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MORPHOSYNTACTIC PREDICATION

A functional - operational

approach

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1. Delimiting the scope of investigation

As a traditional notion of fundamental importance in linguistics and philosophy (logic), "predication" is fraught with controversial issues.[1] It is thus difficult to delimit the scope of this paper without becoming involved in some major issue. The following distinctions seem to me to be plausible on an intuitive basis. Evidence for why they are useful and legitimate will be found in the body of the paper.

The discussion will focus on morphosyntactic predication as exemplified in:

1) He ran to his mummy.

His trousers are yellow.

Morphosyntactic implies the exclusion of purely semantic or word-formational phenomena and conceptions of predication. There are, for example, some compounds where the relation between the parts is said to be predicative, e.g. German Hosenrock 'trouser-skirt = culottes' (Löbel p.c.). Furthermore, it is sometimes claimed that in certain attributive syntagms like the running mummy or his yellow trousers the relation between modifier and head is semantically (underlyingly) a predicative relation. Weinreich's concept "linking" (1963:163ff), for example, which he says is "equivalent to the classical S-P operation" (1963:199), comprises both His trousers are yellow and his yellow trousers. I will not deal with the intricate problem of the interrelation of attribution and predication[2] and will exclude attributive constructions from further consideration, since I believe that this topic can

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1. Jespersen (1924 Chapt. XI), Sandmann (1954 Part II) and Daneš (1977) give comprehensive surveys of some of the issues involved. See Hockett (1958:201ff) for a standard structuralist treatment, Williams (1980) for a transformational approach. For the much discussed interaction of logical, grammatical and psychological considerations see Marty (1897/1918) and Sundén (1916:3ff). Searle (1969 Chapt.5), Tugendhat (1976) and Runggaldier (1985:24-48) give comprehensive outlines of different approaches taken within the philosophy of language.

2. See Jespersen (1924:114ff) and Lehmann (1984:173ff) for a discussions of some of the issues involved.

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successfully be dealt with only if the problems involved in
the concept of morphosyntactic predication have been brought
closer to a solution.

Leech (1981:124ff) conceives of predication as belonging
exclusively to semantic structure, the corresponding
syntactic unit being the sentence. In his terms, predication
is the major unit of the meaning of a sentence. I hold that
morphosyntactic structure is a unity of content and form and
that it is not correct to treat one without reference to the
other. A reasonable conception of predication has to be
capable of explaining the details of the morphosyntactic
form it takes, as well as of the shades of meanings
associated with them.

Within morphosyntactic predicative structures I
differentiate between major and backgrounded[3]
predications. The latter are exemplified by the underlined
sections in the following examples (taken from Williams
1980:203):

2) John ate the <u>meat</u> <u>raw</u>.
   <u>John</u> ate the meat <u>nude</u>.
   John made <u>Bill</u> <u>mad</u>.

Note that Williams treats both (1) and (2) as instances of
predicate structure, which he defines as the "level of
representation in which the subject-predicate relation is
indicated by indexing" (l.c.). I will only be concerned
with major predications.

Focussing on morphosyntactic predication does not mean
that in this paper predication is conceived of as a purely
structural concept.[4] On the contrary, it is conceived of
as a basically <u>operational notion</u> comprising <u>a linguistic</u>
<u>act and its structural correlate</u>, i.e. the act of
predicating and the predicative structure(s) it is

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3. The term is taken from Weinreich (1963:172). Jespersen (1924:122) and
Gardiner (1960:262) use the term "subordinate nexus". Leech (1981:142ff) calls it
"subordinate predication".

4. As done by Williams, see his definition of predicate structure cited above.

manifested in.[5] Traditionally act and structure are dealt with in different disciplines. Philosophy is concerned with the operational aspect, usually called _judgment_ there. Linguistics has primarily focussed on the structural aspect; very often the treatment of phenomena relevant to predication will be found under the clearly structural headings _sentence_ or _clause_. The operational aspect, if considered at all, is often termed _assertion_.[6]

Philosophers often tend to gloss over differences in linguistic structure claiming that it is not relevant to their investigation, or even misleading . Linguists, on the other hand, are often content to classify and categorize on the basis of differences in structure without looking for an underlying unity and inherent organization of the phenomena. Within the UNITYP-approach it is considered essential to proceed on both lines of investigation, because the act cannot correctly be understood without taking the linguistic structures it is manifested in into account (and vice versa).

Given that the operational aspect is not directly visible, it is often claimed that the data are the only input to a linguistic investigation. From this point of view, one has to reconstruct the basic operation and its components from the data and, within the same process, assess the inherent organization of the data. But this is not wholly correct since there is always an intuitive preconception concerning the area under investigation, which, among other things, is

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5. Note that the difference between act and structure is not just another phrasing of the difference between content and form mentioned above. "Structure" in the former distinction comprises content and form.
For the following brief outline of UNITYP methodology, esp. the operational aspect, cf. Seiler 1979, 1982:3ff, 1983:9ff, 1985a, 1986.

6. E.g. Mathesius (1929/83:124f, 1975:81ff) and Sasse (in prep.); both also use the term as a general notion for all kinds of predicative structures. Their use of the terms predicative/predication is restricted to one kind of predicative structure, i.e. a structure that involves a subject (a predication-base) and a predicate. I have chosen to take predication as the general notion, since, to my knowledge, all phenomena to be touched upon in this paper have in some way or other been dealt with under this heading. It thus seemed to me to be the most suitable term for the unified conception aimed at in this paper. For the following discussion it may be useful to keep in mind that my predication comprises what some call assertion plus its structural correlates and that Mathesius' and Sasse's "predicative" here is called "bipartite" or "categorical" predication (more on that below).

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responsible for making a certain set of data the object of
investigation in the first place. There is nothing harmful
about such intuitive input into the investigation, as long
as it is consciously dealt with in the analysis.
Consequently, the following two lines of investigation are
to be pursued for the present topic: On the one hand, the
intuitive notion of predication - as it is manifested in
many characterizations of predication found in the
literature and in the intuition about what is predicative
and what is not - is to be developed into a more explicit
notion capable of providing an organizational pattern for
the data. On the other hand, starting from the data, the
common denominator of predication is to be reconstructed.
Or, phrased differently, the components of the predicative
act are to be assessed following traces that are evinced by
predicative structures. One line presupposes the other and,
since both lines cannot be pursued at the same time, it
follows that one has to jump to and fro between intuitive
conception and data, until the gap between them has (to a
reasonable extent) been narrowed.

A terminological note has to be added: Within the UNITYP framework
prominent use is made of the notion of _predicativity_ as opposed to
indicativity. This notion is to be set strictly apart from the notion
of syntactic predication. Predicativity is a gradual notion referring
to linguistic techniques on a continuum. Predicative techniques are
more relational, more syntactic than indicative techniques (cf.
Seiler 1986). They also involve an increased use of structural
machinery to achieve a linguistic function. Predication denotes a
basic linguistic act. As long as the nouns "predicativity" and
"predication" are used, the difference will always be salient, but
the related adjective ("predicative") is the same for both. Unless
otherwise indicated, "predicative" is used here in the sense of
predication.

2. The basic intuition and the problematic data

A first - and the traditionally most prominent - intuition on predication consists in the assertion that there are two parts to it, the subject and the predicate, which are linked together in the act of predication. For centuries these two parts have been defined in the following fashion:

> "... subjectum est de quo dicitur id quod praedicatur. Praedicatum est quod de eo dicitur quod subjectum est." (Boethius, ed. Migne, Patrologia Latina, 64, p.1130)

To quote one further example from more recent times:

> "... predication, in its shortest and pithiest definition, consists in saying something about something ... Now our main concern with predication in the next few sections will be in connexion with the division of many sentences into two parts, (1) the part referring to the thing spoken about, which is called the subject, and (2) what is said of the subject, namely the predicate." (Gardiner 1960:255f)

Although these two components have dominated the discussion of predication, there has always been an intuition that, strictly speaking, the predicate expression combines two functions, i.e. that of "saying something" and that of indicating a link or nexus between subject and predicate. To give just one recent example:

> "In any ground-level linguistic expression of a judgement ... we distinguish three functions: that of specifying the particular(s) concerned; that of specifying the general concept concerned (...); and that of presenting particular(s) and general concept as assigned to each other in such a way that you have a propositional combination, true if the particular (...) exemplifies the concept, false if not." (Strawson 1974:22)

Such a conception is particularly perspicuous in cases where a copula is involved ("His trousers are yellow"). Many philosophers even claim that there is essentially no difference between He goes and He is a goer, since the

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7. This view involves the assumption that predicate expressions refer to sth. in a way similar to subject expressions. This view is under heavy attack from the analytic school which claims that a predicate merely is an unsaturated linguistic expression and to look for anything more is nothing but spurious metaphysics (for a brief sketch of the controversy see Runggaldier 1985:26ff). It is not yet clear to me, whether there is anything of interest for linguists in this controversy.

latter only explicitly shows the copula which is underlyingly involved in the former as well.[8]

Many constructions in Indo-European languages[9] fit the intuition about predication outlined above perfectly, i.e. there is a subject and a predicate and the latter says something about the former. But there are several problematic cases, the most well known being meteorological expressions (3) and presentative constructions (4):

3) It's raining.
4a) There was yet a visit to the doctor. (J. Conrad)
 b) There was a confused tramping of horses' feet outside.

(D.H. Lawrence)

In both cases it is difficult, if not impossible, to give an analysis in terms of subject and predicate. In (3) nothing is said about the _it_, since it does not refer to anything. It is therefore called a "dummy subject" to indicate that it simply fills a given structural slot in English clause structure. In (4) <u>a visit to the doctor</u> and <u>a confused tramping of horses' feet</u> would qualify for subject status, if there were a predicate. But nothing is said about them – note that it does not mean <u>a visit to the doctor exists</u> (if that is a reasonable statement at all) – and thus again there is no subject-predicate nexus.[10]

The dissatisfaction with the traditional conception of predication because of these and similar problems (see also the theoretical problem hinted at in FN7) gave rise to three developments at the end of the 19th century, all of which try to overcome some of the problems involved. I will

8. See already Aristotle (Met. D, 7. 1017a 26), cf. Steinthal 1890:241. Other authors are reviewed in Kramp 1916:14ff. In section 5 this conception of predication is discussed at some length.

9. The discussion will first focus on (primarily modern) members of this language family, within which the notions of predication, subject and predicate have been developed and employed for a long time.

10. The exact analysis of these constructions is not important at this point of the argument. The claim to be granted is that they cannot be analysed in terms of subject and predicate as they are traditionally defined. Detailed accounts of the opinions that have been aired on behalf of these constructions are found in the literature quoted in FN1.

briefly review those points which are of importance for my argument.

First, Frege's attempt to reduce arithmetic to logic achieved the breakthrough for modern logic, which is closely associated with the predicate calculus (as opposed to the traditional propositional calculus).[11] The notions "subject" and "predicate" are dispensed with, their place being taken by the concepts of reference and relationality. Predication is conceived of as a relation holding between a central relational term, the (logical) predicate, and its argument(s). This conception received its most suggestive phrasing in formulas such as P(x), P(x,y) etc.. Predicates are classified as to how many slots they provide for arguments (one-place, two-place, three-place), meteorological expressions (cf.(3)) being classed as zero-place predicates. Presentative constructions (cf.(4)) are taken care of by existential quantification. The morphosyntactic structure of the linguistic expression of a (logical) predication is not considered to be of importance. Thus from a (modern) logical point of view there is no difference between Peter kissed the unicorn and The unicorn was kissed by Peter, since, logically speaking, there is only a relation of kissing between the (ordered) pair (Peter, the unicorn). This way a uniform treatment of predication is achieved, capturing the intuition that (1), (3), and (4), despite their quite different morphosyntactic structure, are predications. Although the same goal is pursued in this paper, this approach cannot be adopted, since it evades the central concern of providing for a link between morphosyntactic predicative structure and the basic predicative operation.
Two suggestions from this approach, however, seem to be valuable for the present enterprise: In cases where there is no clear subject-predicate structure to be detected in morphosyntactic predicative structures, it may well turn out that these can be adequately described with formulas such as P(a,b). Thus, the suggestion has to be considered that,

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11. Cf. Bocheńsky 1962:312ff, Thiel 1972, Dummett 1973.

rather than claiming that there must always be a subject and a predicate to a predication, a predication always involves a referential and a relational component which may take the form of subject and predicate, but which do not have to do so.

Second, the most prominent trend at the time was to try to save the traditional concept of predication by separating several levels. To this end, the notions of grammatical, logical, and psychological subject/predicate were introduced.[12] The almost violent discussion concerning these concepts at the time seems rather obscure today and will thus not be dealt with here. There is, however, one point of interest. There was hardly any discussion as to what the notions grammatical subject and predicate referred to. The former is identified as the NP in the nominative case which governs verbal agreement, the latter as the finite verb-form. For IE languages in which the case system has broken down, immediate preverbal position is taken as criterial (in place of the nominative). Thus there has not been and, as far as I can see, there is no doubt about the fact that the formal feature - NP in nominative case triggers verb agreement - is a structural manifestation of predication in IE languages. This becomes relevant, when discussing examples like:

5a) Some chapters I physically could not find ...
                              (Dummett 1973:XI)
  b) Eine neue Trennungslinie zog Weber.
          (Helfritz 1981:14;starting a new paragraph)

Here intuition clearly picks out <u>some chapters</u> and <u>eine neue Trennungslinie</u> as "that spoken about". In (5b) this is confirmed by the fact that the whole of the following paragraph is about the new borderline. But applying the structural criteria just mentioned, <u>I</u> and <u>Weber</u> clearly are the (grammatical) subjects. Functional Sentence Perspective (FSP), being an offspring of the said trend, distinguishes between a functional and a formal sentence level in order to

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12. See FN 1 for the relevant literature. Kramp 1916 provides a brief overview of the interrelation between logic and linguistics up to the end of the 19th century.

provide for this discrepancy. The former is the level of theme-rheme structure, the parts of which are defined as the "element about which something is stated" and "what is stated about the basis" (Mathesius 1975:81). Subject and predicate belong to the formal sentence level and are solely defined in grammatical terms.[13] Within the present discussion the question as to which level the predicative act pertains to naturally arises; to theme-rheme structure, to (grammatical) subject and predicate, or to both? If one opts for the first solution, the task remains to explain the formal characteristics of subject and predicate. If one interprets them as structural manifestations of the predicative act and thus opts for the second possibility, the characterization of predication has to be modified, since "saying something about something" applies equally well to theme-rheme structure. To my knowledge, FSP does not take an explicit stand on this issue and does not account for the formal characteristics of subject and predicate either.[14]

Hockett (1958:201) opts for the third possibility. His definition of predication is almost identical to the traditional one:

> "The most general characterization of predicative constructions is suggested by the terms 'topic' and 'comment' for their ICs: the speaker announces a topic and then says something about it."

Applying this definition to constructions of the type given in (5a), he states that in <u>That new book by Thomas Guernsey I haven't read yet</u> <u>that new book by Thomas Guernsey</u> is the topic, the comment itself consisting of another topic-

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13. On FSP see Mathesius 1975:81ff, Firbas 1964, 1966, Daneš 1964, 1970/1974. For its historical setting and development see Adjémian 1978. Note that the opposition between given and new also plays a part in defining theme-rheme structure. Firbas treats theme/rheme exclusively in these terms.

14. If I understand Daneš (1964, especially the example given on p228f) correctly, he would probably opt for the first solution, i.e. to assign predication to the utterance structure. But this is somewhat speculative, since he does not explicitly talk about predication. In his 1977 paper, which is exclusively concerned with predication, he splits it up among the semantic, the formal and the utterance levels (p108).

comment construction (<u>I + haven't read yet</u>).[15] Thus (5a)
is considered to consist of two predications, one accounting
for the psychological subject (<u>some chapters</u>), the other for
the grammatical subject (<u>I</u>). There doesn't seem to be
anything wrong with such an analysis at first sight, and I
think it is perfectly adequate for the Chinese examples
adduced by Hockett (p202f). In the English examples,
however, it does not explain why the 'second subject'
governs agreement. This defect becomes even more obvious,
when one tries to analyse (5b) in this way: no reasonable
analysis for the comment (<u>zog Weber</u>) into topic and comment
can be provided (is <u>zog</u> or <u>Weber</u> the topic?), and the
formally indicated subject-predicate relation between <u>Weber</u>
and <u>zog</u> thus remains completely unaccounted for.

In my opinion, the second possibility seems to be the only
possible one in languages with a grammatical subject-
predicate structure, because I think that, if one holds that
agreement in (1) is a manifestion of predication, one also
has to stick to this analysis in problematic cases such as
(5).

> From a contemporary point of view the problem allows for a different
> solution, if one accepts the claim that the subject-relation is an
> amalgam of semantic and pragmatic factors (cf. Sasse 1982). The
> latter are concerned with the topic properties of the said relation,
> the former pertain to role-structure. Thus one could hold that in
> examples like (5) agreement solely signals role-structure (<u>I</u> and
> <u>Weber</u> are agents), the topic properties of the subject-relation being
> "neutralized" by topicalization (5a) and inversion (5b) respectively.
> Although such an analysis sounds feasible to me, it does not solve
> the basic problem considered in this section; rather it supports the
> claim that predication cannot be captured in the formula "saying
> something about something", because role-structure, being an
> ingredient in the subject-relation, lies outside the range of this
> formula.

This brief discussion makes it obvious, I think, that
the traditional characterization of predication, i.e.
"saying something about something", rests on the fact that

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15. Hockett also uses the notions "subject" and "predicate", but does not define
them. He only remarks that they "are one variety of topic-comment constructions"
(1958:202). But from the discussion of English and Menomini examples one can infer
that they are defined in the same formal manner as is done within FSP (NP
governing agreement). Interestingly enough, he does not use these two terms when
discussing Chinese examples. See Li/Thompson 1976 for some differences between
subject and topic from a typological perspective.

the grammatical subject - in IE languages - is very often
also the topic. This is not necessarily a false conception
of predication. Topic-comment structure may very well be a
structural manifestation of predication, especially in
languages like Chinese, where there is no agreement to
indicate a subject-predicate relation. But since there are
languages that show this feature and where the thus
grammatically defined subject-predicate relation does not
always coincide with topic-comment structure, predication
has to be characterized in such a way that it does not
necessarily imply topic-comment structure, although it
probably should allow for it. In other words, there has to
be something more basic to predication than the formula
"saying something about something". The formula is but one
illustration of this something more basic.

Third,[16] A.Marty, following up some suggestions
by Brentano, claimed that a judgment (i.e. the operational
aspect of predication, see above p2f) does not necessarily
consist of two parts:

> "Ein Beispiel eines Urteils ist jedes Glauben oder
> Leugnen, Anerkennen oder Verwerfen, und dieses
> entgegengesetzt urteilende Verhalten kann sowohl auf
> einen einfachen als zusammengesetzten Vorstellungsinhalt
> gerichtet sein. Wohl bildet irgend ein Vorstellen die
> unentbehrliche Grundlage des Urteilens. Aber daß eine
> Zusammensetzung und Verknüpfung von Vorstellungen
> vorliege, gehört durchaus nicht zu den notwendigen
> Bestandstücken des Vorgangs." (1887/1918:312)

Rather, he claims, there are two kinds of judgments, the
categorical and the thetic (quoted from Kuroda
1972/73a:154):

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16. This section heavily draws on the work done by Sasse (in prep.), Ulrich (1985)
and Wehr (1984), to all of whom I am very grateful for introducing me to the
phenomena and concepts to be dealt with and for giving me a chance to participate
in their discussions. Marty's theory is outlined in a series of articles (Marty
1884-95/1918, 1897/1918) which are rather unpleasant reading, since they are
mostly concerned with polemics against his contemporaries. His work has been
rediscovered for linguistics in two articles by Kuroda (1972/73 and 1972/73a), the
second of which (1972/73a) giving a clear and comprehensive outline of the theory
and an illustration from Japanese. Sasse (in prep.) further refines the concepts
involved and makes them typologically relevant (cf also Sasse 1984).

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> "Of these, only the former conforms to the traditional
> paradigm of subject-predicate, while the latter
> represents simply the recognition or rejection of
> material of a judgment. Moreover, the categorical
> judgment is assumed to consist of two separate acts, one,
> the act of recognition of that which is to be made the
> subject, and the other, the act of affirming or denying
> what is expressed by the predicate about the subject.
> With this analysis in mind, the thetic and the
> categorical judgments are also called the simple and the
> double judgments (..)."

Prominent examples for thetic judgments are meteorological
and presentative expressions (see (3) and (4)), both of
which necessarily involve just one unitary concept and thus,
by their very nature, do not allow for a truly bipartite
(categorical) expression. But it is not necessary for a
thetic judgment to involve only material that inherently
does not allow for a partition. The choice between thetical
and categorical is not one solely governed by the complexity
of the state of affairs to be expressed, but it is governed
by discourse factors as well (see below).
Marty himself conceived of this dichotomy in primarily
logical terms and did not take structural characteristics
into account. But there are also formal phenomena that
structurally manifest the unity of the thetic predicative
act. Most of these strategies, in particular within IE
languages, have to be understood on the basis that the
dominant predicative act is the bipartite (categorical) one.
Thetic expressions are thus geared at avoiding the bipartite
clause structure central to a given language system. This is
especially important in cases where the state of affairs to
be expressed allows for a partition. In meteorological
expressions like (3), on the other hand, formal bi-partition
(via dummy _it_) does not do any harm, since they do not
inherently allow for a categorical reading. As for the other
cases, it is to be expected that the thetic form of
predication is characterized by the attempt to neutralize
grammatical bi-partition as it is manifested in agreement
and the special position (or case) of the subject NP. I will
only give a few examples, since the above-mentioned
strategies are amply exemplified in Wehr (1984), Ulrich
(1985) and Sasse (in prep.):

- In (4) <u>there</u> is pronounced with a centralized vowel and unstressed and is thus different from the deictic <u>there</u> (see Jespersen 1924:154f, Hetzron 1971:98). <u>There is</u> (and its negation <u>there is not</u>) is thus the linguistic sign of recognition (rejection), which characterizes thetic judgments, and it is not a predicate in the same way as it is exemplified by the second part of the bipartite judgment. The same holds for French <u>il y a</u> (cf. Martinet 1960:125).

- In thetic expressions there is often no agreement between the predicate and the NP that would be the subject in a categorical predication:

6a) Es <u>war</u> einmal ein Hühnchen und ein Hähnchen, ...
                    (Grimm, quoted from Wehr 1984:38)
  b) Et ecce apparu<u>it</u> illis Moyses et Helias.
            (Vet.Lat. Mt.17.3; Wehr l.c.)

   If <u>ein Hühnchen und ein Hähnchen</u> and <u>Moyses et Helias</u> were used as subjects in a categorical expression, agreement would be obligatory. In thetic expressions there is general uncertainty as to whether the sign of recognition (<u>es ist</u>, <u>there is</u>, a verb denoting movement) has to agree with the NP or not. In another bible version, the Vulgata, we find the plural <u>apparuerunt</u> instead of <u>apparuit</u> in (6b) (see Wehr l.c.). Similarly, in English one will occasionally hear <u>There was horses outside</u> instead of the 'more correct' <u>There were horses outside</u>.

- Subject accentuation in English (and German) is particularly instructive in that it involves material that allows either for a thetic or a categorical expression. Furthermore, it shows that the thetic/categorical opposition cannot be reduced to the opposition between given and new. All examples in (7) contain referential expressions which show nearly all the properties of 'good' English subjects (initial position, governing agreement) except for the fact that they receive the only main stress, which normally is given to (some part of) the

predicate or at least to both subject and predicate:[17]

7a) My SISter died.
 b) The BUTter melted.

There are two readings to examples like these, one being
that the subject receives contrastive stress (My SISter –
not my father, my uncle or Billy – died). This is of no
interest here. The other reading, which Fuchs (1980:449)
calls the "integrative" reading, is used to present the
whole syntagm as "one 'globally new' unit". Both, "my
sister" and the fact that a death occurred, are new to a
given speech event; there is no contrastive context. This
reading is to be compared to the case where both subject
and predicate are accented (cf. Chafe l.c.):

8a) My SISter is DYing .
 b) The BUTter MELted.

Here again, both subject and predicate are to be
interpreted as new. Consequently, newness cannot be made
the explanatory parameter for spelling out the different
stress patterns in (7) and (8). Chafe, who in the article
quoted is exclusively concerned with _given_ and _new_, notes
that in (7) there is "a conceptual unity" between the noun
and the verb which is not present in (8). Neither author
refers to the thetic/categorical opposition, but obviously
they share the intuition that the subject accentuation is
used here to override the structural bi-partition of the
expression and to present the statement as a unitary
whole.
In Romance languages the same end is achieved by inversion
(VS instead of SV):

9) E volato via il canarino. (quoted from Wehr 1984:54)

or, very prominently in French, with a _split_ _structure_
(see Sasse in prep.):

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17. The examples are taken from Chafe (1974:115). See Sasse (in prep.) for
comments on Chafe's interpretation of these examples, and Fuchs (1980) for more
on subject accented constructions in English and German.

10) Maman, il y a ma poupée qui s'est cassée!
                    (quoted from Wehr l.c.59)

   Most of these and similar phenomena have been discussed in
   terms of "all-new-utterances" or "neutral description"
   (cf. Kuno 1972). These approaches are valuable, because
   they provide for a characterization of the contexts in
   which thetic constructions are used.[18] But they are
   insufficient for two reasons. First, not all phenomena can
   be exclusively referred to information structure.[19]
   More important is their failure to explain why there are
   mechanisms at work in all of these constructions which
   are geared at removing or avoiding a bipartite clause
   structure. Newness all by itself cannot provide for such
   an explanation. This is trivially obvious in cases where
   the new information appears in the predicate.

The morphosyntactic evidence for the distinction between
thetic and categorical — which is only touched on here and
fully discussed in the quoted works — seems to me quite
convincing. That it is an extremely useful concept is
evident, since it allows for non bipartite predicative
structures. What this distinction means theoretically,
however, is as yet unclear. Do thetic and categorical refer
to two different predicative acts or are they two forms of
the same act? What is their common denominator, if there is
one? What is the interrelation between them? Before trying
to answer these questions, I will briefly review some
predicative structures outside IE in order to make sure that
we are not being trapped here in some ethnocentric
fallacies.

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18. See (once more) Wehr 1984 for a thorough classification of patterns in
Romance. Note that she does not employ the thetic/categorical distinction, since
she is primarily concerned with the discourse factors involved.
19. See the brief discussion of subject accentuation above and Sasse (in prep.)).

3. Predicative structures in Tagalog and Basque

In Tagalog[20] there are (at least) five different predicative structures. In order to avoid the notoriously controversial term "subject" in a language which it is not appropriate for,[21] I will use the more neutral term predication-base (PB) for the phrase the predicate is about. Many Tagalog sentences involve such a predication-base and thus exhibit a clearly bipartite structure:

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11) In-i-abot        ng manggagamot  sa sundalo   ang itlog.
    R/P-MU-hand to    RA physician    LO soldier    RP  egg

         predicate                                   PB
```

"The physician handed the egg to the soldier."
(More literally: "Handed by the physician to the soldier
                        (is) the egg.")

The predicate in (11) consists of iniabot ng manggagamot sa sundalo, the predication-base is ang itlog. That there is a predicative nexus between these two is evinced by two facts: First, the affix i- in iniabot, though not an agreement affix, still denotes the role ang itlog plays in the event denoted by abot (MOVED UNDERGOER). Only the role of the PB is explicitly coded, the role of the other participants only implicitly (i.e. the role assigned to the PB is excluded for all other participants). Second, in a Tagalog clause all other participants except for the the one functioning as PB are either clearly marked as attributes (by the linker or by

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20. The following remarks are primarily based on my own work on Tagalog. The analysis is not given in full detail, only the relevant morphemic boundaries are indicated. It basically follows Bloomfield 1917 and Lopez 1937/77. Important points are dealt with from a modern point of view in Naylor 1980 and Lemaréchal 1982.
The examples are all drawn from texts: (11) is from Bloomfield (1917:30 line 13); (12), (17), and (18) are from letters which my informants kindly allowed me to make use of; (13) is from a tape-recorded story; (14-16) are from the Tagalog magazine Liwayway, the 29 Oct 1984 issue, pp 46, 13, and 52 respectively.
The following abbreviations are used in the text: A = ACTOR; AF = ANG-FORM; DEM = DEMONSTRATIVE; EX = EXCLUSIVE; I = IMPERFECTIVE; IR =IRREALIS; LK = LINKER; LO = LOCATIVE; MU = MOVED UNDERGOER; NEGEX = NEGATIVE EXISTENTIAL; NF = NG-FORM; P = PERFECTIVE; p = plural; PLU = PLURAL (particle); PN = PERSONAL NOUN (marker); R = REALIS; RA = REFERENTIAL ATTRIBUTE; RP = REFERENTIAL PHRASE; s = singular; SF = SA-FORM; SG = SINGULAR; U = UNDERGOER
21. See Schachter 1976, 1977; Drossard 1984. For "subject" in general see Li (ed.) 1976 and Sasse 1982.

ng) or as (local) adjuncts (sa). Strictly speaking, the
predicative relation is manifested in the simple
juxtaposition of predicate and PB (in that order). Probably
this is accompanied by a specific intonational contour, but
I am not yet prepared to make statements about the role of
intonation in Tagalog sentence structure. Simple
juxtaposition is sufficient, because all other relations
(including an inverted order of PB and predicate) are
explicitly indicated by grammatical particles. Whether there
is a PB in a given clause or not is easily determined,
because then there has to be at least one ang-form in the
clause.[22]

Apart from this very common categorical form, there are
three thetic forms and one further categorical form, which
is closely related to one of the thetic predications. The
thetic forms are clearly recognizable, because they exclude
a PB.

   Example (12) illustrates a meteorological expression,
consisting of a predicate and (optionally) local adjuncts.
There is no PB:

12) Masyado-ng mainit na   rito   sa amin.
    very-LK   hot   already DEM/SF LO 1pEX/SF
    "It's already very hot here in our place."

Presentative constructions, another instance of thetic
predications, are marked with may 'there is' (or its
negation wala). Note that may is used almost exclusively for
that purpose (the exception will be noted directly). may
clearly is not a predicate, but a simple sign of
recognition:

13) May   mga   magsasaka ...
    EXIST PLU farmer
    "There were farmers ..."

The same pattern is used in cases where something is being
said about a referent who is unknown:

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22. Note that ang in itself does not signal the PB, since the predicate can also
be an ang-phrase (resulting in a so-called ang-ang-clause). ang signals
referentiality exclusively.

14) May   nag-lagay   ng bomba sa kotse nito.
    EXIST R/P:A-put- RA bomb LO car   DEM/NF
    "Somebody had put a bomb in his car."

Constructions with <u>may</u> do not necessarily exclude a PB. If
one is added,   the relation between the PB and the predicate
introduced by <u>may</u> is one of possession (in a broad sense):

15) May   sakit   si Enya.
    EXIST sickness   PN/AF
    "Enya was sick (had sickness)."

This includes 'possession of an act':

16) May   sasabih-in ako   sa iyo.
    EXIST IR:I:say-U 1s/AF LO 2s/SF
    "I have something to say to you."

The PB in (16) is <u>ako</u>, the <u>ang</u>-form of the 1.person personal
pronoun. Note that, formally speaking, in examples like (15)
and (16),   a thetic predication forms part of a categorical
one. However,   contrary to   the   suggestion   made   by Marty
(cf.p12),   it does   not   form   the   'subject' part,   but the
predicate part.
Finally there   is   a   thetic   predication   that   is   used to
express a complex state of affairs as a   unitary whole in a
non-presentative fashion. That means that a state of affairs
is introduced as a   coherent whole   into a   discourse about
another topic. There is   no   participant   in   this state of
affairs that pertains prominently to the   topic currently
relevant within the given discourse. The predicate is put in
a special form   (<u>ka-</u> + reduplication   + <u>lang</u> 'only'),   which
does not signal a role of any of the participants (i.e. it
is not 'focussed'). The   participants   themselves   are all
marked as attributes or adjuncts. There is no PB:

17) ... wala   kami-ng panggastos   para sa darating
        NEGEX 1pEX-LK means to spend   for LO IR:I:come

    na araw. <u>Ka-gagaling   lang</u> ni Keith   ng sakit
    LK day.   ?-recover   only PN/NF   RA sickness

    niya na Amoebiosis.
    3sNF LK

    "We did not have any means to spend for the next day.
    Keith had only now recovered from his Amoebiosis."

18) .., si Marcos pa   rin. <u>Ka-tatapos lang</u> ng
     PN/AF   still also   ?-finish   only RA

    mahaba-ng welga   ng mga   guro.
    long-LK   strike RA PLU   teacher

   "..., it's still Marcos (in power). Just now a long
     strike of the teachers came to an end."

In (17) Keith's recovering from an Amoebiosis is already known to the reader from a preceding part of the letter which dealt with the health of family members. The point to be made here is the fact that his recovery quite substantially affected the family's financial situation. Neither Keith nor the Amoebiosis is "that talked about". Rather the whole state of affairs functions as a unitary piece of information within the larger topic of family finances. Formally this unity is expressed by the fact that both participants, Keith and the Amoebiosis, are coded as attributes (<u>ng</u>-phrases). (18) is from a brief review of the current Philippine situation. Again, the teachers' strike is not "that talked about", the end of the strike is included as a unitary piece to the overall picture drawn.[23]

From a predicational point of view, Tagalog is thus not all too different from an Indo-European language. The thetic/categorical distinction is formally even more evident than in any of the modern IE languages, since the presence or absence of a PB can always be unambiguously asserted.

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23. In Schachter/Otanes (1972:371ff), as in most grammars, the form <u>ka-</u> + reduplication is called "recent perfective aspect". I do not believe that this is a correct analysis, since this form is completely different from the other four modal-aspectual forms, all of which are closely interrelated with 'focus'-formation. Thus treating it as a purely aspectual form does not explain why there is no 'focus' and why it is not compatible with a PB. The statement is, however, correct that in this construction the state of affairs is conceived of having occurred very recently. But this restriction in my opinion does not invalidate the claim that this is a thetic form of predication as evinced by its morphosyntactic structure.

The situation in Basque is totally different.[24] Most importantly, it is generally difficult, if not impossible, to determine a predication-base at all (cf. Brettschneider 1979:377ff, Bossong 1984). The predicate, consisting mostly of an infinite form of the verb and an auxiliary, agrees with up to three participants none of which can be clearly pointed out as "that talked about". Even the segmentally unmarked NP, the absolutive, cannot lay claim to this position, since there is no further structural correlate that would show that this NP is in some sense more prominent than any other. What is important in this respect is that topic-comment structure does not play a prominent role in this language, because NPs that can be derived from context (potential topics) normally are not further fully specified, but simply taken up by the agreement markers.[25] The discourse-pragmatically most prominent concept is that of focus, i.e. that constituent that bears the information peak (see Lafitte 1962:47, Brettschneider l.c.). The predicates are strictly classified as being intransitive, transitive or bi-transitive, the possibilities for diathesis being marginal. (19), (20) and (21) exemplify standard transitive, intransitive and bi-transitive constructions, respectively:

19) haurr-e-k   liburu-a   irakurri
    child-DEF:PL-ERG book-DEF:SG:ABS read

    d-u-0-te.
    abs3SG-AUX-erg3SG-PL
    "The children read the book."

---

24. The following exposition is based on a talk given by Thomas Müller-Bardey. Gunter Brettschneider made valuable suggestions, checked the material and discussed it with me several times. I hope I was able to preserve most of this kind and highly competent input.
The examples are taken from Rebuschi 1983:546f (exples 19/20/25/26), Lafitte 1962:190 (22) and 416 (24), (21) is from Brettschneider 1979:373 (with ogia instead of pelota)) and (23) is the beginning of a story (Atxular Apezarena J.Amorena/ M.Ariztia).
The following abbreviations are used in the glosses: ABS= ABSOLUTIVE; AFF = AFFIRMATIVE; AUX = AUXILIARY; DAT = DATIVE; DEF = DEFINITE; ERG = ERGATIVE; PL = PLURAL; SG = SINGULAR; TRANSDEF = TRANSDEFINITE (neither definite nor indefinite)
25. Cf. Brettschneider 1979:375. This is not to say that there is no possibility at all for topicalization in Basque. There is, but it involves a left dislocation that takes the NP out of the clause; case-marking is lost (cf. Brettschneider 1981:227ff).

20) haurr-ak   jiin   d-ira.
    child-DEF:PL:ABS come   abs3PL-AUX
    "The children have come."

21) ni-k gizon-a-ri   ogi-a
    I-ERG man-DEF:SG-DAT bread-DEF:SG:ABS

    d-a-kar-kio-t.
    abs3SG-T-bring-dat3SG-erg1SG
    "I bring the man bread."

The standard example for a thetic predication - "it rains" - looks like a standard transitive (sic) predication, the only difference being that it does not allow for a fully specified ergative NP (since that NP would have to specify who in fact "rains"):

22) uri-a   egiten d-u-0.
    rain-DEF:SG:ABS   make   abs3SG-AUX-erg3SG

The other standard example - presentative constructions - is only slightly different from a standard intransitive construction:

23) Ba-zien   hiru apez ...
    AFF-abs3PL:AUX:PAST three priest:TRANSDEF:ABS
    "There were three priests ..."

That _hiru apez_ follows the auxiliary is the only hint at the thetic character of this predication, but it is a hint only and cannot be compared to subject-inversion in Romance, since word order in Basque is not fixed (with the exception of the position of the focus). Consequently this order cannot be taken as a structural manifestion of the thetic character. The occurrence of _ba-_, called "l'adverbe affirmatif" by Lafitte (1962:411), is due to this order, since the auxiliary cannot occur in clause initial position. It is not restricted to presentative constructions (cf. _badoa_ "il s'en va" (Lafitte 1962:161)).

Summing up the discussion so far, there seems to be no distinction between thetic and categorical in Basque. Since there is no bi-partition even in a standard transitive construction, it seems plausible to claim that predication in Basque generally takes a thetic form. This would explain why standard examples for thetic predications do not receive a markedly different form in Basque. This claim is further supported by the fact that there is a special categorical

form of predication which is generally used in predications
involving non-verbal predicates:

```
24) ogi-a            on-a           d-a.
    bread-DEF:ABS good-DEF:ABS abs3SG-AUX
    "The bread is good."

    ogi-ak           on-ak          d-ira.
    bread-DEF:PL:ABS good-DEF:PL:ABS abs3PL-AUX
    "The breads are good."
```

Here not only the auxiliary, but also the main part of the
predicate agrees with the NP in the absolutive. This
additional agreement correlates with the intuition that here
the bread definitely is "that talked about". This
construction is not limited to non-verbal predicates:[26]

```
25) liburu-a          haurr-e-K            irakurri-a
    book-DEF:SG:ABS child-DEF:PLU-ERG read-DEF:SG:ABS

    d-a.
    abs3SG-AUX
    "The book has been read by the children."
    (more adequate is a German translation with an agreeing
     participle:
    "Das Buch ist ein von den Kindern gelesenes."
```

```
26) haurr-ak           jiin-ak              d-ira.
    child-DEF:PL:ABS come-DEF:PL:ABS abs3PL-AUX
    "The childeren have come."
    ("Die Kinder sind angekommene.")
```

Again the main part of the verb agrees with the NP in the
absolutive. In (25) the auxiliary also changes from a
transitive to an intransitive one (cf. 19). Thus the
absolutive NP is clearly set apart from other NPs in these
constructions and it seems legitimate to call it the
predication-base. A passive translation has been chosen to
reflect this status of liburua, but note that this
construction is not a passive like an English passive.
Notionally these constructions connote a resultative meaning
which is absent from the parallel examples in (19) and (20).
This resultative meaning ties neatly in with the categorical
form of these constructions, because the result of an action
(or process) is normally evinced by one of the participants

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26. These constructions have often been called passive (cf. Lafitte 1962:342ff).
But note that case-marking does not change. See Rebuschi (1984) for a detailed
account of the phenomena involved.

involved in the action. It is thus highly suggestive to make this participant the starting point in stating the result.

In discussing Basque I have implicitly enlarged the concept of thetic predication. Up to now thetic predications have always been treated as special forms to be defined in setting them off from the 'normal' categorical form. They were conceived of as presenting a state of affairs as a unitary whole, both notionally and structurally. This unity was remarkable, given that the linguistic expression of a state of affairs 'normally' imposes a bipartite structure on it. If my presentation of Basque is correct, the relation between thetic and categorical can be turned around, the thetic form then being the unmarked case and the categorical the marked one. Uniformity is no longer the characteristic feature of theticness, rather bi-partition is the specific feature of the categorical form. The thetic form is then characterized as simply stating a state of affairs without imposing bi-partition on it. The substantial claim inherent in this suggestion is that categorical and thetic are theoretically two equally plausible expression forms for predicating a state of affairs, the distribution of markedness within this opposition being variable between languages. With that we are back to the question concerning the interrelation between thetic and categorical (see above p15).

4. The predicative act

That there is such an interrelation is strongly suggested by the terms "simple" and "double judgment". As stated in the quote from Kuroda above (p12), the bipartite predication is conceived of as involving two parts, the first (subject) part of which is likened to a thetic predication (act of simple recognition). The second part is not simply another thetic predication, because then there would not be a relation of aboutness between the two parts. A predication like <u>This president is a cowboy</u> is not a simple concatenation of "There is this president" and "There is being a cowboy". Bringing this idea to its logical

conclusion, we arrive back at the traditional
characterization: the predicative act consists of
recognizing something and in saying something about what is
recognized. What is new is the claim that sometimes the
second part may be missing, the act thus consisting only of
a simple recognition. It is obvious that there is something
wrong with such a conception, since a subject expression
like "this president" is not a predication, while the thetic
expression "there is this president" is a predication. Thus
it is not correct to say that the first part of a
categorical predication is identical with a thetic
predication. There are probably similarities between the
two, but the latter involves something more. Marty himself
conceived of this "something more", which also is the common
denominator between thetic and categorical, in the following
way:

> "Bekanntlich war es eine weitverbreitete, zeitweilig
> fast alleinherrschende Meinung, daß in der Verbindung
> von einem Subjekt und Prädikat oder, wie man statt dessen
> synonym sagen zu können meinte, einer Subjekts- und
> Prädikatsvorstellung die ganze Eigentümlichkeit des
> Urteilsphänomens bestehe. Dies ist ein Irrtum ... . Man
> findet, es gehöre dazu außerdem noch etwas, was man als
> Bewußtsein der Objektivität jener subjektiven
> Vorstellungsverknüpfung, als Gültigkeitsbewußtsein,
> Glauben etc. bezeichnet, und manche haben unumwunden
> zugegeben, daß dieser hinzukommende Vorgang in keiner
> Weise in Vorstellungen auflösbar ist. ... ein Phänomen
> sui generis ... vorliegt, <das> sich auf gar nichts
> anderes zurückführen und nur durch Hinweis auf die
> Anschauung klar machen läßt." (Marty 1887/1918:311f)

I agree with Marty that this "Bewußtsein der Objektivität"
cannot be reduced to anything else (i.e. it is a phenomenon
sui generis), but in order to make it a useful concept, it
has to be given a more operational shape. Humboldt, who
attributes the above-mentioned "Bewußtsein" to the verb,
gives the following characterization:

> "Das Verbum (...) unterscheidet sich ... dadurch, dass
> ihm allein der Act des synthetischen Setzens als
> grammatische Funktion beigegeben ist. Es ist ebenso, als
> das declinirte Nomen, in der Verschmelzung seiner
> Elemente mit dem Stammwort durch einen solchen Act
> entstanden, es hat aber auch diese Form erhalten, um die
> Obliegenheit und das Vermögen zu besitzen, diesen Act in
> Absicht des Satzes wieder selbst auszuüben. ... Durch
> einen und denselben synthetischen Act knüpft es durch das

Seyn das Praedicat mit dem Subjecte zusammen, allein so,
dass das Seyn, welches mit einem energischen Praedicate
in ein Handeln übergeht, dem Subjecte selbst beigelegt,
also das bloss als verknüpfbar Gedachte zum Zustande oder
Vorgange in der Wirklichkeit wird. Man denkt nicht bloss
den einschlagenden Blitz, sondern der Blitz ist es
selbst, der herniederfährt; ..." (1836/1963:608f)[27]

This passage vividly describes the intuition that to
predicate is to make a claim to reality, to make the
linguistically expressed state of affairs - in some sense -
real. The predicative act is conceived of as a presentation
("Setzung"), i.e. a state of affairs is linguistically set
forth accompanied by a 'vocal gesture' like "here it is" or
"this way it is". This operational aspect of predication is
often called assertion (cf. FN6):

"Une assertion finie, du fait même qu'elle est assertion,
implique référence de l'énoncé à un ordre different, qui
est l'ordre de la réalité. A la relation grammaticale qui
unit les membres de l'énoncé s'ajoute implicitement un
"cela est!" qui relie l'agencement linguistique au
système de la réalité." (Benveniste 1950/66:154)

Thus one could say that the common denominator of both kinds
of predications (thetic and categorical) is that they are
assertions. But then, what does it mean to assert? Is there
any way to test whether a given structure is assertive?

Lohmann/Bröcker, in an attempt at further clarifying
this intuition, state that making a predication means to
make a - currently relevant - decision:

"Der Satz meint als solcher eine aktuelle,
'ausdrückliche' Entscheidung in bezug auf das Genannte -
dadurch grenzt er sich von der zusammengesetzten bloßen
Nennung ab (der Flieger ist abgestürzt : der abgestürzte
Flieger) ... " (Lohmann/Bröcker 1940:357)

"... die letzte und oberste Prädikation des Satzes als
solchen aber besteht in dem Setzungsakte, d.h. in dem
Vollzug der Entscheidung über die Geltung des im Satz
Genannten in bezug auf das so Benannte. ... Das gilt für
alle Formen des Satzes, nicht bloß für das Urteil,
sondern auch für den Befehl und selbst für die Frage, in
ihr entscheidet der Sprechende darüber, was für ihn im
Satze oder am Satze noch der Ergänzung bedarf. Die Frage

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27. Note that the phrasing of this passage is strongly influenced by the
traditional conception that predicating something always involves some form of
"being" ("das Seyn") on top of the action or process denoted by the verb.

> ist der Ausdruck einer <u>unvollständigen</u> Entscheidung, sie
> läßt noch eine der durch den Satz zu entscheidenden
> Alternativen offen, trifft aber, indem sie dieses
> ausdrücklich so entscheidet, selber eine Entscheidung und
> ist damit ein Satz. Im Verhältnis von Frage und <u>Antwort</u>
> zeigt sich der sprachliche Entscheidungsakt in seiner
> reinsten Form, wird die letzte Stufe der Entscheidung
> bloßgelegt — ähnlich wie im Verhältnis von Behauptung und
> Verneinung die reine <u>Prädikation</u> als solche hervortritt."
> (l.c.356)

Analytic philosophy has come up with approximately the same
idea:

> "To predicate an expression ′P′ of an object R is to
> raise the question of truth of the predicate expression
> of the object referred to." (Searle 1969:124)

Rather than putting it in logical terms of truth and falsity
I prefer the more pragmatic phrasing that <u>making a
predication crucially involves challengeability</u>; to make a
predication is to make a challengeable decision. Such
phrasing allows for the following "test" to determine
whether a given structure is (morphosyntactically)
predicative or not: A predicative structure always allows
for — or even demands — a yes-or-no reaction. Confronted
with "this president" it doesn't make sense to say yes or no
(instead you would say "well, what about him"); only a
predication like "This president is a cowboy" confronts the
hearer with the alternative between yes or no.
Challengeability provides a criterion in two controversial
areas:
First, it applies equally well to categorical and thetic
predications. Thetic predications like <u>It's raining</u> or <u>There
was a confused tramping of horses outside</u> allow for a
reaction with yes or no. Challengeability thus is a common
property of both kinds of predicative structures. It is the
common denominator, the intuitive basis for calling both of
them predications.
Second, it is a criterion in distinguishing attribution and
predication. In an expression like <u>his yellow trousers</u> the
decision to characterize the trousers as yellow can not be
challenged. This possibility only arises in a predicative
phrasing (<u>his trousers are yellow</u>). The state of affairs
expressed, however, is essentially the same in both

expressions. Also the traditional definition of "saying something about something" applies to both kinds of structures. In both cases what is said about the trousers is that they are yellow. The difference between attribution and predication pertains to <u>how</u> something is said about something:

> "Die <u>als-Struktur ist der Prädikation</u> (dem etwas über etwas, oder von etwas sagen; d.h. 'etwas als etwas erscheinen lassen', ...) <u>und der Supposition gemeinsam</u>. In der aktuellen Supposition kehrt sich aber das 'als-Verhältnis' der Prädikation insofern um, als die 'Suppositon' die aktuelle Entscheidung der 'Prädikation' (....) als bereits vollzogen voraussetzt, ..." (Lohmann 1948:69)

So far this is only a hypothesis. The following discussion will have to show whether challengeability can stand as the common denominator of all predicative structures.

> There are quite a lot of empirical problems connected with the "test" of challengeability, and so far I have not been able to come up with a completely satisfactory solution for most of them. The following brief remarks are to be taken as preliminary.
> Immediately the problem comes to mind: What about questions and imperatives? This presupposes that one holds that questions and imperatives are predications. Lohmann/Bröcker as well as Searle claim that they are, and that their characterization of (morphosyntactic) predication holds for questions and imperatives as well. Traditional as well as modern logic mostly excludes them from consideration. It is not yet clear to me which stand I should take on this issue. In accordance with the overall approach taken in this paper, the guiding question is: What is the linguistic evidence?[28]
> As far as questions are concerned, their morphosyntactic form is in many if not most languages nearly identical to declaratives. This is especially obvious in cases where yes/no questions simply receive a different intonation. Thus the structural evidence strongly suggests that questions have to be included among the predicative structures. But are they challengeable? Yes/no questions are, I think, unproblematic. They explicitly offer the choice between yes and no.

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28. Excluded from consideration are all structures that are formally declarative, but carry different illocutionary forces. Since they are assertions in form, they are predications and the fact that they are used to command, to question, to promise etc. has to be dealt with on another level.

In the sequence of question ("Is this president a cowboy?") and answer ("Yes") the decision involved in every predication is clearly spelled out. In the question itself the decision is momentarily suspended, as Lohmann/Bröcker put it. Thus yes/no questions involve the same kind of challengeability as declaratives, although in a somewhat different manner. To claim that both declaratives and questions are predications and thus involve challengeability does not mean that they are identical. Of course there is a difference between a question and a declarative. But challengeability or "raising the question of truth" is common to both. Wh-questions seem to me even closer to declaratives with respect to challengeability. In "Who is a cowboy?" the speaker has made the challengeable decision that someone is a cowboy. If this decision were wrong, the answer would have to be: "No, we didn't say about anybody that he was a cowboy". A wh-question is, as Lohmann/Bröcker put it, an incomplete decision; the speaker is lacking a piece of information that is needed to make it complete. But it still is a (challengeable) decision. Thus questions are, I think, predications and are captured by the characterizations and the test given above.

Imperatives, on the other hand, are somewhat more problematic. Admittedly, on the surface the test works here as well. Confronted with "Shut up!" or "Stop it!" the hearer has the possibility of saying yes or no. But this yes (or no) does not refer to the truth or falsity of a linguistic expression, rather it refers to the action to be taken by the hearer. Thus the reaction of a hearer to an imperative normally consists in action or non-action, rather than in saying yes or no.[29] The challengeability involved in imperatives is of a different kind compared to that in questions and declaratives. This difference is manifested on the expression side as well. Imperatives usually involve quite a distinct morphosyntactic structure (for declaratives or questions functioning as imperatives see FN28):

> "Die Sprachwissenschaft hat eingesehen, dass der Vokativ sich nicht auf derselben Ebene befindet, wie die übrigen Kasus, und dass die vokativische Anrede ausserhalb des grammatischen Satzes steht; ebenso ist der echte _Imperativ_ von den übrigen verbalen

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29. Searle (1969:124 FN1) also remarks that his definition of predication is especially awkward "for imperatives because the aim of imperatives is to get the world to conform to words, whereas 'true', when asserted of illocutions, attributes success in getting words to conform to the world." Cf. also Tugendhat (1976:239ff, 506ff) for a philosophical critique of Searle's handling of this question.

> Kategorien abzusondern, da er durch dieselbe Funktion wie der Vokativ gekennzeichnet ist. Der Imperativ darf nicht syntaktisch als prädikative Form behandelt werden: die imperativen Sätze sind, gleich der Anrede, volle und zugleich unzerlegbare 'vokativische einteilige Sätze', und auch ihre Intonation ist ähnlich. Das Personalpronomen beim Imp. (...) ist seiner Funktion nach eher Anrede als Subjekt. Der Imp. zeichnet sich innerhalb des russischen Verbalsystems deutlich nicht nur syntaktisch, sondern auch morphologisch und sogar phonologisch aus." (Jakobson 1932:80)

Jakobson then outlines the special characteristics of Russian imperatives, which will not be repeated here. He explains them by referring them to different functions of language. Imperatives do not belong to the "Darstellungsfunktion", but to the "Auslösungsfunktion".[30] Despite this difference, imperatives, of course, are related in some way to assertions and thus to predication, since nearly all assertions can be transformed into an imperative. But I do not know yet how to conceive of this interrelation, and thus I would rather exclude them from further consideration.

Subordinate clauses constitute another major problematic area. Most kinds of subordinate clauses (temporal, conditional etc.) have an illocutionary force of their own and are challengeable. The problem here consists in pointing out the difference in manner between the challengeability involved here and that involved in main clauses.

More problematic are complement-clauses which sometimes do not carry any illocutionary force of their own, e.g. <u>He thought that she came</u> or <u>I suspect that he sells used napkins</u>. The complement-clause, though practically identical in form with the corresponding main clause, can not be challenged. But complement clauses are not necessarily unchallengeable. To <u>She remembered that he ate it</u> one could respond: "No, that's impossible. He didn't eat it." Challengeability here depends on the meaning of the main verb. If it is a non-presuppositional epistemic verb, the complement clause will be not challengeable. The function of the epistemic verb is to delimit or suspend the challengeability of the predication contained in the complement clause. One could thus claim that the challengeability of the complement-clause has in some sense been exported to the main clause. This is especially obvious in the case

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30. For the different functions of language cf. Bühler (1934:28ff) and Jakobson (1965/71; 1968/71).

of a logical predicate like _true_. The function of _true_ in _It is true_ _that he sells used napkins_ is merely to make explicit the challengeability of the state of affairs expressed in the complement clause. I will return to this issue below. In order to pursue the general problem of challengeability in complement-clauses I think it necessary to make an empirical survey of which languages allow for real complement-_clauses_. I suspect that there will not be very many outside the IE family.

Finally I only want to mention probably the most intricate problem, i.e. relative clauses: They are clearly predicative in form, but attributive in function and thus not challengeable.

The conception of the predicative act given above - i.e. making a challengeable decision - is rather abstract. Besides the many empirical problems just listed, one fundamental conceptional question remains open: The decision to do _what_ is challengeable? The first answer that comes to mind is: It is the decision to _say something about_ _something_, or, in Searle's phrasing, to raise "the question of truth of the _predicate expression of the object referred_ _to_" (see also the third part of Strawson's definition quoted on p5). The notion of challengeability was introduced to overcome the problems involved in the traditional bipartite conception of predication and now bi-partition seems back again: The challengeable decision provided for in a predication is the decision to apply a certain linguistic expression to a given state of affairs or an entity. But note that this bi-partition is different from the bi-partition involved in the traditional definition of predication. The traditional definition pertains to the level of linguistic structure (involving the structural concepts subject and predicate). Here, however, we are concerned with a distinction between linguistic expression and an extralinguistic entity or state of affairs within the universe of discourse.[31] This difference is most obvious in thetic predications like _There was a confused tramping of_ _horses outside_. No distinction between subject and predicate can be established here. There is, however, a distinction to

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31. I use "universe of discourse" rather than "reality" so as to avoid any unredeemed ontological commitments.

be made between the state of affairs to be expressed and its linguistic expression. And it is this difference that is a necessary prerequisite for challengeability. But it also is a rather trivial and unintresting one insofar as it can be applied to any linguistic utterance (in this president there is also a linguistic expression and an entity referred to!). The challengeability criterial for a predication has to involve more than just this distinction. To predicate does not simply mean to make the decision to apply a certain linguistic expression to a certain state of affairs; rather, it means to present such a decision as challengeable. The essential question therefore is: What are the operations necessary for presenting such a decision as challengeable? The answer has been given its most definite phrasing in modern logic and analytic philosophy, which, following Frege (see above p7), claim that the basic operations are the operations of reference and characterization (cf. Tugendhat 1976). One has to refer to something and to characterize it in order to raise the question of truth. The task to be fulfilled by a linguistic predicative expression thus is twofold: On the one hand, to refer to a point in the universe of discourse and on the other hand, to characterize it. As will be seen below, the crucial point here is the mechanics of the interrelation between these two operations. But to begin with I will briefly comment on these two operations all by themselves. Note that the main concern still is to reconstruct the predicative act, i.e. we are still concerned with the operational aspect. There are no claims yet pertaining to linguistic structure.

"Characterization" is, strictly speaking, only a paraphrase of 'applying a predicate to':

> "Da ich meine, daß es sich hier um eine Grundgegebenheit unseres Verstehens handelt, sofern wir eben Prädikate zu gebrauchen verstehen, kann ich dieses Wort nicht definieren, nur erläutern. Ein Prädikat erfüllt seine Charakterisierungsfunktion, indem es als Kriterium fungiert. Ein Kriterium (von griech. krinein, trennen) ist etwas, was zum Unterscheiden dient. Indem wir ein Prädikat auf einige Gegenstände anwenden und auf andere nicht, klassifizieren wir damit alle Gegenstände, auf die wir es anwenden, und unterscheiden sie damit zugleich von denjenigen, auf die wir es nicht anwenden ... Die

Charakterisierungsfunktion besteht im Klassifizieren-und-
Unterscheiden." (Tugendhat 1976:182f) [32]

The function of characterization is not to be confused with
the grammatical predicate, although the grammatical
predicate often serves this function (this will be further
developed in the following section). In a thetic predication
like there was a confused tramping of horses outside, for
example, a confused tramping of horses, serves the
characterizing function. I.e. this linguistic expression
linguistically characterizes a state of affairs, it does not
refer to it as it does in A confused tramping of horses woke
him up late at night.

"Reference" here is to be taken in a different sense
than it usually is. As it was stated above, challengeability
presupposes that a certain point in the universe of
discourse (be it a state of affairs or an entity) has to be
picked out or identified so that the question may arise
whether or not a certain linguistic expression adequately
characterizes it. Within the predicative act, "reference" is
not limited to the operation of referring to an entity, but
it comprises all those elements in a predication that are
used to identify spatio-temporally the point in the universe
of discourse to which a given predication pertains. It thus
includes, for example, tense and mode. This feature has
occasionally been identified as the criterial feature of
predication:

> "... by the 'predication' is meant that quality or aspect
> of the utterance which makes a language expression an
> utterance (i.e. an elementary unit of communication).
> Roughly speaking, predication is associated with those
> aspects of the utterance that relate it, potentially, to
> an 'ego, hic et nunc' situation; in this connection
> temporal, modal and personal categories will be
> mentioned." (Daneš 1977:105)

This conception makes prominent use of the term
actualization (cf. Daneš 1977:107), claiming that a
predication involves an actualization of the content
expressed. Note, however, that "actualization" is an

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32. See also Strawson 1974:13ff

extremely broad concept. Bally, who introduced this term into linguistics (cf. 1922, 1950:77ff), says:

"Actualiser un concept, c'est l'identifier à une représentation réele du sujet parlant. En effet, un concept est en lui-même une pure création de l'esprit, il est virtuel; il exprime l'idée d'un genre (chose, procès ou qualité). Or, la réalité ignore les genres: elle n'offre que des entités individuelles." (1950:77)

"L'actualisation des concepts donc consiste à les faire passer dans la réalité;.." (78)

"... l'actualisation a pour fonction de faire passer la langue dans la parole ..." (82)

"Actualization" here includes all factors specific to utterances (l'énoncé), i.e. to making use of the systematic possibilities of a language in order to express a specific idea.

It seems obvious to me, however, that predication cannot be reduced to actualization. this president is an actualized expression, referring to a specific president, but not a predication. Rather, predication presupposes actualization, since the actualization factors are responsible for relating an expression to the universe of discourse. This is necessary to allow for challengeability, but an actualized expression is in itself not yet a challengeable expression. Thus the factor of challengeability is an extra factor in morphosyntactic predications and probably its distinctive characteristic (see below).

Are all actualization factors equally relevant to predication? This is, I think, primarily an empirical question. I.e. one has to investigate the factors necessarily involved in predicative structures in the world's languages. Surely the three factors mentioned by Daneš (above), temporal, modal and personal, which are easily identified as Jakobson's shifters (1957/71), are among them. Leech (1981:154ff)[33] further lists definiteness and logical operators (e.g. negation). Both authors, however, base their judgments primarily on IE

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33. Note that my conception of predication encloses his predication, proposition and question.

languages. To my knowledge, a general survey on a
crosslinguistic basis is a task still to be done.
Given that actualization is a rather broad concept and that
it pertains to different operations, I prefer to use the
term _identification_ to refer to the specific quality
actualizing factors contribute to predication; i.e. to
identify the point in the universe of discourse to which a
given characterization pertains.

Summing up this discussion, we can say: A
morphosyntactic predication need not necessarily consist of
subject and predicate, but it necessarily involves
identification and _characterization_. This is also true of
thetic predications. If one says _It's raining_ one refers to
the present weather condition (climatic situation) and
characterizes it as 'raining'. Note that this does not mean
that the 'weather condition is raining'. The claim of such
an expression is that in the situation identified the
predicate "is raining" can truthfully be used.

The procedure up to this point has primarily been
analytic. It was established that three different, at least
partly independent operations are involved in a predicative
act, i.e. _identification, characterization, and presenting a_
challengeable decision. Ascertaining this, the predicative
act is not yet reconstructed, because it is not simply a
summation of these operations. Otherwise it would not be an
act of its own. Rather, as it was phrased, this act _involves_
these operations. Its unity results from a peculiar
synthesis of these operations to be found in this act only.
The task still to be done is to show this particular
interrelation of the three operations. I conceive of this
interrelation as follows:
Presenting a challengeable decision is, as far as I can see,
the distinctive characteristic of morphosyntactic
predication. This operation is thus the central factor of
morphosyntactic predication. The other two operations are
only involved as far as they are presupposed by this central
factor (cf. above p30f): A point in the universe of
discourse has to be identified and a characterization for it
has to be given in such a way that the decision to apply the

given characterization to the given point is challengeable. What is meant by the phrase "in such a way"? It refers to the fact that not just any kind of identification and characterization will do. A special interrelation between identification and characterization is presupposed. Using again this president as an example, this expression refers to a specific person and at the same time characterizes him as a president, but this combination of the two operations does not provide for challengeability. The crucial point here is the phrase "at the same time". In order to allow for challengeability, identification and characterization have to be independent of each other (up to a certain degree). I.e. the identification of a point in the universe of discourse has to be independent of its characterization, otherwise the characterization itself would have to be used in identifying the point, and thus the decision to apply the characterization to it would not be challengeable.[34] A suggestive case in point is a phrase such as his yellow trousers, where yellow characterizes trousers, but this characterization is part of the identification of a point in the universe of discourse and thus the decision to apply "yellow" to "trousers" is not challengeable. This independency requirement belongs purely to the predicative act. How it is reflected in linguistic structure will be turned to in the next section. It will be shown that different kinds of predicative structures result from different ways of fulfilling or neutralizing this requirement.

But independency all by itself is not enough. Consider this president, a cowboy. Identification and characterization are independent of one another, but there is no opportunity to challenge, since both operations are merely juxtaposed and not linked to one another. It is the task of the operation of characterization to provide for such a link, if challengeability is to arise. Characterization has to be explicitly geared to the point in the universe of discourse independently identified.

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34. This fact is well known in modern philosophy under the heading "asymmetry of subject and predicate term" (cf. Strawson 1974:4ff, Tugendhat 1976:284ff, 339f, 487f).

This interplay between the two operations - that they be independent of one another and that characterization be explicitly geared to the point delimited by identification - automatically leads to challengeability. One could thus claim that presenting a challengeable decision is in a certain sense a derived operation in as much as it merely consists in providing for the specific interplay between characterization and identification just outlined. Challengeability arises from a specific tension between the other two operations.

Morphosyntactic predication (as an act) can now be defined as <u>presenting a challengeable (linguistic) characterization of a point in the universe of discourse that has been independently identified</u>. Note that many definitions of predication are quite similar to this, for example the one quoted from Strawson above (p5). Most of them, however, do not adhere consistently to an operational point of view and thus make use of structural notions such as subject and predicate. They simply gloss over several of the issues involved and therefore are easy to be shown wrong by the facts, although the basic intuition was essentially correct.

5. Predicative act and predicative structure

The predicative act being reconstructed, the task remains to mediate between the results achieved in sections 2/3 (data) and section 4 (predicative act). The discussion of the data established that there are at least two different forms a predicative structure can take, i.e. thetic and categorical. Some other possibilities will be shown below. The preceding section established that the common feature of all predicative structures, the defining feature for a predication is challengeability. Thus, the task is to show how the different predicative structures are related to this common denominator and how they are interrelated among themselves. Given that challengeability is the common denominator, the difference between predicative structures has to be due to how they provide for challengeability.

A rather straightforward connection between predicative
act and predicative structure could be conceived of as
follows: There are three operations involved in a
predicative act, i.e. identification, characterization and
presenting the decision to combine these two as
challengeable. Linguistic structure should allow for an
unequivocal and simple expression for these three
operations. Therefore one should expect three expressions in
a predicative structure: an identificational expression, a
characterizing expression and an expression providing for a
link between the two and thus indicating challengeability.
It is obvious that some such reasoning lies at the bottom of
the tripartite conception of predication hinted at above
(p5). To my knowledge, the most rigorous defenders of this
conception are the authors of the Grammaire générale et
raisonnée. From the logical preconception

> "... que le jugement que nous faisons des choses (comme
> quand je dis, la terre est ronde) enferme necessairement
> deux termes, l'un appellé sujet, qui est ce dont on
> affirme, comme, terre; & l'autre appellé attribut, qui
> est ce qu'on affirme, comme ronde: Et de plus la liaison
> entre ces deux termes, qui est proprement l'action de
> nostre esprit qui affirme l'attribut du sujet."
> (1676:94f)

they conclude that it is necessary to invent a marker of
affirmation (= my challengeability) and that this is the
true task of the verb:

> "Ainsi les hommes n'ont pas eu moins de besoin d'inventer
> des mots qui marquassent l'affirmation, qui est la
> principale maniere de nostre pensée, que d'en inventer
> qui marquassent les objets de nostre pensée.
> Et c'est proprement ce que c'est que le verbe, un mot
> dont le principal usage est de signifier l'affirmation:
> c'est à dire de marquer que le discours où ce mot est
> employé, est le discours d'un homme qui ne conçoit pas
> seulement les choses, mais qui en juge & qui les
> affirme." (l.c.95)

Bringing this reasoning to its logical conclusion they hold
that in principle there is only one "true" verb, i.e. the
copula, and that there is no difference between a
periphrastic and a synthetic expression (combining the
characterizing term and the marker of affirmation):

"Selon cela, l'on peut dire que le Verbe de luy-mesme ne devroit point avoir d'autre usage, que de marquer la liaison que nous faison dans nostre esprit des deux termes d'une proposition. Mais il n'y a que le verbe <u>estre</u> qu'on appelle substantif qui soit demeuré dans cette simplicité, &encore l'on peut dire qu'il n'y est proprement demeuré que dans la troisiéme personne du present, <u>est</u>, & en de certaines rencontres. Car comme les hommes se portent naturellement à abreger leurs expressions, ils ont joint presque toûjours à l'affirmation d'autres signification dans un mesme mot. I. Ils y ont joint celle de quelque attribut: de sorte qu'alors deux mots font une proposition: comme quand je dis, <u>Petrus vivit</u>, Pierre vit: parce que le mot de <u>vivit</u> enferme seul l'affirmation, & de plus l'attribut d'estre vivant; & ainsi c'est la mesme chose de dire <u>Pierre vit</u>, que de dire, <u>Pierre est vivant</u>. De là est venuë la grande diversité de verbes dans chaque Langue; au lieu que si on s'estoit contenté de donner au verbe la signification generale de l'affirmation, sans y joindre aucun attribut particulier, on n'auroit eu besoin dans chaque Langue que d'un seul Verbe, qui est celuy qu'on appelle substantif." (1.c.96f)

The analysis of the predicative act contained in these quotes is not all too different from that presented in the preceding section. The relation between act and structure, however, can not be conceived of in such a simple and straightforward manner. This does not mean that there are no structures that come quite close to the "ideal" outlined in the quote. There are such structures, e.g. <u>His trousers are yellow</u> or <u>She was playing piano</u>. Note, however, that <u>are</u> and <u>was</u> are not pure signs of challengeability. They also contain information pertaining to person, tense and mode. In natural language there are no pure markers of challengeability such as Frege's sign of assertion ($\vdash$).[35] I will return to this issue below.

Let us first consider the major problem of such a conception: Since they are structurally not tripartite, the majority of predicative structures do not fit into the picture very well — at least not without retreating to purely logical claims such as the fact that <u>vit</u> and <u>est vivant</u> are "synonymous". It thus seems a fair guess that there is something wrong with the deduction proposed by Arnauld and Lancelot. I think it a mistake to conceive of affirmation or challengeability as a third factor put on top

35. Cf. Frege 1879, Dummett 1973:295ff.

or between identification and characterization. Challengeability arises from a specific interplay among identification and characterization (see above p34f) and, if such an interplay is given, there is no need for an explicit marker of challengeability. On the level of linguistic structure this means that basically an identificational expression and a characterizing expression are enough to signal challengeability, given that they perform their functions independently of one another and that the characterizing expression provides for a link with the identificational expression. The Tagalog example (27) illustrates such a predicative structure:

27) Bago ang bahay niya.
    new RP house 3sNF
    "Her house is/was new."

Characterizing expression (<u>bago</u>) and identificational expression (<u>ang bahay niya</u>) are independent of one another, their function being signalled by position (predicate = clause initial) and <u>ang</u> (referential phrase) respectively. There is nothing like a copula in Tagalog. <u>bago</u> is a root-word, i.e. there is nothing that could be interpreted as "condensed" segmental marker of challengeability. The predicative relation in Tagalog - in structures like (27) - results from the mere juxtaposition of a characterizing term and an identificational term,[36] all other syntactic relations (including attribution and apposition) being segmentally expressed (cf.p16ff). Therefore it is both theoretically and empirically wrong to claim that in every predicative structure there has to be a marker for challengeability.

How do the elements that supposedly signal challengeability explicitly fit into this state of affairs? The copula in IE languages is not a pure marker of challengeability, since it involves temporal, modal and personal categories. These categories serve identificational purposes (cf.p32f). The meaning of the copula, the

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36. Probably a specific intonational contour accompanies this juxtaposition. I was not yet able, however, to delimit the role intonation plays here.

philosophically much discussed "being", however, is, linguistically speaking, challengeability. The IE copula thus combines the expression of challengeability and identification. This combination is not due to chance, because it is the identificational information that provides for the central link necessary for challengeability to arise, i.e. it relates the characterizing material contained in a clause to a point in the universe of discourse. In this sense markers of challengeability can be expected to involve identificational information, or vice versa: linguistic elements for identificational information can be said to be markers of challengeability, since the task performed by both is the same. As will be seen below, this holds only for elements pertaining to a certain identificational strategy. Tagalog here again provides a somewhat exceptional example insofar as there is a marker of challengeability that does not involve identificational information at all. This is the so-called 'existential particle' may and its negation wala (cf. example (13)). This particle expresses nothing but a vocal gesture like "here it is". Unlike its equivalent var in Turkish no temporal or modal categories are involved. It is not a hundertpercent pure sign of recognition, however, since it also signals a special type of predicative structure. It is predominantly used in predicative structures where no clearcut distinction between identificational and characterizing expressions can be established, i.e. thetic predications (generally of a presentative type, cf.p17f).[37]

As exemplified in (27), in cases where there is no segmental expression of challengeability in Tagalog, we find an unequivocal separation of identificational and characterizing expressions, i.e. a clearly categorical predication. Given this state of affairs, the following hypothesis about the structure of predicative expressions comes to mind: The less unequivocally separated from one another characterizing and identificational expressions are, the more there is a need to give challengeability a

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37. The only exceptions are expressions of possession as exemplified in (15) and (16) the exact analysis of which is not yet clear to me.

segmental expression of its own. Although this hypothesis can stand as a general tendency,[38] it is not a necessary correlation. There are thetic predications not involving a special marker of challengeability (e.g. the inversion-type (cf.p15). And there are categorical predications involving a special sign for challengeability (most of the constructions involving a copula in IE languages). Despite these clear deficiencies the hypothesis points to a line of investigation that might prove fruitful. The hypothesis involves two parameters along which predicative structures may vary: On the one hand, predicative structures differ with respect to the distinction between categorical and thetic. On the other hand, they differ with respect to whether there is an explicit (not pure!) marker of challengeability or not. Since there does not seem to be a necessary correlation between the two parameters, it seems useful to me to treat one at a time before trying to correlate them. Note that the basic purpose, i.e. to signal challengeability, is the same for both.

a) Explicit marking of challengeability

The basic idea for organizing the data in this area is taken from Clasen (1981:23ff) and Seiler (1983:62ff). They differentiate between logical[39] and semantic predicates.
To the former belong auxiliaries like to be and to have, but also a verb of possession like belong. The difference consists in the fact that the logical predicates basically involve less selectional restrictions than semantic predicates and that they often only allow for a defective paradigm (i.e there is no passive form for the three logical predicates just mentioned). Furthermore, as Seiler 1983:63 puts it, logical predicates "imply a certain amount of metalinguistic potential". This means that rather than expressing an extralinguistic state of affairs they express a linguistic (grammatical) concept like possession or

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38. Witness the fact that in most languages there are such signs of recognition as there is, il y a etc. in some types of thetic predications. Also the strong preference in Basque to use periphrastic predicates could thus be accounted for.
39. For more on the notion logical predicate see Seiler 1977:256f and 1984:83ff.

predication. As demonstrated by Clasen and Seiler, the distinction between the two kinds of predicates is a gradual one.

Since in this paper we are concerned with the distinction between predicative structures and not with predicates, the distinction just outlined has to be slightly remodelled. The basic tenet is to show differences in the degree to which challengeability is explicitly expressed. The concrete aim is to come up with a scale or even a continuum with the two extremes of very explicit and completely independent expression of challengeability vs. challengeability left unexpressed. The crucial parameter therefore will be the degree of independence between the expression for challengeability and the characterizing expression in a given predicative structure. As shown above, most markers of challengeability also involve identificational information so that the degree of independence between identifying expression and expression of challengeability cannot be expected to be an interesting parameter. Selectional restrictions and paradigmaticity will turn out to be secondary, but still important, parameters, because they allow for differentiating between several kinds of independent expressions of challengeability. Although I have not yet been able to come up with a complete picture of such a scale, at least the following positions have to be taken into account. I will start at the complete explicitness extreme:

- The most explicit expression for challengeability is to use the logical predicate (NOT)TRUE. The difference between The president likes war movies and It is true that the president likes war movies lies in the fact that the latter focusses on the decision to apply a certain characterization (likes war movies) to a certain entity (the president) and thus highlights the alternative involved (yes/no or true/false). Structurally, the expression of challengeability is taken out of the clause containing the other factors involved in a predication and thus is completely separated from either characterization or identification. TRUE is a metalinguistic predicate par excellence, since the only

arguments it allows for are linguistic 'objects' (clauses or words denoting speech (<u>report</u>, <u>sentence</u> etc.).

- Next come linguistic structures where the characterizing expression and the expression for challengeability are independent of, but still in construction with one another. Structurally speaking, the predicate expression is periphrastic, i.e. one part of the predicate expresses challengeability (Assertionsträger), the other part the characterization (Begriffsträger). But, in contradistinction to TRUE, both form a grammatical constituent. The following subdivisions can be established:

  - The expression for challengeability does not involve any temporal, modal or personal categories, e.g. Tagalog <u>may/wala</u> (cf. (13)) or the Chinese copula <u>shi</u>. Tagalog <u>may</u> does not allow for any derivations (most lexemes in Tagalog allow for quite complex morphological derivations). Furthermore, there are practically no selectional restrictions; it is compatible with all Tagalog lexemes.

  - The expression for challengeability is an auxiliary; it involves some of the categories expressed by full verbs in a given language. In English <u>be</u>, <u>have</u> and the modals are examples, in Basque the intransitive and transitive auxiliaries (<u>izan</u> and <u>ukan</u>), in Turkish <u>var/yok</u>. Insofar as temporal, modal or personal categories are involved, the auxiliary combines the expression of challengeability with information pertaining to identification. The characterizing expression is either a noun or some kind of nominalized form (e.g. gerund, participle, infinitive). Note that all periphrastic inflectional forms in IE languages (e.g. (plu-)perfect tense, expanded form, passive in English) belong here.

  - The expression for challengeability is a "full verb" that has lost most of its specific information, the notional content of the predicate being expressed by a nominalized form. Examples from German are so-called "Funktionsverbgefüge" (cf. Heringer 1968):

28a) ..., so <u>kommen</u> die Bestimmungen unter (d) <u>zur</u> <u>Anwendung</u>. (l.c.77)

b) Paul <u>bringt</u> seine Angelegenheiten <u>in</u> <u>Ordnung</u>. (l.c.42)

In Australian languages extensive systems of verbal classification seem to be grammaticalised by the obligatory use of different "function verbs" with different verbal stems (cf. the contributions to this topic in Dixon 1976:615ff, esp. pp673ff). The most common source of "function verbs" are verbs of motion which are often used in thetic predications (cf. Sasse in prep.). The main difference between these "function verbs" and "true" auxiliaries consists in the fact that they involve more selectional restrictions. They thus carry a limited amount of characterizing information.

- The next central position are predicative structures involving finite forms of full verbs which combine the expression of characterizing information and challengeability (cf. the quote from the <u>grammaire</u> <u>générale</u> above). Challengeability here is not left completely unexpressed, since the essential difference between finite and infinite forms of a verb is the fact that the former signal challengeability and the latter do not. But this expression of challengeability is inherently linked to the expression of characterization, it is morphologically bound and thus not indpendent.

- Finally, there are predicative structures without any explicit expression for challengeability (cf.(27) above) where no finite verbal forms are involved. Here challengeability arises from the mere juxtaposition of an identificational and a characterizing expression.

Considering this tentative scale of decreasing explicit expression of challengeability it becomes obvious that pure and simple markers of challengeability are rare. The main purpose of most of the periphrastic constructions that make up the main part of the scale is not to provide for a separate expression of challengeability and character- ization. They generally serve some specific function like

signalling aspect, mode, tense, passive (orientation), causation, verb-classes. They quite generally involve personal, temporal and modal categories which are also present in finite verbal forms. These categories essentially serve identificational purposes, i.e. they locate the utterance spatio-temporally. This state of affairs lends support to the claim made above (p39) that challengeability does not need an expression of its own, but rather that it arises from the interaction of identification and characterization. Apart from the extreme position occupied by TRUE and by some rare examples of nearly pure markers like Tagalog _may_, the main part of the explicit and independent marking of challengeability turns out to involve a separation of linguistic expressions for identification and characterization.

> In order to turn this scale into a continuum[40] it would be
> required that two complementary principles can be established that
> govern the variation outlined in this scale. The basic problem here
> is to come up with a general difference between synthetic and
> periphrastic expressions. All the specific categories mentioned above
> (aspect, tense etc.) basically also allow for a synthetic expression,
> but, I think, a periphrastic perfect or passive is not the same as a
> synthetic one. I have, however, not yet been able to come up with an
> underlying principle that captures this intuition. Furthermore, it
> can not be a matter of chance that some categories like perfect
> tense, imperfective aspect, future tense, passive etc. quite
> generally tend to be periphrastically expressed while present tense,
> active, perfective aspect are often synthetically expressed (see
> Bybee 1985 for a survey on a broad crosslinguistic basis). Only if
> this principal difference and the concurring tendencies have been
> more fully understood will it be possible to discover the principles
> underlying the variation with respect to the predicative act.

It can now be seen that the basic difference between the two parameters established above – explicit expression of challengeability and the distinction between thetic and categorical – at least partly pertains to different strategies used to identify a given point in the universe of discourse. In the case under consideration in this section identification via the shifter-categories person, tense and mode was of central concern. In a categorical predication another identificational strategy dominates the predicative structure: A participant is singled out, independently

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40. For UNITYP's understanding of "continuum" see Seiler 1983:72ff, 1985b, and 1986.

referred to and thus made the starting point or basis of the predicative expression.

> A third strategy I will only mention in passing. Identification does not necessarily need a linguistic expression at all; the point in the universe of discourse referred to may be clear from the context. This is the case in examples like (13) (May mga magsasaka "There were farmers") which is taken from a story and preceded by the following context: One day a holy woman who lives in a mountain area takes a walk and comes to a field. There were farmers (on this field). These have to work very hard etc.pp. This is also the case in poetic language if an author simply uses Night. as a clause being part of the setting for a story. But such predicative structures have a rather marginal status. The main distinction pertains to the two afore-mentioned strategies.

This second strategy is essential to establishing the linguistic relation of aboutness that is captured in the traditional definition of predication (saying something about something). I call the variation pertaining to the second parameter the continuum of predicative aboutness.

b) The continuum of predicative aboutness

In sections 2 and 3 the thetic/categorical distinction has been treated as an all-or-none distinction. This is correct, as long as one considers single examples. A given predicative structure is not a little bit thetic and a little bit categorical, it is either thetic or categorical. However, predicative structures may differ with respect to the degree to which one participant is singled out and made the basis of the linguistic expression of a predication (see below). Or, seen from the opposite point of view, they differ with respect to the degree to which they allow for a monolithic, non-bipartite expression of a state of affairs. If we use the terms thetic and categorical to denote the targets of these two tendencies, we can say that the passage from thetic to categorical is a gradual one. Note that we have thus given a slightly different interpretation to these terms. In the literature these terms are taken to denote different predicative acts, here they are taken to denote different linguistic forms a predicative act can take. In the former reading there can not be a gradual passage, in the latter such a passage is possible.

What are the principles governing the tendencies towards thetic or categorical form? Categorical form strives at establishing <u>linguistically</u> a relation of aboutness, thetic form tries to avoid it. Categorical form separates the expression of identification (via participant) and characterization and thus seems to be governed by the purpose to linguistically reflect the independency requirement as closely as possible (cf. p35). The basic purpose is to map the essential distinction presupposed by the predicative act – that between the extralinguistic point in the universe of discourse and the linguistic characterization of this point – onto linguistic structure, thus establishing linguistically a relation of aboutness and providing for challengeability. Note that this purpose involves a basic drawback. Mapping the distinction iconically onto linguistic structure means to blur the basic distinction between linguistic and extralinguistic so that the impression might arise that the predicative act pertains to the relation between predication-base and predicate expression rather than to the point in the universe of discourse and its linguistic characterization. It is this impression that has led to the fruitless traditional attempt to define predication in terms of subject and predicate. Connected with this drawback is the requirement that the linguistic expression of a state of affairs has to be bi-partite, i.e. there has to be a participant that can be singled out. This requirement is unproblematic in many cases, but there are states of affairs that do not involve participants (meteorological expressions) or that involve participants who have not yet been introduced to the universe of discourse. In these cases categorical form necessarily fails. Thetic form avoids this drawback, presenting the linguistic characterization as a coherent whole and leaving the identificational task to the context and general spatio-temporal indicators like the shifter-categories. It thus maintains the basic distinction between linguistic and extralinguistic concepts involved in a predicative act. Here, however, the drawback consists in the fact that the relation of aboutness between a given point in the universe of discourse and its linguistic expression does

not receive a linguistic expression. The independency
requirement is not unequivocally reflected in linguistic
structure. Thus challengeability can not arise from the
linguistic expression of such a relation, but needs a
separate indication of its own (a separate marker, an
auxiliary or a finite verbal form (see the scale above
p42ff)). The tendencies towards thetic and categorical form
are thus complementary tendencies. The more one aim is
achieved the less is the other, and vice versa. Connected
with this complementarity is the following seemingly
contradictory observation: Both tendencies are governed by
the common purpose of providing for an adequate linguistic
expression of the basic relation of aboutness pertaining to
the predicative act (i.e. that between extralinguistic point
of the universe and its linguistic characterization). The
one does it by the attempt to map this relation onto
linguistic structure, the other does it by avoiding any bi-
partition of linguistic structure. The one strives at
structural aboutness, the other at structural coherence or
unity. Both are done in an effort to establish a relation of
aboutness between a point in the universe of discourse and
its linguistic characterization in order to allow for
challengeability to arise. I will henceforth call the
principles governing categorical and thetic forms the
principle of _coherence_ and the principle of _partition_,
respectively. In constructions conforming to the principle
of cohesion predicative aboutness is (merely) _indicated_ in
the sense that the linguistic expression as a whole is
linked - via the shifter-categories - to the point in the
universe of discourse it characterizes. In constructions
conforming to the principle of partition predicative
aboutness is linguistically _established_ in the sense that it
is split up into two parts, one serving the identificational
task, the other the characterizing task.

Classifying a predicative construction as either thetic
or categorical does not imply that only the one or the other
principle is present. It means that one principle dominates
the other. Thetic predications, of course, do not present a
completely unstructured state of affairs. They involve a

certain amount of structural distinctions, as for example the basic distinction between participant(s) and participatum (event denoting expression). These in turn allow for such distinctions as the fact that a given thetic predication is rather about an entity than an event[41] and the like. In split structures (cf. p14) one participant is even singled out and further characterized by a subordinate clause. But the overall structural make-up of a thetic predication aims at structural coherence. This is clearly evinced by the split-structures just mentioned which generally involve an attributive (i.e. subordinating) relation between the prominent participant and its further characterization. In a categorical predication predication-base and predicate expression are not totally separated, but they are also linked to one another (minimally by a relation of order as in (27) above, and quite often by an agreement affix). Such a link gives the minimally required coherence to a categorical predication the parts of which would otherwise completely fall apart. But this indication of an overall unity in the linguistic expression of a predication is clearly subordinate to the dominating bi-partition characteristic of a categorical predication.

Note that the two principles only provide for delimiting and ordering the variation found in predicative linguistic structures. They do not explain <u>why</u> in a given case a thetic form rather than a categorical form is used. As hinted at above (p12ff), an answer to this question involves reference to discourse-pragmatic factors. Another even more difficult question left unanswered by the two principles, is the question why in some languages such as English and Tagalog predicative structures generally take a categorical form and in other languages such as Basque they generally take a thetic form. Such a question can only be answered if the underlying principles of the overall structural make-up of a language can be discovered.

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41. Cf. the distinction between event-central and entity-central thetic predications in Sasse (in prep.).

What is the structural evidence which the supposed gradual passage from thetic to categorical is to be based on? If the argument so far is correct, increasing aboutness should correlate with increasing structural independence of the expression whose function it is to serve as the identificational basis, as the starting point for a predicative structure. The participant chosen to serve this purpose is to be given a linguistic expression that clearly separates it (i.e. marks it differently) from the other participants. Furthermore, the predicate has to be unambiguously oriented towards it. I.e. the prototypical predication-base is recognized by the fact that it is segmentally unmarked compared to other expressions for participants (e.g. absolutive (very often = morphologically 0) case) and that it leaves some trace in the predicate (e.g. agreement). The existence of a predication-base in a language is further supported by the fact that the language provides for several mechanisms to bring different participants into a position definable in terms of the two said criteria. We will see below whether these three criteria provide intuitively satisfying results. Note that they have been derived from the preceding discussion and are thus given on a principled basis and not just in an ad hoc manner after some kind of order had been established.

The construct <u>continuum of predicative aboutness</u> makes the following claims:

- All predicative structures can be assigned a position on this continuum on a principled basis.
- The transition between the different positions is a gradual one.
- The common feature of all the structures involved is challengeability. Or, to put it differently, the task of all these patterns is to provide for the basic predicative relation of aboutness necessary for challengeability to arise.
- There are two complementary principles governing the linguistic expression of the basic relation of predicative aboutness. The principle of coherence demands a unitary linguistic expression of a state of affairs in order to

maintain a clearcut distinction between the point in the universe of discourse referred to and its linguistic expression. The principal of partition demands an iconic mapping of the basic relation of aboutness onto linguistic structure so as establish linguistically a relation of aboutness.
- Both principles are at work in every predicative structure, but to a different degree.

I will now turn to describing the <u>continuum of predicative aboutness</u>. Note that the different positions on this continuum refer to different predicative structures and not to languages. Thus the predicative structures of a given language will be distributed among several positions.

P: the leftmost position of this continuum, the point where overall structural coherence dominates. The focal points are inherently thetic structures, preferably of the type of Latin <u>pluit</u>, i.e. one word clauses or clauses consisting of a word and a particle such as Tagalog <u>malamig na</u> 'it's cold'. Moving a little bit towards the right hand side, other structurally more complex thetic structures follow. Thus the lefthand side of the continuum contains the following kinds of structures:
- event expressions like <u>it's raining</u>, <u>es brennt</u> etc.
- presentative constructions; see (4), (6), (13) and (14) above, for more examples see Hetzron 1971 and Wehr 1984
- thetic structures involving a complex state of affairs like (7), (9), (10), (17), (18); more examples in Wehr 1984, Ulrich 1985, Sasse in prep..

Although I am not familiar with Nahuatl, it seems to me that the following type of predicative structure also belongs here:

```
28) 0-qu-itta-0                     in  cihua-tl    in  cal-li
    3SGsub-3SGob-see-PRS/SG ADJ woman-ABS  ADJ house-ABS
    "la femme voit la maison" (Launey 1979:38)
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In this type of predicative structure, it has been claimed (cf. Humboldt 1836/1963:528ff, Milewski 1950:170, Whorf 1956:242f, Seiler 1977:228f) that the predicate presents the

state of affairs as a uniform whole, full NPs being added as appositions in order to further specify the referents referred to by the pronominal affixes within the verbal complex. The pronominal affixes are not to be taken as agreement affixes. It is not reasonable to claim that (28) is in some sense more about the woman than about the house. Both NPs are marked identically and there are pronominal affixes for both of them within the verbal complex; thus there is structurally no evidence for one NP being more prominent than the other.

An extreme example of this kind seems to be Abkhaz (again I am not familiar with this language), since here even prepositions are part of the verbal complex, the argument of the preposition being coded like any other NP in the clause:

29) a-sàrk'ʲa a-tjàmc y-a+d-k'ʲ+nà-s-ħa+lo-yt'.
    the-mirror the-wall 3sgIA-it+onto-?-1sg-hang+(dyn.)-FIN
    "I hang the mirror on the wall." (Hewitt 1979:138)

The thetic structures from Basque (cf. (19)-(23)) are on the borderline between this type of predicative structure and the following one (P(a,b..)), because they involve features from both types. On the one hand, the verbal complex is in itself a unitary whole, being capable of expressing a complete state of affairs. On the other hand, the participants are not simply juxtaposed to the verbal complex, but are themselves segementally marked as to the role they are playing in the given state of affairs.[42]

P< a , b , . . > : The dominant principle is still structural coherence. There is a clearcut predicate-argument relation, however, predicative structure thus being split into a primarily presentational expression (predicate) and identificational expressions (argument(s)). The predicate is conceived of as presentational rather than as characterizing, because the arguments are treated all alike (from a predicational point of view). It is thus difficult to claim that there is a predication about one of the arguments, rather a predicative relation holds between them.

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42. On the problem constituted by the fact that the absolutive is segmentally unmarked, see below.

As is well known, this formula plays a prominent role in dependency grammar and in modern logic (see above p7f). In Arabic grammar it is the model used for the verbal clause (in contradistinction to the nominal clause):

> "Zentrum des Satzes ist im 'Verbalsatze' das 'Verbum', oder richtiger der 'Vorgangsausdruck': arab. <u>fi'l</u> = ai. <u>kriyā</u> ('actio'). Zu diesem gehören als Ergänzung: der 'Täter' (arab. <u>fā'il</u>, ai. <u>kartr</u>) und das 'Gemachte' [43] (arab. <u>maf'ūl</u>, ai. <u>kárma</u>)." (Lohmann 1954:19)

Despite the fact that considerable theoretical attention has been paid to this type of predicative structure, to my knowledge it only rarely occurs in a pure form in natural languages. The following examples, from Samoan and Japanese respectively, are by no means the most usual types of predicative structure in these languages.

30) Ma   le   fafine lea 'ua alofa tele 'i   ai   e   le   tama ..
    and ART girl   DEM TA love very LO ANAPH ERG ART Junge
    "And the girl, the boy loved her very much..."
    (Moyle 1981:130/6)

<u>ma le fafine lea</u> is a left dislocated topic and not directly relevant to the present discussion. The important point here is that both arguments, the anaphoric pronoun <u>ai</u> referring back to the girl and <u>le tama</u>, are case marked (locative and ergative, respectively). Consequently, the attempt to show that the girl rather than the boy (or vice versa) is predicated about will not be successful. Note that topic-comment structure here is independent of predicative structure.

In Japanese[44] there is a well-known dispute as to what the exact difference between <u>wa</u> and <u>ga</u> is. Kuno (1972, 1973) uses the concept "neutral description", Kuroda (1972/73a) makes use of the thetic/categorical opposition (see FN16 above). For him the difference between (31a) and (31b)

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43. On Arabic grammatical analysis and terminology see Mosel 1975 and Owens 1984.
Ironically, the Semitic languages quite generally do not exactly fit the description given in this quote (Sasse p.c.). Due to order and agreement there is a certain prominence of the NP called subject in Arabic grammar. Since the agreement rules are far from clear, however, these languages probably belong to the transition type between P(a,b) and PB-P which is touched upon below.
44. I have to thank Takayuki Matsubara for helpful comments on the Japanese data.

consists of the fact that in the former something is said about the cat, while in the latter the state of affairs is presented as a uniform whole:

31a) Neko-wa sakana-o tabe-ta.
    cat-TOP fish-AKK eat-PAST
     PB   P

    "The cat ate the fish."

30b) Neko-ga sakana-o tabe-ta.   (id.)

One argument in favour of this analysis is that in prototypically thetic expressions ga is used:

32) Ame-ga   hur-u.   "It will rain."
    rain-NOM fall-NONPAST

The important point here is the fact that in Japanese there is no agreement and that all argument expressions are followed by a case marker. Thus, formally, no one argument is given prominence over the others. This actually includes, on a purely formal level, the topic (NP marked with wa). The special status of the topic thus has to be ascertained from other facts (see below).

Dixon (1977:384ff) claims that in Yidiɲ, in contradistinction to Dyirbal, there is no clearcut evidence for a PB and it seems more useful to him to analyse Yidiɲ clause structure without a VP-node (395ff). If this is correct, the predicative structures of Yidiɲ under consideration in these passages have to be put within this area on the continuum. Note, however, that they are already a little off the pure type (towards a PB-P type), since the absolutive is morphologically zero (1977:126) and thus given a certain prominence when compared to the other cases.
I suspect that there are many more cases like the Yidiɲ one just quoted (cf. FN43): on the one hand there is no agreement and no other clearcut evidence from morphosyntactic processes that would allow for an unambiguous identification of a PB. On the other hand, one argument is morphologically marked zero and thus, potentially at least, set apart from the other arguments. That there are not many examples for the pure type of the relational formula P(a,b) probably is connected with the

fact that languages rarely tend to have segmental markers for all cases.

Within the UNITYP conception of a continuum[45] such an area of inconclusive evidence is expected, because on a continuum there is an area where the two complementary principles are present to approximately the same extent. This area is called the turning point. The facts evinced by the data seem to point in different directions. As to predication, this is suggestively manifested in the literature concerning problems of identifying a predication-base (subject) in ergative languages (see for example van Valin 1981, the contributions in Dixon 1976:485ff, esp. Heath 1976, and Mosel 1985:111ff).

PB—P: Structural bi-partition dominates, there is a PB that serves as referential basis of the predicative structure. If the formula P(a,b..) is associated with the verbal clause, this is the pattern for the nominal clause; i.e. it is to be expected that predicative structures involving nominals as predicates will tend to be found in this area of the continuum.

Examples for this type are well known, since they are close to home. Modern IE languages primarily use this type of predication; the Tagalog structures exemplified in (10) and (27) also belong here; the prominent predicative structure in Dyirbal, at least as analysed by Dixon (1972 Chapt.5), as well. Note that these predicative structures are typlogically very different, IE exemplifying a subject-prominent[46] type, Dyirbal an ergative type and Tagalog belonging to neither (see FN21). Nevertheless, from a predicational point of view they are rather similar, because they all involve a specialized referential expression that something is said about.[47]

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45. Cf. Seiler 1983:72ff; 1985a/b; 1986.
46. See Sasse 1982 for this concept.
47. The similarity in this respect may be one reason why these languages have figured so prominently in the typlogical discussion in recent years. In languages where there is no PB, or at least not so clearly identifiable a PB, it is of course impossible (or at least hard) to determine the principles underlying the choice of a PB.

Jakobson (1936/72:33) — talking about the Russian nominative — describes the special features of a predication-base as opposed to other arguments in a clause:

> "Die Tatsache, daß der N im Gegensatz zu allen übrigen Kasus die Selbstentfaltung des bezeichneten Gegenstandes keineswegs einschränkt (d.h. weder seine Abhängigkeit von einer Handlung kennzeichnet, noch das unvollständige Vorhandensein im Sachverhalt der Aussage u.s.w.), sondert diesen Kasus von allen übrigen wesentlich ab und macht ihn zum einzig möglichen Träger der <u>reinen Nennfunktion</u>. Der N nennt unmittelbar den Gegenstand, ...
> Der N ist die merkmallose Form für die Nennfunktion der Rede. Er fungiert aber auch als Bestandteil einer Aussage, welche den Gegenstand nicht nur nennt, sondern über ihn auch etwas mitteilt. Doch auch in der darstellenden Rede bleibt die Nennfunktion des N-s stets mitbestimmend, ja maßgebend: der durch den N bezeichnete Gegenstand wird als der <u>Gegenstand der Aussage</u> (= Ausgangspunkt, N.H.) hingestellt."[48]

T—C: In topic-comment structures, partition dominates almost to the exclusion of any indication of structural coherence. Identifying and characterizing expression are almost completely separated. The topic often does not even fill any of the argument slots provided for by the verb. The only link between topic and comment is the rather weak link of order and intonation. The comment may itself consist of another predicative structure of any of the preceding types (i.e. P, P(a,b), PB-P).[49] Topic-comment structure here refers to topics "Chinese style" (cf. Chafe 1976:50f), i.e. topics that are part of clause structure and not those topics that involve cleft-constructions. The following examples are from Japanese, Chinese[50] and Tagalog respectively:

33) Kono nioi-wa   gasu-ga   more-tei-ru-nitigaina-i.
    DEM smell-TOP gas-?   leak-DUR-ADNOM-seem-NONPAST
                                          (conjecture)

        Topic   Comment
                              P(a)

    "Judging by this smell, gas seems to be leaking out."

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48. See also Kaznelson 1974:220ff, C.Knobloch 1985Ms.
49. Cf. the brief discussion of Hockett's conception of predication above (p9f).
50. I am grateful to Hilary Chapell for help with the Chinese data.

34) Nèi-zhǒng dòuzi yi-jīn sān-shí kuài qián.
    that kind bean one-catty three-ten dollar money

        Topic   Comment

    "That kind of bean, one catty is thirty dollars."
    (Li/Thompson 1981:96)

35) ..., sapagkat ang kuba   ay mahina ang katawan.
         because RP hunchback PD weak   RP body

             Topic   Comment   . ·
                                 P   PB

    "..., for the hunchback was weak of body."
    (more literally: "..., because as for the hunchback,
                      the body (was) weak."

The rather loose connection between topic and comment in
these constructions is witnessed by the phenomenon of zero
anaphora. I.e. very often there is no topic expressed at all
(cf. Li/Thompson 1981:657ff, Chen 1984):[51]

36) Bāger   shi yǐ zhǒng hēi yánse de niǎor,
    myna:bird be one CL   black color NOM bird

    ø huì xué rén   shuōhuà.
   can learn people talk

    "The myna bird is a bird of black color. (it) can learn
    to talk from people."

In focal instances of PB-P structures the expression for a
PB can not simply be dispensed with. It is part of the
argument structure provided for by the verb. There is no
difference in principle between Topic-Comment structures and
PB-P structures. In both the principle of partition
dominates the make-up of the predicative structure. Topic-
comment structures, however, follow this principle to a more
radical degree.

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   51. This example, including glosses and translation is taken from Chen (1984:34).
NOM stands for nominalizer, CL for classifier.

The following illustration depicts the continuum of
predicative aboutness.[52]

Continuum of predicative "aboutness"

| P | P (a, b,...) | PB - P | T - C |
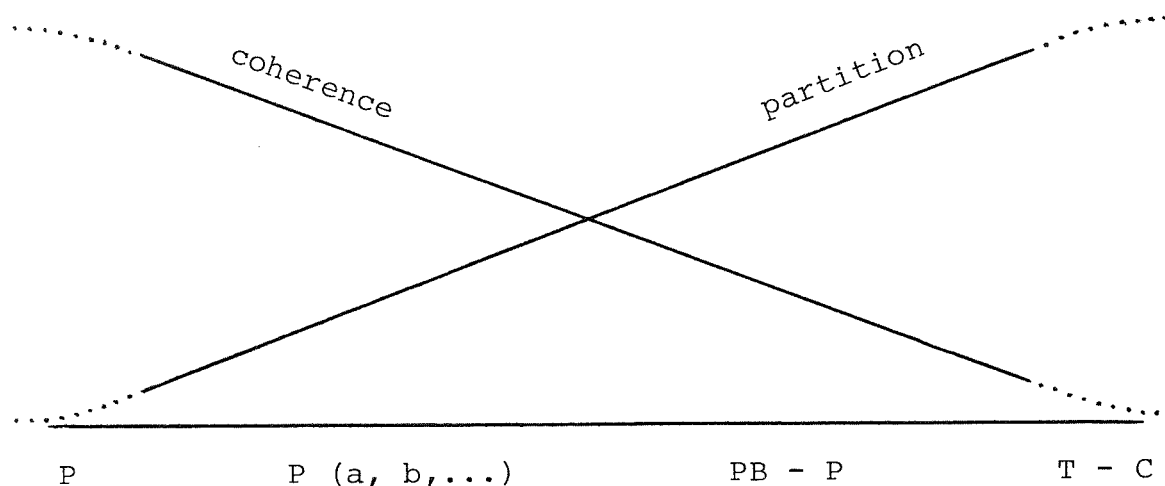
Both principles are shown to be present in all predicative
structures, since every thetic form involves at least a
minimal structural partition and every categorical form
involves at least a minimal sign of overall coherence
(cf.p48f above). An example for a minimal structural
partition in a thetic predication is that between stem and
ending as in Latin <u>plu-it</u>. The former contains
characterizing material, the latter identificational
material, signalling finiteness and thus challengeability.
Structural coherence is minimally signalled by order and
intonation as in topic-comment structures (see p56 above).

As stated several times in this section, there are some
strong correlations between the two scales of variation for
predicative structures. Thetic predications demand at least
a minimally explicit expression of challengeability (at
least a finite verbal form, very often an auxiliary and in
some cases even a nearly pure marker of challengeability).
Topic-comment structures, on the other hand, very often do

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52. This way of schematically displaying linguistic continua has been developed
by Seiler (cf. especially 1986). I thank Sonja Schlögel for drawing the illustration.

not contain any explicit marker of challengeability (cf. 34-36). But since there are no necessary correlations between large parts of the two scales, one scale can not be reduced to the other. This is due to the fact that they involve two different and basically unrelated strategies of identification, i.e. spatio-temporal identification and identification via participant. The former is present in nearly all predicative structures (with the exception of some marginal cases where identification is left completely unexpressed and thus to be achieved exclusively by contextual information); the latter is specific to categorical predicative forms.

6. Summary

The common denominator and thus the function of all morphosyntactically predicative structures is the fact that they present a challengeable linguistic characterization of a point in the universe of discourse independently identified. This common function does not demand a uniform linguistic expression, but allows for a certain amount of variation in the structural make-up of predicative expressions, that is there are several ways to bring about challengeability. The most simple and straightforward way would be to have a linguistic element signal something like "this is a challengeable linguistic expression" (Frege's sign of assertion ($\vdash$) is a case in point). But such an element is hardly to be found in natural language, the exception being a highly marked logical predicate like _true_. The absence of such elements in natural language is not due to chance. Rather, predicative structures reflect the fact that challengeability presupposes a certain interplay between the operations of identification and characterization. The two operations have to be independent of one another. But there also has to be a link between them. Furthermore, there are essentially two strategies for identification. The one is to identify the point in the universe of discourse by means of general spatio-temporal information, as it is expressed in grammatical categories such as person, tense and mode (spatio-temporal identification). The other is to identify it by providing for an independent referential expression of one of the participants involved in the state of affairs to be expressed (identification via participant). These two strategies are not mutually exclusive; rather, they are often used at the same time. Linguistic expressions pertaining to the former strategy — for example 'existential' particles, auxiliaries, verbal endings — can be said to signal challengeability explicitly (i.e. segmentally) in the sense that they directly link the co-occurring characterizing expression to a point in the universe of discourse. Note, however, that these elements are not pure markers of challengeability in the sense that

they signal nothing but challengeability. Rather, they
involve identificational information and often also
categories not directly relevant to predication such as
passive, causative etc.. The second strategy implies a
bipartition of the predicative structure. Challengeability
here is implicitly (non-segmentally) signalled by a
linguistic relation of aboutness between predication-base
and predicate. The variation in morphosyntactically
predicative structures can thus be shown to pertain to two
parameters which partly overlap:

1) the degree to which challengeability is explicitly and
   independently expressed, it being understood that
   challengeability is hardly ever expressed in a pure form.

2) the degree to which a relation of aboutness is
   linguistically established. The variation in this area is
   governed by two complementary principles. The principle
   of coherence pulls predicative structures towards thetic
   form so as to allow for a clearcut relation of aboutness
   between an extralinguistic point in the universe of
   discourse and its linguistic characterization. The
   principle of partition pulls predicative structures
   towards categorical form so as to turn the operational
   relation of aboutness (pertaining to the predicative act)
   into a linguistic relation of aboutness.

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