

ARBEITEN DES KÖLNER UNIVERSALIEN - PROJEKTS

Nr. 23

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DETERMINATION: A UNIVERSAL DIMENSION
FOR INTER-LANGUAGE COMPARISON
(Preliminary Version)



September 1976

### 1. Introduction

The basic idea I want to develop and to substantiate in this paper consists in replacing - where necessary - the traditional concept of linguistic category or linguistic relation understood as 'things', as reified hypostases, by the more dynamic concept of dimension. A dimension of language structure is not coterminous with one single category or relation but, instead, accommodates several of them. corresponds to certain well circumscribed purposive functions of linguistic activity as well as to certain definite principles and techniques for satisfying these functions. true universals of language are represented by these dimensions, principles, and techniques which constitute the true basis for non-historical inter-language comparison. categories and relations used in grammar are condensations hypostases as it were - of such dimensions, principles, and techniques. Elsewhere (Seiler 1976a: 4ff.) I have outlined the theory which I want to test here in a case study.

Determination is the case in point. The term, like such other terms as subject or negation, belongs to the 'universal' vocabulary of grammatical description. tion corresponding to this term is far from being clear. There is no generally recognized definition of it. Usually there is a distinction between two terms: a determinans and a determinatum. It seems that the relationship between the two is manifested in a number of morpho-syntactic constructions such as: Head-Noun with adjective or genitive or numeral or demonstrative or article or quantifier or relative clause etc. That these and other constructions should be determinative seems to be taken for granted, but it is left unclear why this should be so: why are they all instances of determination? And if there is a common denominator, why should there be as many different instances? Grammarians might tell us that determination has to do with the identification of objects of reference. At first sight this seems to be a well-circumscribed task. Why then should language provide such a variety and number of means for accomplishing it?

The notion of determination or determinedness has been linked to other notions such as definiteness (Trubetzkoy 1939, Moravcsik 1969, Krámský 1972). Trubetzkov treats both as different, but the difference does not become quite clear. Moravcsik entitles her well-documented and careful study "Determination", but throughout her text we find the term 'definiteness' and not 'determination'. Krámský links 'definiteness' with the presence of certain morphological elements such as an article or certain verb: inflectional endings and uses 'determinedness' or 'determination' in a broader sense to encompass such related phenomena as demonstratives, adjectives, genitives, and relative clauses. The nature of the relationship among all these constructions remains unclear. For Schwyzer (1936) determination is coextensive with the article syntagm. Coseriu (1955/75) has a keen sense of a unitary principle which he calls determination. He is primarily interested in the classificatory distinction of different kinds of determination such as actualization, discrimination, delimitation, identification; it is important that his distinctions are based on functional considerations. 'Determination' in a very wide sense is used by Trubetzkoy (1939), Greenberg (1963), and, in a still broader sense, by Vennemann (1974a, b). The former two enlarge the domain to include object-verb relationships, the object representing the determinans, Vennemann claims the relationship to be the same even in adverb (determinans) - verb, and in preposition or postposition - verb (determinans) constructions. Vennemann (op. cit.) advocates the operator-operand dichotomy which he considers to be synonymous with Trubetzkoy's déterminant-déterminé and with the function-argument dichotomy of symbolic logic. In his view, the relation is manifested in the following constructions: modifier - head noun, object verb, adverb - verb, verb - preposition, verb - postposition.

The following dilemma recurs in some of the works cited above and in many other studies on the subject not cited here: If determination is the universal category or one universal relation - universal being taken here in the traditional sense of 'occurring in all languages' - it seems

illogical to inquire into the "nature of determination in Modern German or in Tagalog". On the other hand, such problems as these have always been and still are legitimate topics of linguistic investigation. If we try to start from a single language, we are still caught in the dilemma: Krámský (1976:182) frankly admits that "We cannot give here a precise definition of the category of determinedness which could be applied to all languages concerned", and 183: "if we want to make an extensive typological survey of the occurrence of a language phenomenon in different languages, we must sacrifice to this aim the terminological precision". In such a view, then, a precise definition of determination could be given only for a single language. But how, under such a view, can languages be compared at all? must face the fact that the very bases of interlinguistic comparison are not yet clear. What is the tertium comparationis? A standard? An invariant?

The approach proposed and sketched in the following pages consists in taking the functional aspects seriously. We can take historical linguistics as practised in the comparison of Indo-European languages as a model. One of the major reasons for the great success of the latter was that the basis - and also the overall purpose (cf. Greenberg 1969:149) - of genetic comparison in linguistics are at least intuitively clear; for here we are confronted with a well-circumscribed function, viz. language change. Languages are compared to find out that they have changed and how they have changed; two words of two languages are compared in order to show how in a more or less remote past they were the same word of the same language, thus, to show how diversity develops out of unity. Now, the functional analysis of historical evolution is surely not the sole object of linguistic investigation. However, non-historical functional aspects are still largely unknown to us. It is, therefore, no wonder that 'typological' comparison - as Greenberg (loc.cit.) rightly points out - has had a much more marginal position in linguistics than genetic comparison, since the former has lacked, as it were, an apparent basis and a clearcut

goal. We must therefore undertake the first steps to make both the basis and the goal of non-genetic comparison apparent. Our hypothesis is that these bases and goals must be intimately related to the functions of verbal activity, and that the bases are not to be sought in reified categories for which universality is being claimed, but rather in dimensions established by certain universally valid principles.

Three kinds of observable facts are taken as indicative for the existence of a dimension as a basis for comparison: VARIATION, IMPLICATION, and SQUISHINESS (GRADIENCE). They help us to grasp the proper invariant dimension of which they are manifestations. Variation, implicational relationships and squishes tell us something about linguistic activity, i.e. "what speakers do", and about the tasks of verbal activity; and once these are recognized we will be a significant step closer to the tertium comparation of linguistic comparison.

# 2. Experiencing the Dimension of Determination in Modern Standard German

My exploration will take the following methodological steps: experience - recognition - theory (formalisation). That is, the dimensions I am looking for can be experienced by 'working on' actual language material. They belong to the intuitive 'tacit knowledge' of a native speaker; but it is precisely for this reason that they cannot be posited beforehand. Deductive method will obscure - rather than illuminate - the speaker's and the linguist's pre-theoretical knowledge.

### 2.1. Range of Facts

Since we are in the exploratory stage at this point, our terminology regarding determination will admittedly be imprecise. An attempt to introduce a more precise terminology will be made in chapter 3.

For different linguists the range of application of the term determination differs considerably. Normally, determination is understood as nominal determination. Here I must set aside the question whether it makes sense to speak of verbal determination. There is also some agreement that a core group of determiners consists of demonstratives and articles. Such terms as pre- and postdeterminer evidently widen the scope of facts. Where this seems helpful, I will distinguish between determiners in the stricter sense and 'determiners' (marked by quotes) in the wider sense.

In the following sections I shall endeavor to show that the range of facts to be covered by the term of 'determination' is not only wider than is commonly assumed but also that considerable differentiation must be made within the above-mentioned classes.

For the purpose of orientation I offer the following, somewhat stilted example, which contains a maximum number of different determinators:

(1) alle diese meine erwähnten zehn schönen roten die

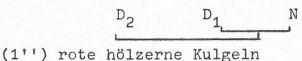
hölzernen Kugeln, die ich dir jetzt gebe
[= all these my afore-mentioned ten pretty red wooden
the

balls on the table, which I am now giving to you]

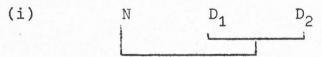
Note that numerals (zehn), quantifiers (alle) and different kinds of adjectives (schön,rot, hölzern) are being regarded as belonging to the dimension of determination. Most determiners normally precede the head-noun. Prepositional attributes and relative clauses must follow the noun. It is presupposed that the order of determiners given in (1) is the normal, unmarked one.

Three major types of constituent structure are possible within the sequence of determiners  $(D_1, D_2, \ldots, D_n)$  and head-noun (N):

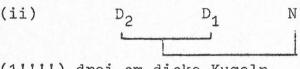
(b) progressive subordination, starting with N



(c) subordination among determiners



(1''') Kugeln in der Schachtel, die ich dir jetzt gebe



(1'''') drei cm dicke Kugeln

Structure (b) epitomizes our so-called dimension of determination. This means that an N is first determined by  $D_1$ , and this construction in turn is determined by  $D_2$ , the complex construction being further determined by  $D_3$ , etc.

Let us now examine the various classes of determiners, especially the ones preceding the N. Special attention will be paid to phenomena involving variation, implication, and squishiness. From these we shall try to extrapolate the particular function or functions involved, which, in turn, will help us to elucidate the nature of the dimension of determination.

There is one basic regularity, however, which holds for all the determiners with regard to their head noun in the sequence of (1):

(R<sub>1</sub>)(i) The range of application of a determiner-D to possible head nouns increases proportionally with its positional distance from N.

<sup>1)</sup> On the problems of parallel constituency of determiners ee Seiler (1960: 10).

Thus, in our example  $D_1 = \underline{\text{h\"olzern}}$  (wooden) applies to a smaller number of possible Ns,  $\underline{\text{viz}}$ . to those characterized by the feature [+ solid object], whereas  $D_2 = \underline{\text{rot}}$  (red) applies to more possible Ns,  $\underline{\text{viz}}$ . to those with the features [+ solid object] or [- solid object]. Again, there are more nominal notions which are potentially  $\underline{\text{sch\"on}}$  (nice, pretty, beautiful) than there are notions potentially  $\underline{\text{rot}}$  (red); the countable notions [ $\underline{\text{zehn}}$  (ten)]outnumber those being potentially 'pretty', the aforementioned' ones ( $\underline{\text{erw\"ahnten}}$ ) outnumber the 'countable'; the things which are potentially 'mine' ( $\underline{\text{meine}}$ ) outnumber the 'aforementioned' ones, things deictically pointed at and being close to the speaker ( $\underline{\text{diese}}$ ) outnumber things potentially 'mine', and alle (all) seems to be all-inclusive and to outnumber everything else.

There is another regularity concomitant to  $(R_1)(i)$ : If a determiner  $Dn_j$  has wider application than a determiner  $Dn_i$ , its force or potential of singling out from the totality of objects the one that the speaker wants to refer to is increased. Hence, we formulate the concomitant regularity:

(R<sub>1</sub>)(ii) The potential of a determiner D for singling out the object referred to by the head noun N increases proportionally with the positional distance of D from N.

# 2.2. Material Adjectives and Color Adjectives

In common grammatical practice both are subsumed under the term and notion of 'descriptive adjectives'. However, we have evidence for their belonging to two distinct classes. Differences become apparent in word order. The normal order is:

### (2) rote hölzerne Kugeln

It conveys the idea that among all possible balls in the universe of discourse the speaker wants to single out the

wooden ones, and that among all possible balls in the universe of discourse the speaker wants to single out those which are red. Now, with variation we get the word order

### (3) hölzerne rote Kugeln

This order is marked. It conveys contrastive ideas either in the sense that 'wooden' is opposed to some other material (e.g. eisern 'iron') or in the sense that 'red' is opposed to some other color (e.g. blau 'blue').

What does this variation in form and meaning show us? The semantic structure of <u>Kugeln qua</u> solid objects naturally implies material constitution of some sort; it implies - with a lesser degree of naturalness - some property in the color spectrum. To this gradient decrease in natural semantic implication corresponds the normal word order in which the 'determiner' with the strongly implied property is closer to the head noun than the 'determiner' with the less strongly implied property. If the natural order is reversed, we obtain an emphasis placed on either one or the other property.

An empirical correlate of naturalness in implication can be seen in the following relationship:

- (4) (i) hölzerne Kugeln Holzkugeln
  - (ii) rote Kugeln <sup>★</sup>Rotkugeln

From this we learn that there are constraints in composition which seem to be due to semantic factors rather than to morpho-syntactic patterning. I shall return to the subject below.

Gradient decrease in naturalness of semantic implication of properties by a head noun, which is suggested by these data, and which is claimed to be an all-pervasive principle in the serialisation as exemplified in (1) is, evidently, the converse of  $(R_4)$ . We may formulate this as follows:

(R 2) 'Determiners' indicate properties implied in the concept represented by the head noun. The degree of naturalness of such an implication of Dn; vs. Dn; decreases proportionally to the distance of Dn; vs. Dn; with regard to the head noun.

While R, corresponds to the principle of extension, R2 garresponds to the principle of intension. It is, in G. Frege's (1892/1962:64ff.) terms the dichotomy between the CONCEPT (Begriff) (R2) with its correlated notions of PREDICATE and PROPERTY, and the OBJECT (Gegenstand) with REFERENCE, INDIVIDUAL or CLASS as correlated notions. 2 It seems to be generally assumed that CONCEPT and OBJECT are two diametrically opposed poles where no in-between is possible. An important point which I should like to drive home is that in the sequence of 'determiners' as presented in (1) there is indeed a continuum from CONCEPT to REFERENCE and, conversely, from REFERENCE to CONCEPT. Moreover, I should like to point out that each 'determiner' in the sequence participates in or contributes to both principles in different degrees: The more widely a 'determiner' is applicable to a head noun (R1), the more it contributes to determining the REFERENCE and the less it contributes to determining the CONCEPT of the head noun (R2). The less widely applicable a 'determiner', the less it contributes to REFERENCE  $(R_4)$ , and the more it contributes to identifying the CONCEPT (R2), explicating, as it were, its inherent PROPERTIES. The foundation of these views will now have to be tested by examining the subsequent determiners.

# 2.3. Evaluating adjectives and affective adjectives

Evaluating adjectives come in antonymic pairs like schön (ex. (1)) - häßlich, groß - klein, arm - reich. They

<sup>&</sup>lt;sup>2</sup> I am indebted to Dr. H. van den Boom, Mr. G. Brettschneider, and Dr. E. Holenstein, with whom I discussed problems regarding extension and intension.

typically show gradation. They are also typically connected with the speech-act, for it is the speaker who does the evaluation according to his own views: what speaker X finds beautiful may seem ugly to speaker Y.

In normal, unmarked word order evaluating adjectives precede the color adjectives, in other words: they surpass the color adjectives by one digit in positional distance with regard to the head noun:

(5) (i) schöne rote hölzerne Kugeln

If this order is changed, we get sequences of questionable acceptability:

- (ii) (?) rote schöne hölzerne Kugeln
- (iii) (?) rote hölzerne schöne Kugeln

The sequences become acceptable if the evaluating adjective is separated from the other adjective by a pause:

- (iv) rote, schöne, hölzerne Kugeln
  - (v) rote hölzerne, schöne, Kugeln

But then the evaluating adjective is no longer a subordinated one but rather a parallel constituent vis-à-vis the other determiners.

If our interpretation of  $(R_1)$  and  $(R_2)$  as given in 2.2. is correct, we should expect that evaluating adjectives surpass color and material adjectives in distance with respect to N because their specificatory function (i.e. the function which determines reference or extension) outweighs their characterizing function (i.e. the function which determines properties of the concept or intension). This is indeed the

case, and it is understandable why this should be so:
Identification of referents is fundamentally linked to the
individual speech-act. Evaluating adjectives are, in some
sense, connected with the speaker and thus with the speechact. There is agreement between the two statements.

Affective adjectives like <u>wunderbar</u> 'marvelous' <u>scheußlich</u> 'dreadful', <u>blöd</u> 'stupid' are even more intimately involved with the speaker and the speech-act than the evaluating ones. They usually lack antoyms, and they also lack gradation. For the choice of a particular adjective, the presence of both antonyms and gradation in the evaluating adjectives seems to guarantee a certain independence with respect to the speaker and speech-act, an independence not guaranteed in the affective adjectives: There are probably more people who would agree on which side of the dichotomy <u>larg</u> 'long' - <u>kurz</u> 'short' an object should be classified, the more so since evaluation presupposes certain accepted standards. Correspondingly there are less people who would agree that something or someone is simply 'stupid'.

Affective adjectives can be homonymous with evaluating ones, e.g. <u>arm</u> 'poor'. Yet they are a distinct class, and in normal order they precede the evaluating ones:

# (6) (i) armes reiches Land! 'poor rich country'

This is not a contradiction precisely because there are two different positional classes. In contradistinction to <u>reich</u>, <u>arm</u> is affective and endearing, being outside the domain of material wealth. If we invert the order:

#### (ii) reiches armes Land!

<u>reich</u> is the adjective removed from the domain of material wealth; it thus assumes some such component as 'rich in spiritual values'. The principles  $(R_1)$  and  $(R_2)$  and our interpretation thereof are thus confirmed.

### 2.4. Numerals

The Janus-like nature of 'determiners' vis-à-vis the two principles of extension  $(R_1)$  and intension  $(R_2)$  is particularly apparent with respect to numerals (cardinals and ordinals). They are concerned with intension and thus reflect qualities inherent in N, which must be [+ Count]. In some instances they also agree in case inflection:

(7) Zweier schöner hölzerner roter Kugeln

On the other hand, determination of N by means of a numeral n has the effect of "sorting out" sub-total of nN, and hence of contributing to the identification of referents.

It is important that variation contributes to the confirmation of this analysis. We have normal word order, which is

(8) (i) Zehn schöne hölzerne rote Kugeln

with the numeral distance of the numeral surpassing that of the evaluating (and the affective)adjectives. We have marked orders such as

(ii) schöne zehn hölzerne rote Kugeln

which, for some speakers, have a slightly contrastive function implying that in contradistinction to the 'pretty ten ... balls' there might be others not pretty. We also find

(iii) schöne hölzerne rote zehn Kugeln

which suggests an almost indissoluble unity between  $\underline{n}$  and N, as if they expressed one single concept. The following example is even more illustrative:

- (9) (i) die heiligen drei Könige = ['the (three) Magi' or 'the (three) wise men from the East']
  - (ii) die drei heiligen Könige 'the three holy kings'

In (i) <u>n</u> and N are almost like members of a compound. In fact we find numerous compounds showing <u>Dreikönig (s)</u> as a first member. It is typical for composition that the meaning of the total is narrowed down vis-à-vis the addition of the meanings of the constituent parts. The numeral 'three' is indeed an integrated component of the notion of 'the Magi' in German, and, consequently, has its position right next to the noun. In contradistinction, (iii) would refer to any 'holy kings' which happen to be three in number but for which 'three-ness' is not essential.

As before (see 2.2.), we attack the problem of the role and position of compounds within the dimension of determination. There are obviously constraints but also favoritisms in the productivity of compound formation, which cannot be explained on the basis of conventional morpho-syntactic considerations, but for which the regularities as outlined here offer an intelligible rationale. We cannot delve into this question, which certainly deserves more thorough investigation.

# 2.5. Participial anaphoric adjectives

I have in mind such adjectives as <u>bekannt</u> 'known', <u>genannt</u> 'mentioned', <u>(vor-)erwähnt</u> '(previously) mentioned'. They explicitly refer to what is known or has been mentioned before the time of the speech-act and thus it seems natural that their potential for 'pinning down' a referent is rather high. Accordingly, they precede the numeral in normal word order:

(10) erwähnte zehn schöne hölzerne rote Kugeln

# 2.6. 'The turning point'

We now come to a point in the continuum of 'determiners' where several things change. The participial adjectives of 2.5. can be preceded by the article (definite or indefinite) or

the possessive pronoun - which seem to belong into the same position class but which certainly differ in function. Still more retracted positions can be filled by demonstrative pronouns, quantifiers, and, eventually, adverbials. By and large, these constitute the group of determiners in the more restricted sense. There is evidence that the principles  $(R_1)$  and  $(R_2)$  and their interpretation as outlined in 2.2. also hold for them (see below). Thus, the difference must not mislead us to overlooking the common principles. The elements just mentioned differ from the elements treated in the preceding sections mainly in two respects:

- 1. They do not admit positional variation, neither among themselves (e.g. \* meine diese..., \*diese alle...), nor with respect to the preceding elements (e.g. \* zehn die..., \*schöne diese..., etc.).
- 2. They do not admit relativization. Relativization is possible as a variant of 'determiners' discussed so far.

  Compare
- (11) hölzerne Kugeln Kugeln, die hölzern sind
- (12) schöne Kugeln Kugeln, die schön sind
- (13) zehn Kugeln (?) Kugeln, die zehn sind
- (14) meine Kugeln (?) Kugeln, die meine sind Kugeln, die mein sind
- (15) die Kugeln \* Kugeln, die die sind
- (16) diese Kugeln \*Kugeln, die diese sind
- (17) alle Kugeln \*Kugeln, die alle sind

Looking at the acceptability of these sequences there is a transitional zone in the numeral and possessive positions indicated by question marks and the existence of similar alternative constructions. Outside this zone, things are quite clear. This means that 'determiners' in the wider sense can be predicated, while determiners in the narrower sense cannot. The

existence of a transitional zone is just one of several instances of 'local squishiness' (for another instance see 2.7.) which corresponds to the over-all continuum as formulated in  $(R_1)$  and  $(R_2)$ .

Variation is one of the phenomena which I take as indicative for a behavioral-cognitive function and a corresponding dimension of language structure, the other two being implication and squishiness. If (positional) variation is excluded for determiners in the narrower sense, we find, instead, implicational relations and local squishiness.

It is interesting that implications may go in two directions indicated by  $(R_1)$  and  $(R_2)$ . Thus, considering  $(R_1)$ we might say: To the extent that reference is determined by a demonstrative (dieser 'this') it can also be determined by the definite article (der 'the'), although the reverse is not true. In comparison with the definite article the demonstrative effectuates a further narrowing down of reference by singling out the objects in the speaker's proximity. On the other hand, considering (R2) we might say: By virtue of its opposition to the indefinite (ein 'a') the definite article introduces some such component as 'presupposed to be identifiable by the hearer' (see below 2.7.), not present in the demonstrative. It is this relationship which is probably intended by the somewhat cryptic formulation ("the article influences the noun somehow from the inside, that is to say it influences the noun in its very essence, whereas the demonstrative pronoun merely points from outside without substantially affecting the noun") in J. Krámský's monograph on the article (Krámský 1972:33)3.

<sup>&</sup>lt;sup>3</sup>Cf. also V. Mathesius' pertinent remark cited in Krámský, 1.c.: "A genuine article may be spoken of only when its use results from the meaning of the noun itself ...". Mathesius recognized the important intensional (R<sub>2</sub>) aspect in the article.

### 2.7. Articles

To deal with the numerous problems connected with the different kinds of articles adequately is a task far beyond the scope of this paper. I should like to refer to the important monograph just cited (Krámský 1972), an illuminating study by N. Burton-Roberts (1976), and two mimeographed papers by B. Comrie (1976a and 1976b) concerned with definiteness. All I can do here is to point out in a number of succinct statements the particular position of articles within the dimension we are exploring.

- 1. The fact that in the determinative sequence of German (our ex. (1)) the article has its position exactly at the 'turning point' (see 2.6.) must be stressed. The reasons for the original coinage of the term (Greek <u>árthron</u> 'joint; connecting word') by Graeco-Roman grammarians are not clear. And evidence from Modern Standard German may be linked to this only way of a universal principle which we still hope to discover. Yet, it is significant in this context that the German article does have a linking function in many respects (see the following points).
- 2. The function commonly attributed to the article is definiteness. Neither in German nor in other languages is the article the only definiteness marker. Definiteness should not be equated with deixis. It is true that deixis is a 'source of reference' (cf. Lyons 1974), but it is not the only one. Genetically articles have evolved from former deictic elements such as demonstrative pronouns. But it is mistaken to regard in the article as 'nothing but' a weakened deictic.
- 3. In German there is the contrast between the definite and indefinite article, or, functionally speaking, between definiteness and indefiniteness. It is usually linked to the notions of 'what is known/unknown' or 'has been/has not been previously mentioned'. Comrie's studies (1976a,b) indicate that things are much more complex than that. Both in English

and in German definite vs. indefinite article bring into play a pragmatic dimension of conversational interaction where "the hearer will try to identify the referents of the noun phrases in the speaker's utterance" and where "the speaker's utterance will therefore contain various clues telling the hearer how to set about solving the referent identification problem..." (op.cit.15). Comrie goes to say that "definiteness is just one, extreme, instance of this: by using a definite noun phrase, in an absolute sense" (loc.cit.). From these and ensuing discussions we learn that there is reason for assuming 'definiteness' in a wider sense in which there is not an absolute contrast between 'identifiable' vs. 'not identifiable', but rather a scale of relatively greater or lesser identifiability. Comrie's examples - which could also be copied in German - are:

(13) Fred was looking for a book

This is ambiguous as to identifiability, depending on whether it can be continued with

- (i) but he did not find it or
- (ii) but he did not find one

In the first reading, there is a specific book that Fred was trying to find, in the second reading, any book would satisfy the quest. It looks as if within the overall range of 'determination' with its phenomena of transition and squishiness the articles constituted a subdomain with its own, or local, squishiness.

4. For both the definite and the indefinite article there is a generic vs. a specific use, which complicates the problem considerably. Burton-Roberts (1976:442f.) have convincingly shown that the semantic distinction between generic definite vs. generic indefinite is a contrast between the class itself, hence, in Frege's sense, an OBJECT, and what constitutes membership of the class, hence a CONCEPT. His examples:

- (14) A whale is a mammal: predicates 'mammalness' of 'whaleness'
- (15) The whale is a mammal: predicates 'mammalness' of the class whale.

Once more, we find in this contrast our two converse principles of extensionality  $(R_1)$  and intensionality  $(R_2)$  respectively.

5. It is often claimed that the indefinite article in German - as well as in English - is essentially the numeral 'one' (see, e.g., Moravcsik 1969:88). Again, we must reject the identification. True, there are good arguments for the generic derivation of the indefinite article from the numeral 'one' in many languages. But the functional contrast hinted at in points 3. and 4. are outside the domain of numerals.

### 2.8. Possessive pronouns

Their potential of referential fixation resides in their connecting the concept expressed by the head noun to the speaker or the addressee or a third person designated by the speaker (see Seiler 1973:231f.).

# 2.9. Demonstrative pronouns

Their fixation potential resides in their directly localizing the object denoted by the head noun as being either in proximity of the speaker: <u>dieser</u> (<u>hier</u>), or at a distance: <u>jener</u> (<u>dort</u>).

Demonstratives and articles may co-occur, but only in an appositional construction:

(16) diese, die genannten zehn schönen roten Kugeln

### 2.10. Quantifiers

I have in mind the element <u>alle</u> 'all' and, eventually the related elements <u>einige</u> 'some', <u>keine</u> 'none of ...', <u>viele</u> 'many', <u>welche</u> 'which ones'. While <u>alle</u> fits into the sequence without complication, the others can only appear in that position by using a genetive construction:

(17) einige (keine, viele, welche) dieser zehn... Kugeln

Logically, we would expect the reference of a noun determined by alle or keine to be entirely and unequivocally established. Additional reinforcement of the fixation potential is brought about by letting the quantifier be preceded by such adverbials as nur 'only', wirklich 'very', genau 'exactly'. The last mentioned is very popular, particularly in casual speech. It is as if, at least potentially, the sequence of 'fixators' of reference could be continued without an end.

### 2.11. Postponed determiners

I shall say nothing here about prepositional attributes (e.g. <u>auf dem Tisch</u> 'on the table'), nor about relative clauses. Appositions can either precede or follow the noun. Significantly, their position is right next to N. But I shall not go into this any further. Genetives may also follow the N. However, if they precede N, their position must be that of the possessive pronouns.

### 3. Elements of a Theory

We have now exper ienced and formulated some regularities involving variation, implication, and continuum or squishiness, which point to certain communicative tasks and which suggest the existence of a particular dimension of language structure as well as appropriate principles for fullfilling these tasks. The exploration has been carried out within one language; it has been a survey rather than a complete description, and many details need further elaboration. It is therefore premature to attempt a theory accounting for the facts observed, let alone to give a formalized theory. In the following, I shall try to furnish a few elements which are needed for the construction of such a theory.

First of all, I propose the following terminological conventions:

- 1. <u>Determination</u> I use as the name of that particular dimension of language structure which is concerned with the tasks of specifying reference on the one hand, and with characterizing a concept on the other, and which encompasses such phenomena as described in 2.1 2.11.
- 2. Specification I use as the name for the principle tentatively formulated as  $(R_1)$  which corresponds to the task of identifying reference. The principle is manifested by different attributive classes which differ in their potential for establishing reference from weak to strong. In German they are formally marked by word order regularities. Specification is thus determination of reference.
- 3. <u>Oharacterization</u> I use as the name for the principle tentatively formulated as  $(R_2)$ , which corresponds to the tasks of explicating the properties of a concept. The principle

is manifested by the same attributive classes as in 2. with a potential for predicationg properties which is inversely proportional to their reference identification potential. Characterization is thus determination of a concept.

The terms of specification and characterization I have used as early as 1960 (Seiler 1960:19) to distinguish between essentially the same phenomena with special reference to restrictive vs. non-restrictive relative clauses.

4. <u>Definite</u>, <u>definiteness</u> I use as the name for that particular function within the dimension of determination which has to do with the communicative interaction between speaker and hearer relative to the task of reference identification.

As a preparatory step for constructing a model of my view on the dimension of determination - which I consider to be a task for the future - I will try to characterize the understanding of determination as it is hitherto prevalent in the linguistic and in some of the philosophical literature. There is a view according to which the main purpose for which we use language is the purpose of stating facts about things and persons and events: "If we want to fulfill this purpose, we must have some way of forestalling the question 'What (who, which one) are you talking about?' as well as the question, 'What are you saying about it (him, her)?'" (Strawson 1950/ 1963:181). The task of forestalling the first question is the referring (or identifying) task. The linguistic means used in fulfilling this task are called determiners, determination. The task of forestalling the second question is what linguists call the predicative task and what some philosophers (e.g. Strawson, loc. cit.) call the attributive (or descriptive or classificatory or ascriptive) task. Now, according to the common view the performance of these two tasks can be assigned to separable expressions: It is held

that a linguistic entity cannot simultaneously be attributive and referential (see, e.g. Burton-Roberts 1976:429). Trubetzkoy (1939:133) sharply distinguishes between 'syntagmes déterminatifs', 'syntagme sujet + prédicat', and 'syntagmes sociatifs' as the three major types of syntactic relations. It is generally assumed that linguistic elements are specialized in serving either a referring or a predicative function. It is said that proper names are uniquely referring and that deictic elements (locatives, demonstrative pronouns, articles) are the linguistic means to specify reference. This is what I would call a reificational view. It regards categories and relations (such as determination) as if they were things, as if they were not only distinguishable but also neatly separable. As far as linguistics is concerned, two major difficulties arise from such a view: The first concerns the definition and delimination of linguistic categories and relations. How should we define determination? No satisfactory answer has been found to this question as yet. Should we include or exclude adjective, genitive, and relative constructions, the article, etc.? Obviously, if we say rote Kugeln 'red balls', we mean a restricted set, and if we say diese Kugeln 'these balls', we also mean a restricted set. There is a common functional denominator which linguists have intuitively felt. But should the adjective be called a determinator? The other major diffuculty arising from a reificational view concerns the comparison of language specific phenomena. Suppose we decided to define determination as those regularities of serialization which are found in Modern Standard German? But there are languages where very little or no corresponding word order regularities can be found. We are then left with Krámský's dilemma (see above, 1.): Define determination with precision in only one language, or vaguely in many languages.

How would a 'dimensional' view as intuitionistically applied in chapter 2 differ from the 'reificational' view as characterized above? I shall briefly discuss the following points:

- 1. I am interested above all in the functional aspect. But how can this be done? What is known about language functions? We can, as we did in chapter 2, observe regularities concerning variation, implication, and continuum. They have proven to be remarkably consistent. This provides assurance of some basic principles at work the ones which I have called, respectively, specification and characterization. It turned out that they are not independent but stand in a converse relationship to each other. This complementarity, then, has led me to positing a common dimension which I call determination.
- 2. Distinction yes, separation no. In German the dimension of determination happens to be rather neatly manifested in sequential order. There are position classes which are distinguished by special regularities. But the regularities always point in either the direction of characterization or that of specification. There is also a 'turning point'. Essentially, it is the point from which determiners cannot be relativized, i.e. cannot be predicated any more. There is an intrinsic connexion among the intensional aspects of a concept and characterization and predication (see 2.2.). This connexion would be further substantiated if we took apposition into account. Apposition is predominantly intensional, and it has strong affinities with (parenthetic) predication (see Seiler 1960:27f.). But in spite of the incision marked by the 'turning point', the dimension does not end there. It is true that demonstratives cannot be predicated, yet they are not entirely devoid of properties related to properties of the head noun: In German there is agreement in gender, case, and number.
- 3. A further aspect I am strongly interested in could be called 'constructivism'. The 'dimensional' view should account for what speakers do. This is not to be confounded with prag-

matics, at least not in the sense of 'naming ships' and 'making promises'. But speakers do construct the reference of a concept by singling it out from different perspectives such as material constituency, evaluation, number-set, location, etc. Philosophers since the Middle Ages have said that the individual is ineffable (individuum est ineffabile), and indeed, we have seen that referent identification could in principle be an endless task. To make it finite, the context is a decisive factor. Concomitantly with referent identification the speaker also constructs an intensionality spectrum of the concept. This is closely akin to the principle of descriptivity explained elsewhere (Seiler 1975:2ff.).

### 4. The dimension of determination in interlinguistic comparison

The motivation for introducing the - perhaps - new concept of dimension and the related concept of principles stems from ongoing research in language universals and in particular from the conviction that the bases and goals of nongenetic interlinguistic comparison has so far remained in the dark. It remains to be tested whether the concepts introduced here can shed light on the problem.

In what sense can the dimension and the principles lay claim to universal validity? I hasten to point out that I do not claim universality for any of the 'things' found in the determinative constructions of German: Neither for the properties of serialization, although similar properties are found in a great many languages, nor for position classes and their properties, although as classes they seem to have a very wide range of application. It is rather the concurrence of these different factors with respect to a fairly clear purpose: that of referent identification.

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<sup>&</sup>lt;sup>4</sup>I am indebted to Dr. H. van den Boom for bringing this to my attention.

In the following I shall give a few hints on how the concepts might be used in interlinguistic comparison.

- J. Greenberg (1963:68f.) has formulated the following "Universal": "When any or all of the items (demonstrative, numeral, and descriptive adjective) precede the noun, they are always found in that order. If they follow, the order is either the same or its exact opposite". This is a striking regularity, but Greenberg does not further elaborate its structural nor functional significance. The statement which includes both implication and variation, may be charted as follows (d = demonstrative, n = numeral, a = adjective, N = head noun):
- (18) all elements precede: d n a N German, English
  all elements follow: N a n d Diegueño, Swahili, Kikuyu
  N d n a Kikuyu (less popular
  variant)

I do not know what the "less popular" variant of Kikuyu is supposed to connote. I suppose that the relationship of the satellites to the head noun could be appositional. Within the German sequence we found appositional relationships when the normal word order was changed. Normally and even 'universally', the demonstratives come at the outer ends of such sequences, followed inwards by the numeral and descriptive adjectives. If we take 'constructivism' into account, we will be in a position to explain why this is so: Reference of a noun is construed by adding determiners with increasing potential for fixation. Demonstratives are among the strongest, numerals are weaker, adjectives weaker still. Quite often the fixation potential of demonstratives gets weakened, so they turn into articles. New and still stronger demonstratives (or local expressions) have to be added. Naturally this progressive addition takes place at the 'outer ends' of the noun phrase.

An interesting case where this kind of 'constructivism' is fairly transparent is presented by Sango, the lingua-franca

of the Central African Republic (Samarin 1967). Serialization and position classes, as they appear from Samarin's description, may be charted as follows:

(19) 4	3	2	1	HEA:	D	1	2	3	4	5
			descr.a	ıdj.	num.		relat	.demonstr		
mbéní 'some' 'a certain taá 'real' gé 'only'	'Plur!	mbéní ''some'	kété 'small' kótá 'large'	small'			nî	so'this'	venî 'the very'	kóé 'all' ngá 'al- so'
			pendere 'young'		pend	lere				
			víkí 'black'		v5k3					
					inta	arg.		deictic elts.		

Descriptive adjectives stand next to the head noun with variation between their immediately preceding or following. Pronominal elements follow at a distance either to the left or to the right; and elements reinforcing reference identification like 'real', 'only', 'the very', 'all' (cf. the position of all in German) are found at the outer ends pre- or postnominally.

A very different situation is found in Lamutian, a Northern Tungusic language as spoken around the Okhotsk Sea (Benzing 1955). Word order in this language appears to be very free. No serialization properties comparable to those of German or Sango have been found. Instead the grammar reports a very rich system of suffixes marking off different classes and subclasses of adjectives of different fixation potential which is reminiscent of the classes found in German.

The suffix -kun marks off adjectives denoting 'small spatial extension', its absence implies 'large spatial extension' (Benzing, op.cit.:25).

Reference to an object identifiable for the hearer due to previous mention (definiteness) is brought about by infixation of the element -n- in both the head noun and an adjective:

(20) mun aj.in.un diwad.an.un tulla bisni our good-aforementioned birch-tree-aforementioned outside is (op.cit.:54).

Lamutian does not have an article, neither definite nor indefinite.

The narrowing down of sets is brought about by a number of collective suffixes (op.cit.:26f.):

- -ja 'collective for things singled out'
- -(a)g 'collective for things not singled out'
- -t 'collective for things not singled out which are of small extension'
- -k+s(a) 'mass', especially 'skin of animal'
- -nra 'mass consisting of similar elements'

Here again we are confronted with progressive identification of referents, hence with the dimension of determination. Although the facts are vastly different from those discussed for German, the two orders of facts become quite comparable under the 'dimensional' view.

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In der Reihe akup erscheinen die Arbeiten des Kölner Universalienprojekts (DFG-Projekt, Leitung Prof. Dr. Hansjakob Seiler). Die Nummern 1 - 15 sind erschienen als Linguistic Workshop I - III (LW I, LW II, LW III), München: Fink 1973-75.

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