the target position for atonic elements has to refer to the class of the various 'leftmost boundary elements' of the middle field. This provides strong confirmation for the positional fields framework, for it is only there that these elements can be conceived of as a natural class.

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(22) Cf. Wackernagel 1892:335ff.; New High German is dealt with pp. 405, 425ff.

2.3.4. I am not sure whether there are any further rules specifically referring to this class, although there is no lack of suggestive data. In verb-second clauses, for example, the normal position of floating quantifiers is to the immediate right of the finite verb, cf. (36) (23), and this is also the unmarked position for parentheticals, this position being always available, whereas others are only open depending on the place of focus, cf. (37):

(36) Die Künstler wurden ___ vom Regisseur ___ zum Essen ___ eingeladen.
    beide: + ? ? ??

(37)
(a) Die Künstler wurden ___ gestern ___ vom Regisseur ___ zum Essen ___ eingeladen.
    glaube ich: + ? ??
(b) Die Künstler wurden ___ gestern ___ vom Regisseur ___ zum Essen ___ eingeladen.
    glaube ich: + ??

Moreover, the ___ es ___ seems to clitize only when in contact with the middle field boundary, cf. (38):

(38)
(a) Weil er trinkt, aber es geheim bleiben soll, daß er trinkt, ...
(a') +Weil er trinkt, abers geheim bleiben soll, daß er trinkt, ...
(b) Ihn hat es gefreut.
(b') Ihn hats gefreut.
(c) Hat es ihn gefreut ?
(c') Hats ihn gefreut ?
(d) Weil es ihn gefreut hat, ...
(d') Weils ihn gefreut hat, ...

But neither observation can be readily generalized to the kind of rule we are looking for: In the case of quantifiers, we note that they cannot float into the position right behind the middle field boundary in verb-first nor in verb-final clauses if the head NP is also present, cf. (39):

(39)
(a) Wurden ___ die Künstler ___ vom Regisseur ___ zum Essen ___ eingeladen ?
    beide: + v ? ??
(b) Weil ___ die Künstler ___ vom Regisseur ___ zum Essen ___ eingeladen wurden, ...
    beide: + v ? ??

There are several ways of accounting for these data.

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(23) Cf. Reis/Vater 1980:362-364

- Noting that the normal position of beide in (39) is right behind the head the head NP we might explain them in terms of rule interaction, the putative rule 'floating quantifiers may not cross their head NP' winning out over the tendency for floating quantifiers to come right behind the middle field boundary. If so, beide placement would indeed be a further rule confirming the leftmost boundary elements of the middle field as a natural class. But whether this so, is at best an open question, since a plausible descriptive option is available: Noting that beide as an independent constituent is always to the right of its head NP unless topicalized, the simplest description accounting for (36) and (37) will be that beide tends to be as close to its head NP as structurally possible.

Closer inspection of parentheticals yields a comparable result, also for different reasons. The occurence of parentheticals is restricted in two ways. They may qualify only assertive speech acts and these, moreover, must have declarative form. (24) As a consequence, parentheticals do not appear in verb-first nor in infinitival middle fields at all, and inasmuch as their use is extended to assertive verb-final clauses, the result seem to me uncertain, possibly subject to differences in conjunctions, cf. (40) :

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(40) (a)   Weil ___ die Künstler ___ gestern ___ vom Regisseur ___ zum Essen ___ ein-
           geladen wurden-
             ??
       ?            ??
           glaube ich:
             ??          ??
                          ?
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Hence, we simply do not have the data to decide whether the unmarked position of parentheticals in (37) is to be defined as 'to the immediate right of the leftmost boundary of the middle field' or not. Hence, the argument value of the corresponding placement rule remains necessarily uncertain, too.

(24) That neither condition is sufficient by itself is shown by cases such as (i)/(iii), where declarative form and assertive function do not correlate:
   (i))a)   Wer will das schon ? (=Assertion of 'Keiner will das')
       (b)   +Wer will das, glaube ich, schon ?
   (ii) (a) Du bist jetzt augenblicklich still. (=Request)
        (b) +Du bist jetzt, glaube ich, augenblicklich still.

Not even the clitic data provide a direct argument in point. Upon further analysis, we observe a) that es does not only cliticize in the positions illustrated by (36), but in all positions it has access to by the normal pronoun placement rules, cf. (41) ; and, furthermore b) that the additional positions open to cliticized es have nothing to do with the middle field boundaries, cf. (42). Hence, whatever the rule of cliticization is, it will not have to refer to the class of the leftmost boundary elements of the middle field.

(41) (a)   Weil ich es Peter gebe, ...
     (a')   Weil ichs Peter gebe, ...
     (b)   Weil Peter es ihm zeigt, ...
     (b')   Weil Peter's ihm zeigt, ...

(42) (a)   +Wir geben ihm es.
     (a')   Wir geben ihms.
     (b)   +Er macht sich es klar.
     (b')   Er macht sichs klar.
     (c)   +Wir lassen ihn es schon spüren.
     (c')   Wir lassen ihns schon spüren.
     (d)   +Heute gibt es er ihm.
     (d')   +Heute gibts er ihm.
     (e)   +Weil es ich hasse, wenn ...
     (e')   +Weils ich hasse, wenn ...

Nevertheless, in arguing for the positional fields framework, there remains one interesting fact concerning the clitics: cliticized constituents may only appear in the middle field, never in the initial field, cf. (41) vs. (43).

(43) (a)   +Ichs gebe ihm.
     (b)   +Peter's zeigt ihm.
     (c)   +Ihms geben wir.
     (d)   +Ihns lassen wir schon spüren.

Since it is reasonable to assume that ichs, ihms, ihns, Peters, etc. are just one constituent, and since we know from their behavior with regard to placement rules working in the middle field that adding the middle field as the domain where the clitic s does not change constituent type, the absence of these constituents from the initial field is not accounted for by the rule of topicalization as it stands. While there are several ways of formulating the necessary addendum - the transformational way might involve ordering the topicalization rule before cliticization -, the necessity of explicitly specifying the middle field as the domain where cliticization may take place seems almost unavoidable. Or, to put it less transformationally, there must be a rule saying that cliticized constituents may appear in the middle field, and only there, thus adding to the evidence presented in § 2.3.1. and 2.3.2.

3. Final comments

The results of the previous sections leave no doubt that the specific empirical claims made by the positional fields framework are justified 25. Hence a grammar able to incorporate this framework directly, in a principled way, will be much better equipped to describe the ordering regularities of German nonverbal constituents than others. But even 'much better' is not necessarily equivalent to 'good enough', and there is, in fact, some cause for at least contemplating whether further refinement is necessary:

3.1 In the 1972 version of Engel's topological model, the various slots of the positional fields framework, especially the middle field, are further devided up into a fixed number of positions, each of which may be occupied by just one constituent (1972:31). While Engel may have had purely practical reasons for employing this 'grid', similar proposals have been made often enough (cf. especially Clausen 1969) to warrant asking whether this additional descriptive machinery does have some empirical motivation after all. Focussing on the difference between this conception and the 'bare' positional fields framework one might say that a 'bare' framework mounts to claiming that the ordering of constituents inside the different fields depends entirely on the nature of the constituents involved, the rules being in principle totally relative, whereas an 'enriched' framework also leaves open the possibility that ordering rules are sensitive to the absolute position of the constituents involved. Thus, in this framework rules such as 'A precedes B, when B occupies the 10th position, but follows it otherwise' or 'A precedes B, if C is in the 12th position, but follows it, if the 12th position is empty / occupied by D', etc. would be expected to exist, whereas in the 'bare' framework they could not even be formulated. As far as I can see, however, there is no evidence, nor has any ever been offered, that this additional descriptive power is really needed.

(25) That many suggestive data discussed in § 2 ultimately turned out to be inconclusive in no way detracts from this conclusion. Recall that at least same (not necessarily all) linguistic rules crucially refer to them. Rather, discussing those inconclusive cases served making a methodological point too often unappreciated: Points of theory cannot be confirmed (nor refuted) by just presenting data however suggestive, but only by presenting the rules that account for them. In short, arguing about the positional fields framework is a question of descriptive, not of observational adequacy.

3.2. There is another descriptive tendency one might wonder about. Studies in the positional fields tradition usually state the ordering regularities observed in terms of 'the initial field', 'the middle field', 'the final field'; often enough, however, no more than one type of the respective fields has been looked at. What usually happens, then, in investigating topicalization, is that the data are taken from normal main clauses only. But the presupposition that they are representative for all verb-second clause types is a bit premature, cf. (44) vs. (45):

(44) (a)   Er hätte ihn geschlagen!
     (a')   Geschlagen hätte er ihn!
     (b)   Peter besucht den Chef morgen.
     (b)'   Den Chef besucht Peter morgen.
     (c)   Du besuchst den Chef erst morgen.
     (c)'   Den Chef besuchst du erst morgen.
     (d)   Geld hat er keins.

(45) (a)   Er wünschte, er hätte ihn geschlagen.
     (a')   ?? Er wünschte, geschlagen hätte er ihn.
     (b)   Weil er wünschte, er hätte ihn geschlagen, schänte er sich.
     (b)'   *Weil er wünschte, geschlagen hätte er ihn, schänte er sich.
     (c)   Es ist besser, Peter besucht den Chef morgen.
     (c)'   +Es ist besser, den Chef besucht Peter morgen.
     (c)'' Es ist besser, du besuchst den Chef erst morgen.
     (d)   Es ist besser, du besuchst den Chef erst morgen.
     (d)'   +Es ist besser, den Chef besuchst du erst morgen.

It is of course not unimaginable that the differences in question can be entirely explained away by appealing to the different semantic and pragmatic factors involved, but it should not be taken for granted. While, e.g., in the case of particle preposing (cf. (45) a, b) an explanation along the lines of Hooper/Thompson (1973) immediately suggests itself, no such explanation is readily available for the different acceptability of object preposing in (44) (b)', (c)', (c) vs. (45) (c)', (d)'. Hence, at present we cannot be certain that a basic subclassification of initial field types is unnecessary. – The same is true, in principle, for the middle field, where especially infinitival and verb-first clauses usually remain unconsidered, although on the basis of some preliminary probings I am confident that talking about the middle field will turn out to be correct.

3.3. A really serious problem arises, however, with respect to the final field. It is an implicit assumption of all studies in the positional fields tradition, reflected also by diagram (3),

that the fields are juxtaposed to each other, all of them being clause immediate 'constituents' so to speak. But in the case of the final field matters are not as simple as that, cf. (46):

(46) (a) Die Möglichkeit, etwas zu verändern ist damit verschüttet für lange lange Zeit.

(a') Verschüttet für lange lange Zeit ist damit die Möglichkeit, etwas zu verändern.

(b) Die Staatsverschuldung ist leider noch stärker angewachsen, als selbst Pessimisten prophezeit hatten.

(b') Noch stärker angewachsen, als selbst Pessimisten prophezeit hatten, ist leider die Staatsverschuldung.

(c) Wir haben schon seit langem gewußt, daß du kommst.

(c') Gewußt daß du kommst haben wir schon seit langem.

(d) Ich will den Mann auf keinen Fall treffen, der sich gestern so unmöglich benommen hat.

(d') Den Mann noch einmal treffen, der sich gestern so unmöglich be-nommen hat, will ich auf keinen Fall.

(e) +Wir haben geradezu geliebt ihn.

(e') +Geliebt ihn haben wir geradezu.

(f) +Alle werden, daß du zurücktrittst, bedauern.

(f') +Daß du zurücktrittst, bedauern, werden wir alle.

(46) shows clearly that, when complex verbal constituents appear in the initial field, the dependent element may/must follow the governing verb just in case it may/must otherwise appear behind DEV in the final field. Given this systematic correspondence it is reasonable to assume that the constituent structure is the same in both cases: in other words, für lange, lange Zeit in (46) a', als selbst Pessimisten prophezeit hatten in (46) b', etc. are in final fields also. But this means that the final field need not be in static juxtaposition as the usual diagram suggests but rather may become embedded in the initial field of the same clause. To put it more precisely: Since only one constituent may appear in the initial field a final field must be part of the respective constituent, which means that the final field is not beside DEV but subjoined to it.

While this conclusion is forced by data such as (46), there remains evidence to the contrary. So daß clauses never follow along into the initial field and there are 'split' final field cases such as (47), both facts showing that a final field must exist after all.

(47) Geradezu hinausschreien in alle Welt möchte ich (es), wie empörend ich das finde.

The picture is further complicated by data such as (48)/(48'):

(48) Man wird ja wohl noch fragen dürfen, ob einer links oder rechts wählt.

(48)' Fragen, ob einer links oder rechts wählt, wird man ja wohl noch dürfen.

They seem to show that under certain conditions a governing verb and a final field may form a complex constituent of the initial field, although they are not even adjacent in their normal position. This makes arguing about the constituent structure of DEV and final field much more difficult, to say the least, the best hope being that cases such as (48) can be dismissed as marginal - as patch up cases. Considering that acceptable examples like (48)' are very hard to find, this hope may not be unjustified. But no matter how these cases are ultimately handled, there can be no doubt that the data discussed in this section cannot be entirely accounted for within the positional fields framework as it stands; a further refinement is in order.

In other words, these data add further to the topological 'frame' conditions an adequate grammar for German has to meet. Given their intricacy any grammatical model able to meet this condition and the others discussed in the previous sections will have to be fairly rich. As far, as I can see, it will have to at least allow for multiple levels of representations and/or 'processual' means of description. While it is tempting to speculate on how the existing models would fare under these conditions, this would open up a field much too wide to be covered here. Hence, it might be better to leave it for some other time.

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