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CONTENTS

1. Activities

2. An illustration of the UNITYP approach

2.1. Premises

2.2. Defining the cognitive-conceptual domain

2.3. Defining mental operations

2.4. The dimension of POSSESSION

2.4.1. The scale of subdimensions

2.4.2. Ordering within the dimension

2.4.3. Delimiting the dimension

2.4.4. Delimiting the subdimension

2.5. A bird's-eye view on other dimensions

3. Basic thoughts

3.1. Aims

3.2. Function

3.3. The twofold approach

3.4. Language and cognition

4. Basic notions

5. Language universals research and language typology

6. Diachrony

7. The gradual unfolding of the UNITYP framework

8. Translatability and language universals

9. Language universals research and language typology, past and present

Language Universals and Typology in the UNITYP framework

Hansjakob Seiler, University of Cologne

"Equivalence in difference
is the cardinal problem of
language and the pivotal
concern of linguistics."
Roman Jakobson 1959/1971:262

1. Activities

UNITYP is the name of our research group and stands for "Language Universals Research" (henceforth abbreviated as LUR) "and Language Typology" (henceforth abbreviated as LTYP).[1] The group's headquarters is the Institute of Linguistics at the University of Cologne/Germany. Activities started in 1972 on a voluntary basis with this writer as the principal investigator and a few members of the Institute. It received funding by the German Research Council (Deutsche Forschungsgemeinschaft) since 1973. It began as an individual project and developed into a "Unit" (Forschergruppe) by 1978 and is still operating. I welcome this opportunity for expressing - in the name of the entire group - our feelings of deep gratitude and indebtedness to the Deutsche Forschungsgemeinschaft for its unfailing generous support

through all these years.

The group included full-time and part-time workers and student helpers of a varying number. Former co-workers became Associated Members when they were appointed to other jobs. Quite a few of them are still attending our project meetings. We also had a sizeable number of Visiting Fellows from abroad. A "daughter-group" is now working at the University of Guadalajara/Mexico under the direction of José-Luis Iturrioz. Their newly founded Journal, Función, is devoted to linguistic theory, American Indian Languages, and the philosophy of language. We also have close ties with several research groups working in the fields of adjacent sciences such as the group on psycholinguistics and genetic epistemology at the University of Geneva/Switzerland, formerly directed by Jean Piaget.

Most of our work has been or is still being published in the following series:

1. **akup**

(= Arbeiten des Kölner Universalien-Projekts).
Edited by Hansjakob Seiler. 1973 ff. Köln:
Institut für Sprachwissenschaft.

80 numbers published thus far. In accordance with University regulations these papers are not for sale.

They are distributed to scholars interested, preferably on an exchange basis.

2. LW I - III

Seiler, H. (ed.) 1973-1975. Linguistic Workshop I (= Structura, Vol. 4), II (= Structura, Vol. 8), III (= Structura, Vol. 9). Munich: W. Fink Verlag.

The articles published in LW I - III also appeared as akup 1-15. The series Linguistic Workshop ended with volume III and is followed by akup 16 ff.

3. Language Universals

Seiler, H. (ed.) 1978. Language Universals. Papers from the Conference held at Gummersbach/Cologne, Germany, October 3-8, 1976. (= Tübinger Beiträge zur Linguistik, Vol. 111). Tübingen: Gunter Narr Verlag.

4. LUS

Seiler, H. (ed.) 1982 ff. Language Universals Series. Tübingen: Gunter Narr Verlag.

5 volumes published thus far, vol. 1 in three parts: 1/I, 1/II, 1/III.

In addition, there exists a great number of unpublished papers and manuscripts. A bibliographical guide to UNITYP publications compiled by Claudia Froitzheim and Yoshiko Ono appeared in LUS 5 (1985), 62-67, which is a complete list from the beginnings to 1983 (included). A listing of all the akup titles is found on the back pages of every number. A "bibliographie raisonnée" of all our publications with registers remains a desideratum.

A characteristic feature of UNITYP's activities are the carefully edited extensive minutes of our project meetings (in typescript). These are of invaluable help in our endeavour to constantly reorient and readjust the direction of our research.

UNITYP research is often characterized as being dimensional. The following dimensions were examined and published thus far:[2]

1. NOMINATION (formerly: DESCRIPTIVITY):
   Seiler, LW III (1975) 2-57; Ultan, akup 16, akup 21; Moshinsky, akup 24; Walter, akup 26.

2. CONCOMITANCE: Seiler, FL (1974) 12. 215-247.

3. DETERMINATION: Seiler, Language Universals (1978) 301-28; Heine, Wege zur Universalienforschung (1980)

180-87; U.&B. Kölver, Wege zur Universalienforschung (1980) 392-405.

4. POSSESSION: Seiler, LUS 2 (1983), Studies in Language 7:1 (1983) 89-117; Mosel, akup 44, akup 50.

5. APPREHENSION. Language, Object, and Order: Seiler, LUS 1/III (1986); Seiler-Lehmann, LUS 1/I (1982); Seiler-Stachowiak, LUS 1/II (1982).

6. PARTICIPATION: Seiler, MS (1984), Función III/1 (1989); Seiler-Premper (forthcoming); Seiler (forthcoming); Mosel, akup 58; Brettschneider, akup 59; Drossard, akup 60; Matsubara, akup 60; Mosel, akup 61; Himmelmann, akup 62; Drossard, akup 63; Kölver, akup 63; Drossard, akup 64; Lehmann, akup 64; Premper, akup 66; Broschart, akup 67; Drossard, akup 68; Müller-Bardey, akup 70; Lehmann, akup 71; Drossard, akup 72; Premper, akup 72; Ono, akup 74; Broschart, akup 76; Heide, akup 78.

7. SITUATION: Tense, Aspect, Mood. Premper, MS(1988); Drossard, MS(1988), MS(1989a), MS(1989b). More work in preparation.

8. LOCALIZATION: Ostrowski, akup 55; Kölver, akup 56. More work in preparation.

2. An illustration of the UNITYP approach

In this chapter earlier work by Seiler on the dimension of POSSESSION (Seiler 1983, a) is discussed and summarized. At the end a few illustrative remarks on other dimensions will follow.

2.1. Premises

One of our basic theoretical decisions consisted in the distinction, in principle, between a cognitive-conceptual domain and a linguistic dimension of POSSESSION. The latter encompasses a wide array of linguistic structures differing both in form and in meaning; such differences can be observed both within one and the same language, and cross-linguistically. Such relevant constructions as my father, my nose, my pants, my car, my word seem to be all alike in English. Differences become apparent in transpositions with a verb of possession like to have or to own: (?) I have a father, (?) I have a nose vs. I have a car, I own a car. On the cognitive-conceptual side we also expect variety: My relation to the parts of my body is certainly of a different sort than the relation to my relatives, which again differs from the relation to my house or my car. The differentiation into "inalienable" vs. "alienable" possession is current among ethnologists and linguists

since L. Lévy-Bruhl's famous study on possession in the Melanesian languages (1914:96 ff.). But the distinction is usually taken to be a categorial one. This is an illegitimate reduction which does not stand up against the facts. Within one and the same language, a possessive relation to one and the same object (e.g. a kinsman) can be represented as either "inalienable" or "alienable" (see below, 2.4.2.).

On the side of linguistic structures pertaining to POSSESSION, the favorite way of coping with variety and variability also consisted and still consists in reduction to formal-semantic categories. Transformational grammar has longtime tried to make us believe that all possessive constructions are to be derived from a deep structure configuration with 'to have'; or, on the contrary, that 'to have' is a mere indicator of possession and has no place in the deep structure. Both contentions are equally untenable (Seiler 1983:2 ff.). When "inalienable" possession began to be integrated in generative studies, "inalienable" constructions were assigned to a deep-structural "Dative". This is, again, an unwarranted reduction: There are many ways of expressing "inalienable" vs. "alienable" possession - e.g. pronominal affixes - that have nothing to do with a "Dative" (Seiler, loc.cit.). It has furthermore been proposed that possessive constructions should be derived from or treated

as a subvariety of local expressions - again an illicit reduction. There are certain affinities between possessive and locational expressions, but also some marked differences, which must not be overlooked (Seiler 1983:56 ff.).

We are thus left with a situation where linguistic diversity cannot be reduced in terms of any single category; and where even on the cognitive-conceptual side, POSSESSION cannot be a monolithic notion. Yet, there is this definite feeling that inspite of linguistic diversity and variation there is an invariant which makes it possible for grammarians to apply the term of "possession" to all the constructions cited above, and to many more; and that in spite of notional variety there is an invariant on the cognitive-conceptual side as well.

Our task then, very generally speaking, consists in uncovering the pathways by which variation is linked to invariance, or diversity is linked to unity. We shall consider neither linguistic nor cognitive-conceptual POSSESSION as being categorially given, once and forever. Rather, we shall look upon the construction of the cognitive-conceptual notion of POSSESSION and upon its representation by the means of language as being problems to be solved by the human mind. Keeping in mind our decision not to confound cognitive-conceptual POSSESSION with its linguistic representation - including form and meaning - our approach will

be from two sides: In an abductive move from tentatively defining cognitive-conceptual POSSESSION, and from positing the logically possible operations leading to the construction of such a domain, toward assembling the pertinent data both within a single language and cross-linguistically; and in an inductive move from ordering the data according to similarity and difference and degrees of markedness toward correlating such orderings with the aforementioned operations, which will lead us back toward the cognitive-conceptual.

2.2. Defining the cognitive-conceptual domain

In my monograph (Seiler 1983:4 ff.) I have tentatively defined the domain as a relation of appurtenance between two substances. Substance A, called the POSSESSOR, is prototypically [+animate], more specifically [+human], and still more specifically [+EGO] or close to the speaker. Substance B, called the POSSESSUM, is either [+animate] or [-animate]. It prototypically includes reference to the relationship as a whole, and to the POSSESSOR in particular. Furthermore, the domain can be characterized as bio-cultural. It is the relationship between a human being and his kinsmen, his body parts, his material belongings, his cultural and intellectual products. In a more extended view,

it is the relationship between parts and whole of an organism.

Relational logic distinguishes between external and internal relations (Seiler, op. cit.:6 ff.). An external relation between two terms, A and A', is presented where there is a "third", an "in-between", which is neither A nor A', but which mediates between the two, and thus establishes the relation. In an internal relation there is no "third", no relator that establishes the relation between A and A'. If we want to formalize the idea that 'x is y's father' and we write R(x,y), where R = FATHER, we write an extra symbol, R, for which there is no extra element, since 'x' and 'father' are coreferent. This obscures the fact that 'x' itself, coreferent with 'father', is relational and opens a place for 'y', i.e. the person whose father x is; this, in turn, is possible where x and y are in an intimate relationship that is inherent, that is given, or can be taken for granted.

Accordingly, we can distinguish between inherent vs. established relationship of POSSESSION as being subdomains of the overall domain.

The domain of POSSESSION can be delimited and set off from comparable domains by the following considerations: PARTICIPATION, like POSSESSION, represents a relationship, viz. between an action or process or state and its partici-

pants. However, it does not show any limitations to the bio-cultural sphere. The number of participants can range from zero to many, whereas POSSESSION is a strictly binary relation. LOCALIZATION, like POSSESSION, is a binary relation. But, unlike the latter, it is always mediated by a relator and always includes a centrum deicticum (Ch. Lehmann 1983:154), i.e. "the standpoint which the speaker takes". DETERMINATION narrows down the reference (extension) of an entity as in POSSESSION the reference of a POSSESSUM may be narrowed down by the POSSESSOR; but in the latter domain this is a concomitant aspect, whereas in DETERMINATION it is a basic one. The same holds, vice versa, for the aspect of appurtenance, which is basic for POSSESSION, but concomitant for DETERMINATION.

2.3. Defining mental operations

There are three logically conceivable modes of construing a relationship of POSSESSION:

1. The relationship is inherent, intimate. It is treated as being given, taken for granted. It can simply be pointed out: The indicative mode (indicare = pointing out).

2. The relationship is not inherent, not intimate. It is not taken for granted. It needs to be established by the operation of defining: The predicative mode

(predicating in the sense of defining).

Modes 1. and 2. are correlative and complementary: To the extent that the relationship can simply be pointed out, it needs no defining; to the extent that it is being defined, no pointing is needed.

3. The relationship is neither inherent nor established. Instead, it is likened to some other relationship on the basis of similarity: The iconic mode (operation of imaging). In the case of POSSESSION this would be to liken it to the relationship of local proximity (LOCALIZATION).

What is the logical relation between modes 1. and 2. on the one hand, and mode 3. on the other? There are two possibilities: Either modes 1. and 2. are primary, and mode 3. joins them in superposition, i.e. where the others two neutralize each other; or mode 3. is primary, and its inherent vagueness and imprecision – a <u>simile</u> is always an approximation – is remedied by progressively resorting either to an operation of pointing, or to an operation of defining.

We now turn to discussing POSSESSION under the inductive aspect.

2.4. The dimension

2.4.1. The scale of subdimensions

In accordance with the notional definition of the domain of POSSESSION I have collected and discussed the relevant data from a variety of languages (Seiler 1983: 12-71). They were presented in the following order:

1. Two separate lexical classes of POSSESSUM nouns?

The distinction between intimate (inherent) and non-intimate POSSESSION cannot be reduced to two distinct noun-classes of the lexicon; it must be described in terms of constructions in which these classes of nouns enter. It is true that certain semantic classes prototypically appear in inherent POSSESSION: Kinship, body parts, etc. Even within one such class there may be gradience as to the degree of intimacy, as the following example, taken from L.B. Anderson (1974:1 ff.) shows:

(1) The barber cut

(i)	me on the cheek	? me on the ear	*me in the hair
(ii)	me on my cheek	? me on my ear	*me in my hair
(iii)	Ø Ø my cheek	Ø Ø my ear	Ø Ø my hair

The gradual decrease of intimacy in the relationship between self and the cheek, the ear, and (the) hair,

respectively, is reflected by decreasing acceptability of constructions of these lexical items with personal pronoun plus article or personal pronoun plus possessive pronoun.

2. POSSESSOR and POSSESSUM in juxtaposition (symbolized NN)

This subdimension comprises a wealth of variegated phenomena in the languages of the world. The great diversity is kept under control by analyzing the subdimension as a bundle of interacting parameters. They are exemplified and discussed in the monograph (Seiler 1983:14-33), which will not be repeated here. A few specimens for each parameter must do:

POSSESSOR noun vs. POSSESSOR pronoun:

The two appear to be structurally analogous in English:

(2) (i) his brother like John's brother

(ii) his house like John's house

That the two are treated differently is shown, e.g. in Tigak, a Melanesian Language spoken in New Ireland, Papua New Guinea (Mosel 1980):

(3) (i) na tiga - na 'his brother'
ART brother - his

(ii) na tiga - na i Gamsa 'the brother
ART brother - his POSS.M G. of Gamsa'

(4) (i) ka - na lui 'his house'
POSS.M - his house

(ii) tang lui te Makeo 'the house
ART house POSS.M M. of Makeo'

The formal evidence seems to suggest that 'his brother' is the most immediate relationship, one that need not be specified any further. In contradistinction, 'brother of Gamsa', where POSSESSOR is represented by a noun, more precisely a proper noun, necessitates the mediation of a possessive marker (POSS.M) i. So does the "alienable possessive phrase" (Mosel, l.c.) corresponding to 'his house', but the possessive marker carries the pronominal suffix. Thus, (3)(ii) and (4)(i) seem to be somewhat on a par as to mediacy vs. immediacy. Finally, in (4)(ii) 'the house of Makeo', no pronominal affix may appear, and a different possessive marker alone mediates between the two nouns. This looks like a continuum of intimacy or immediateness with 'his brother' at one end, and 'the house of Makeo' at the other. We furthermore note that the use of special possessive markers (i or te) resembles the technique of connectors (N conn N) which characterizes the subsequent subdimension (see under 3.).

"POSSESSOR deletion":

The POSSESSOR pronoun may not appear at all - or be "deleted", as some grammarians prefer to say - as a sign of

intimate, inherent relationship. This occurs frequently with body part terms in connection with certain verbs, type French

(5) Il a levé le bras lit. 'he raised the arm'
'he raised his arm'

"POSSESSOR obligatory":

This is the mirror image phenomenon to "possessor deletion". It occurs where inherent possession is involved, and is often highlighted as the decisive criterion for "inalienable possession". The categorial statement needs to be relativized. Obligatoriness of POSSESSOR is certainly a salient but not a necessary indicator of inherence.

"Alienable" vs. "inalienable" pronouns:

Many American Indian languages show the well-known phenomenon that the possessive pronouns, generally affixed to the noun, occur in two morphologically more or less distinct series - one for "inalienable", the other for "alienable nouns" (cf. the caveat under 1.). An example from Tunica, a Gulf language, shows this (Seiler, op.cit.:20). What is of particular interest there is the fact that the "alienable" expression - the "alienable" prefix in this case - is derived from, and thus more complex than, the "inalienable" expression. In fact, the two relate to one another as marked ("alienable") vs. unmarked

("inalienable"). It is one and the same relation which characterizes both the parameter of this subdimension and the overall continuum of the dimension (see below 2.4.2.).

Personal hierarchy

In languages where a POSSESSOR personal pronoun is affixed to the POSSESSUM, we find that the different persons do not behave in the same way with regard to "inalienable" vs. "alienable" constructions. I have described in detail a salient case for Cahuilla, a Uto-Aztecan language of Southern California (Seiler 1982) and shall here only briefly summarize the findings: I have studied kinship expressions featuring two pronominal elements, one representing the POSSESSOR, the other being coreferent with the POSSESSUM - the kin term. Translation equivalents in English would be she is my niece, I am her niece, etc. There are altogether seven combinations possible: she-my, thou-my, she-thy, she-her, I-her, I-thy, and thou-her. From the point of view of English all these combinations seem to be parallel. However, the Cahuilla evidence shows us two widely differing types of expression distributed over two converse gradients in a manner to be described presently. The two types can be exemplified as follows:

(6) ʔet - ne - nési 'thou (art) my niece'
P_2 2.SG - P_1 1.SG - niece

P_1 prefixes occur both with nouns and with verbs; with nouns they mark the POSSESSOR, with verbs the ACTOR. P_2 prefixes occur with nouns only, and their function roughly corresponds to that of the English copula 'is'. The P_2 prefix is coreferential with the entity indicated by the stem, thus 'thou' and 'niece' are coreferential in 'thou art my niece'. The second type is:

(7) pe - y - nési - k (a) (t)
OBJ.3.SG - P_2 3.SG. - niece - ORIENTED REL
'she is one who is related to her, the niece'
= 'she is her aunt'

We have an object prefix here (3rd sing.), followed by a subject prefix (3rd sing.), followed by the element for 'niece', followed by a suffix -k or -kat and other variants. This suffix is a nominalizer and a relativizer, and it carries the function of 'oriented relationship', by which I mean that a relationship is being established by showing that it has a point of departure (the subject, 'she') and a goal (the object, 'her', coreferential with the kin term 'niece') toward which the relation extends. In short, (6) represents an inherent, indicative expression, and (7) an establishing, predicative expression, and the latter establishes the relationship by starting "from the other end", as it were, i.e. from the pronoun referring to the reciprocal term 'aunt'. The native speakers chose among the two types

according to the following scheme:

(figure 1)

The meaning of the combinations can be read off by going from right to left, e.g. first line left side 'she is my niece'. Plural is not considered here. Person is additionally symbolized by numbers to make the distance between them more salient. The informants either volunteered or accepted or rejected an expression type for a given combination. We see from the chart that exclusive or near-exclusive use of one vs. the other type coincides with the maximal distance between the persons (two digits). We find a gradient of decreasing exclusivity or increasing tolerance for the other of the two respective types as the distance between the persons becomes smaller. When both are third person, both expression types are acceptable. There is compelling evidence, not to be reproduced here (cf. Seiler 1977:274 ff.), that the POSSESSOR in possessive constructions and the ACTOR in transitive verb constructions behave in an exactly parallel way, and so do the POSSESSUM and the GOAL of the respective constructions. And the two types of expression - inherent vs. establishing - appear in the verbal domain as well, in exactly comparable shape.

The following generalizations can then be derived from

what has been outlined above: The constraints in the choice for one or the other expression type are correlated with a hierarchy of proximity with regard to the speaker. The direct type is chosen when the person of the POSSESSOR is nearer to the speaker than to the person of the POSSESSUM. This is the "natural", the expected instance. It has to be chosen, when the POSSESSOR is identical with the speaker, i.e. 1st person. The inverse type is chosen when the person of the POSSESSUM is nearer to the speaker than the person of the POSSESSOR. It has to be chosen when the POSSESSUM is identical with the speaker, i.e. 1st person. When both persons are third, the Cahuilla has the choice of presenting either the POSSESSOR or the POSSESSUM as being nearer to him and of respectively backgrounding either the POSSESSOR or the POSSESSUM. This is the turning point of the continuum of this parameter. An alternative graphic representation might visualize this even better:

(figure 2)

The continuum exhibits bi-directionality; i.e. it demonstrates the continuous increase vs. decrease of a particular property - represented here by the inherent form, and simultaneously the continuous increase vs. decrease, inverse to the above, of the establishing form. We recognize the two functional principles of inherence/indicativity vs.

establishing/predicativity that can be ascertained for the entire dimension. The hierarchical relationship involved in assertions about acceptability and frequency is that of implication. Looking at the upper part of the curves, i.e. the regions of dominance of one principle over the other we can state: If third person, then also second; if second, then first; or vice versa. We furthermore note that the inherent expression is the unmarked and corresponds to the prototype of this subdimension NN. However, the establishing expression is heavily marked, comprising an object marker and a marker of directionality. In the overall continuum of the dimension such elements make their prototypical appearance much "later", i.e. when approaching dominant predicativity. On the other hand, the Cahuilla establishing form cannot possibly be separated from the inherent one, or else all the generalizations made in the foregoing would be missed. Both form types will therefore have to be ordered together in the subdimension NN. From which we learn that a subdimension in one particular language may cover a range of phenomena that would correspond to a range covered by more than one subdimension in some other language. We shall come back to this point (4.4.).

3. Connectives (symbolized N conn N)

Connectives are often multifunctional: They may occur

in possessive constructions, in determinative constructions, and even in predicative constructions. Examples from Modern Persian, Tsimshian, an American Indian language spoken on the coast of Northern British Columbia, and Tolai, a Micronesian language, are given in the monograph (Seiler 1983:33 ff.). In contradistinction to mere juxtaposition (NN), the connective is a "third" (cf. 2.2.) that mediates between the two Ns representing the two substances. In contradistinction to the subdimension following next, i.e. possessive classifiers, the connective is a rather unspecified mediator.

4. Possessive classifiers (symbolized N class N)

The technique corresponding to this subdimension is found primarily, if not exclusively, in Oceanic languages on the one hand, and in American Indian languages on the other. A comparison between possessive classifier systems in the different languages shows that this technique can vary widely both in its scope and in the extent of predicativity. But in all these cases it brings together reference to properties of the POSSESSOR and to properties of the POSSESSUM, in ways as shown in the following examples from Cahuilla (Seiler 1983:37, Seiler forthcoming a).

Certain semantic domains such as the designations of humans, animals, plants, configurations of nature, etc. are

always represented by absolute expressions, i.e. nominals taking P_2 instead of P_1 (cf. above under 2.1), and lack a corresponding construct (possessed) state. How does a language go about in rendering relationships between man and animals, e.g. "my dog", man and plant or food, etc.? This is where the device of the relational or possessive classifiers comes in.

Its constituents are:

1. the absolute expression referring to the plant, animal, or human being
2. the possessive classifier

They are in an appositive relation. There are about a dozen such classifiers. They can be subdivided into two major groups based on the distinction between animates and inanimates. While the classifiers for inanimates represent a well-analyzable transparent and productive device, there are only two more or less fossilized classifiers for animals. The most important in this domain mediates the relation between humans and animals as pets. It is <u>-ʔaš̌</u> and is found in constructions such as

(8)	né	- ʔaš̌	ʔáwal	lit. 'my pet, the dog',
	P_1 1.SG	- pet	dog	i.e. 'my dog'

Note that the direct collocation between <u>ne-</u> and <u>ʔáwal</u> is not possible. Thus, <u>-ʔaš̌</u> mediates between the personal

pronoun and the absolute noun and thereby establishes the relationship. In this sense it shows an establishing, a predicative component. This is even more apparent through the fact that -ʔaš̌ is directly related to a transitive verb stem appearing, e.g. in

(9) pe - n - ʔáš̌ - qal
OBJ.3.SG - P_1 1.SG - own - DUR
'I am owning it (as a pet)'

Once more we observe that in a particular language a parameter of a subdimension is "stretched" to include phenomena - affinity with verb in our case - that make their prototypical appearance much later in the overall dimension. It seems to be a typological fact that if a language shows possessive classifiers, it lacks possessive verbs. This is confirmed by evidence from other language families (see below chap. 5).

On the other hand, expressions such as (8) also include the inherence principle represented by the use of an inherently possessed noun construed with a P_1 prefix. We are thus confronted with a device which, on the dimension, is neither at the extreme pole of indicativity/inherence, nor at the extreme pole of predicativity/establishing.

Classifiers for inanimates mediate a very precise relation between man and trees, plants, their fruits, etc. The structure of these classifier phrases is as follows:

(10) ne - kíʔiw - ʔa méñikiš
P_1 1.SG - CLF: waiting for - ABSTR mesquite beans
lit. 'my waiting for mesquite beans'
i.e. 'my claim, the mesquite beans'

The classifier -kíʔiw- corresponds with the regular verb form in

(11) pe - n - kíʔiw - qal
OBJ.3.SG - P_1 1.SG - wait - DUR
'I am waiting for it'

"Mesquite beans" can be construed with more than one classifier. One of them is -ʔáy- in

(12) ne - ʔáy - ʔa méñikiš
P_1 1.SG - CLF: plucking - ABSTR mesquite beans
lit. 'my plucking the mesquite beans'
i.e. 'my (fresh) mesquite beans (on the tree)'

When a lexical item like 'mesquite beans' can be classified in several different ways, this is called temporary classification. (Seiler 1986:100). In this case special information is added that goes beyond mere classification and portrays certain aspects under which the POSSESSUM is to be considered. This is more predicative, more establishing than inherent classification which we find in the animals class where one lexical item goes with only one classifier.

Once more we detect in a parameter of a subdimension gradience according to the two converse principles that corresponds to the gradience of the very same principles in the overall dimension.

5. Case marking (symbolized N case N)

Cases are means of expression that always contract some relation with the predicate or main verb. There is no exclusively adnominal case. This is true even for the genitive. Insofar as case forms contribute to the expression of POSSESSION, it is always by intermediacy of the verb. The ties between the case form and the verb may be stronger or weaker on a gradient scale. If they are strong, the case form will contribute little to the marking of POSSESSION, if they are weak, the contribution may be more important.

In my monograph (Seiler 1983:39 ff.) I have discussed genitive, dative, instrumental, and double case constructions in Indo-European languages in the light of inherent vs. establishing POSSESSION. I shall confine myself here to briefly mention one further parameter, which concerns the affinities between subject, object, and POSSESSION (see also Seiler 1983a). One aspect of this problem pertains to the juxtaposing (NN) subdimension discussed under 2: When only pronouns are involved and when there is partial or total identity between possessive and object pronominal elements vs. partial or complete identity between possessive and subject pronominal elements.

One other aspect, however, pertains to case marking. Here it is known as "possessor promotion", a phenomenon described in detail by L. Hyman (1977:101 ff.) for Haya, and

found in most, if not all, other Bantu languages. According to Hyman's presentation, a POSSESSOR is "promoted" into a direct object if the verb is transitive, and he is "promoted" into subject position, if the verb is intransitive. Examples are from Hyman (l.c.).

(13) ŋ - ka - hénd' ómwáán' ómukôno
I - P_3 - break child arm
lit. 'I broke the child the arm'
= 'I broke the child's arm'

(14) (?) ŋ - ka - hénd' ómukôno gw'ómwáána
arm of child
'I broke the (detached) arm of the child'

(15) ŋ - ka - hénd' éŋkoni y'ómwáána
stick of child
'I broke the stick of the child'

(16) * ŋ - ka - hénd' ómwáán' énkoni
child stick
(lit. 'I broke the child the stick')

(17) ómwáán' a - ka - hénd - w' ómukôno
child he - P_3 - break - PASS arm
lit. 'The child was broken the arm'
= 'the child's arm was broken'

(18) ŋ - ka - mu - hénd' ómukôno
I - P_3 - him - break arm
lit. 'I broke him arm'
= 'I broke his arm'

As (17) shows, the POSSESSOR satisfies a criterion for direct object status inasmuch as it is accessible to subjectivization in the passive.

What causes POSSESSOR promotion to object position is a POSSESSOR who is experiencer and who finds a part of himself affected by an action or process. If the part is affected, the POSSESSOR as a whole is affected. The whole is even more affected than the part, and thus, the part, the POSSESSUM, is "demoted" to a "secondary" or "oblique" object of the verb, perhaps even to a prepositional phrase with zero preposition.

The role of experiencer is also decisive in subject promotion (Hyman, l.c.):

(19) ómwáána n - aa - sháásh' ómútwe
child PR - he - ache head
lit. 'The child is aching the head'
= 'the child has a headache'

(20)(??) ómútwe gw'ómwáána ni - gu - sháásh - a
head of child PR - it - ache
'the head of the child is aching'

The common denominator has to do with the contrast between inherent vs. established POSSESSION, and also between stative, self-oriented, given POSSESSION and active, acquired POSSESSION. Inherent POSSESSION relates to an inactive 'self' or to situations where 'self' is at the same time AGENT and EXPERIENCER of a process. Compare the French examples

(21) Il m'a cassé le bras
he me has broken the arm 'he broke my arm'

(22) Je me suis cassé le bras
I me am broken the arm 'I broke my arm'

6. Predicatoid structures (symbolized N Pr.id N)[3]

This subdimension comprises a number of apparently unrelated parameters, which, however, mostly concur and are intimately linked to one another in the respective constructions. They all contribute to further establishing the possessive relation, and they are all on the borderline between nominal and predicative syntagms. Furthermore, they are all more or less closely related to localization. They are: 1) Word order; 2) Location; 3) Existence; 4) Directionality; 5) Definiteness.

1) Word order is an iconic spatial-local means of representation. Preference for the order POSSESSOR-POSSESSUM results from associating the former with "topic", the latter with "comment". 2) Location: It has been suggested by E. Clark (1978:91 ff.) that "the object possessed is located in space just as the object designed in existential or locative sentences. In possessive constructions, the place happens to be an animate being, such that a [+animate] Loc becomes a Possessor." This we would accept for the subdimension under consideration, but certainly not for the entire domain of POSSESSION. 3) Existence: We agree with E. Clark's assertion (1978:89) that to be (i.e. 'exist') normally means 'to

be located in space'. 4) Directionality: This is the dynamic component added to location. 5) Definiteness: Languages with definite and indefinite articles like English show the following distribution:

(23)(i) I have a book (i') I have the book

(ii) The book belongs to me (ii') A book belongs to me

(iii) The book is mine (iii') A book is mine

The primed sentences are only acceptable under quite restricted conditions. This shows how a possessive relationship is established by moving from a point of departure toward a goal in utilizing textual features such as "given" vs. "new" or "identifiable" vs. "not identifiable" or "definite" vs. "indefinite".

If it can be accepted that all or most of the parameters 1)-5) show affinities with localization, we may say that the technique of this subdimension is predominantly iconic. It likens POSSESSION with LOCALIZATION on the grounds of similarities as just described, what strikes the observer - but what is in perfect agreement with the iconic principle - is the "multiple choice situation" (see Seiler 1988:13; and below, 4.8.). Whereas in the subdimensions studied thus far the different parameters show very definite morpho-syntactic affinities, this is not the case here: Word order is a parameter that is superposed upon the others; existence may

be represented by a verb; definiteness is represented by an article and interacts with verbs, etc. This is the situation of indeterminacy and multiple choice typical for the position of a turning point.

7. Verbs of possession (symbolized N V N)

Verbs are the kernels of predicates. The subdimension of verbs of possession includes maximal predicativity. As with the other subdimensions, the one under consideration here is a bundling of parameters of varation resulting in gradient predicativity vs. indicativity.

One parameter concerns the status of the verb as being marginal vs. fullfledged. The so-called copula, for one, is often represented by zero, especially in the present tense, e.g. in Russian. The existential verb and the equational 'to be' are most often defective as compared to the paradigms of "full verbs". For equivalents of 'to have' this also holds, but to a lesser degree. As we then proceed to the equivalents of 'belonging', 'holding', 'seizing', 'grasping', we increasingly find verbs of full status.

A second parameter concerns selectional restrictions. An ordinary two-place predicate like to beat normally requires an agent argument that is [+animate]. The above-mentioned "auxiliaries", on the other hand, do not show any such restrictions. E.g., for any conceivable argument it may

be asserted that it EXISTS. In some previous publications (Seiler 1977:256 ff.) I have introduced the notion of logical predicates (e.g. EXISTS, APPLIES, etc.) as contrasted with semantic predicates (e.g. beat, sleep, etc.). The distinction between the two is, again, not a categorial one, but of gradient nature. Selectional restrictions between verb and noun(s) become increasingly stronger as we move on from 'to be' to 'to have' and 'to hold, seize, grasp', etc. Third parameter: If logical predicates exert a low selectional restriction with regard to the noun(s), this does not mean that no restrictions occur in these expressions. In such cases the restrictive force emanates from one of the nouns and extends to the other noun. Hence

(24) Judy is a waitress

is acceptable, but

(25) * The house is a waitress

(26) * The waitress is a house

are deviant. The selective force extending from a verb to a noun seems to be in inverse proportion to the selective force extending from a noun to a noun. If the restrictions are rather between noun and noun and if the construction is possessive, we are presented with a predominantly inherent possessive relation. This is borne out by the so-called possessive substantives (see Ultan 1978:27 f.), type

(27) (i) x is John's

(ii) x is mine, yours, his

Preferably pronominal forms (usually 1st and 2nd person) and proper nouns or designations of persons are admitted as POSSESSORS, not, e.g., inanimate nouns as in

(28) * The garden is the house's

It is the intimate POSSESSION of self or person; and it is this parameter that constitutes the link between the last subdimension of POSSESSION, and the first, viz. NN. This would mean that a geometricized representation of the dimension would have the shape of a circle or loop instead of a straight line (on this see below chap. 4.2.). The more a verb contributes to establishing a possessive relation, the less it is compatible with POSSESSUM nouns that predominantly occur in "inalienable" constructions. A comparison between the German verbs haben 'to have', besitzen 'to possess', gehören 'to belong', and such POSSESSUM nouns as Vater 'father', Sohn 'son', Kopf 'head', Haar 'hair', Intelligenz 'intelligence', Hose 'pants', Haus 'house' will bear this out:

(29)

	Vater	Sohn	Kopf	Haar	Intelligenz	Hose	Haus
haben	–	+	+	+	+	+	+
besitzen	–	–	?	+	+	+	+
gehören	–	–	–	–	–	+	+

The table shows the scalar ordering of verbs of possession, which can be corroborated even further by showing that the verbs are increasingly specialized and restricted as to context (Seiler 1983:64 f.). Thus, a verb like gehören is marked vs. haben unmarked.

2.4.2. Ordering within the dimension

We are now in the position to propose a possible geometricized representation of the dimension of POSSESSION:

(figure 3)

The symbolizations are as explained in the corresponding paragraphs above. The intended asymptotic shape of the two converse curves should convey the idea that there are no absolute, categorial maxima and minima, and furthermore the possibility that the ends meet (loop) (cf. preceding section and chap. 4.2.).

Indicativity and predicativity are omnipresent (solid line). They represent the obligatory character of the grammar of every language. Iconicity may be present everywhere, too. However, it is not obligatory (dotted line). It may have its preferential peak at the turning point (T.P.).

The evidence for this particular kind of ordering of the subdimensions within the dimension can be gathered from the foregoing discussion of the data. The essential points

may be summarized as follows:

1. The dimension altogether represents a gradual unfolding of the cognitive-conceptional idea of POSSESSION. Note that the linguistic structures assembled and assigned to subdimensions 1-7 differ both in form and in meaning. They nevertheless belong together into the tightly organized whole of the dimension. One indication for this are the numerous instances of similarity and close affinity of adjacent positions. This allows us to formulate the following empirical hypothesis: Structures from adjacent subdimensions are susceptible for being substitutable for one another. Relevant instances may be encountered, e.g. in the neighbourhood between N case N (5) and N Pr.id N (6) - both as localizations; N conn N (3) and N class N (4) - both as mediators; N Pr.id N (6) and N V N (7) - both as verbs 'to be'; etc.

2. A further aspect of the ordering is the amount of information that the structures convey regarding the cognitive-conceptual content of POSSESSION. A measure for this can be gained from the number of contrasts into which the structures enter: It is relatively small in NN (2) - not to speak of Lex N (1). It is highest in N V N (7). Here we may have, within one and the same language, several verbs of possession, each of which carrying distinctions of person,

number, tense, aspect, mood. It is true that NN (2) may convey more contrasts than, say, N conn N (3) in those cases where one N in (2) is a pronoun. But then, we must take into account that NN (2) is not only negatively marked by low predicativity, but positively so by high indicativity. High indicativity means high preference for pragmatic factors such as reference to speaker, EGO, and speech act; reference to situational or verbal context, and the like.

3. Another aspect in support of the ordering - not necessarily independent of the foregoing ones - is markedness. Looking at the entities that mediate between N and N, we may say that each position going from left to right is more marked than the preceding ones. This may eventually be formulated as implicational relationships, where positions to the right imply those to the left. It would have to be tested further within single languages. At the beginning of this chapter (2.1.) we noted that in English my father, my nose, my pants, my car, my word (NN) are all likewise possible, but not (?) I have a father, (?) I have a nose, vs. I have a car.

4. Still one further aspect is grammaticalization. As Ch. Lehmann has shown (1987), grammaticalization is characterized both formally and semantically. On the formal side, increasing grammaticalization is characterized by an

increase in obligatoriness of the constituent parts of the construction; the propensity of the constituent elements to form closed sets (paradigms), and to form constructions of lower morphological-syntactic constituent level. On the semantic side, we find the propensity of constituent parts to become semantically empty; their lack of variation; and their limitation of contrasts. The dimension with this proposed ordering of subdimensions exhibits these very characteristics where NN is most, and N V N least grammaticalized.

2.4.3. Delimiting the dimension

In problems of delimiting the dimension the above-described approach from two sides (2.1.) is indispensable: From a tentatively defined cognitive-conceptual POSSESSION to the data - and from the latter via their ordering back to the cognitive concept. Let us take the example of abstract nouns (cf. Seiler 1983:51 ff.): Does

(30) the destruction of the city

belong to the dimension of POSSESSION in the same sense as

(31) the streets of the city

or

(32) the roof of the house ?

From our overall approach we can already expect that a strictly categorial yes/no answer would distort the facts

and that a gradient solution must be envisaged.

Consider the following examples from Latin:

(33) tolerantia frigor-is 'the endurance of cold'
endure-ABSTR cold -GEN

is only possible on the basis of

(34) toler -are frigus 'to endure cold'
endure-INF cold:NOM/ACC

And likewise for intransitive verbs

(35) adven -tus consul-is 'the arrival of the
arrive-ABSTR consul-GEN consul'

on the basis of

(36) consul adven -it 'the consul arrives'
consul:NOM arrive-3.SG

As E. Benveniste in his pioneering article on the Latin Genitive has shown (1962/6:140 ff.), the genitive transposes the object case (accusative) in constructions with abstract nouns derived from transitive verbs, and it transposes the subject case (nominative) with abstract nouns derived from intransitive verbs. The relationship between the two nominals does not seem to differ in any sense from the relationship as contracted between the finite verb and its respective arguments. This, however, would be one of the central functions within the dimension of PARTICIPATION (Seiler 1984) - the other central function being assertion (predication). But precisely this latter function is absent in the above-cited constructions with abstract nouns.

On the other hand, abstract nouns pertain to the subdimension of ABSTRACTION of the overall dimension of APPREHENSION (Seiler 1986:26 ff.), where actions and processes may be treated as if they were things - hence in some sense we do have a relation between two substances represented by two nominals in abstract plus genitive constructions. Moreover, there is a notion that constitutes a link between possessive and verbal relations: the notion of control. It is the control which the POSSESSOR exerts in non-inherent possessive relations with regard to the acquisition or selection of the POSSESSUM; and it is the control which an AGENT exerts with respect to his ACTION. Finally, there are the well-known cases of indeterminacy and ambivalence between a "genitivus subjectivus" and a "genitivus objectivus" interpretation. In constructions with a finite verb such indeterminacies as to who is the agent and who is the patient are altogether uncommon - with some notable exceptions, e.g. "labile verbs". However, in nominalizations we do find them. Compare the Latin rhetorician's subtle remark

(37) metus hostium recte dicitur, et cum timent hostes et cum timentur
(Gellius 9.12.13)

'metus hostium ("the fear of the enemies") is an appropriate expression both when the enemies are in fear and when they are being feared'

Ambivalence between subject (agent) and object (patient)

identification is quite characteristic for POSSESSION (Seiler 1989:45 ff.) apart from the subdomain under consideration here. The conclusion then would be that abstract noun plus genitive constructions do share some properties with POSSESSION. On the other hand, as we have seen, it also shares properties with PARTICIPATION and with APPREHENSION.

There is evidently no categorial solution to the dilemma. Adhesion of a particular construction such as abstract noun plus genitive to more than one domain is nothing uncommon. We shall call this "plurifunctionality". Each instance would have to be examined according to the different possible dimensional contexts. We might then say, e.g. that the destruction of the city (29) belongs both to APPREHENSION and to PARTICIPATION rather than to POSSESSION.

2.4.4. Delimiting the subdimension

As the same three functional principles of indicativity, predicativity, and iconicity are instrumental in structuring the subdimensions it may be expected that the same problems of delimitation will arise and that the same non-categorial solutions must be looked for.

Let us return to subdimension 7 (N V N), specifically the chart in (29), and examine the following German example:

(38) Ich habe einen Schnupfen
I have a cold

Does it belong to subdimension 7 (N V N)?

The compatibility with other verbs of possession is as follows:

(39) (i) * Ich besitze einen Schnupfen
I own a cold

(ii) * Der Schnupfen gehört mir
the cold belongs to me

In the framework of the scale in (29) Schnupfen would behave like Sohn 'son' or Kopf 'head' and occupy the corresponding position in the succession of object nouns. But this would result in a very unnatural scaling; for in contrast to Sohn or Kopf, Schnupfen contracts a decidedly transitory, non-inherent relationship to EGO. Moreover, and independently, the following examples show that (38) forms part of a different syntactic paradigm:

(40) (i) Ich habe Schnupfen 'I have a cold'
I have cold

(ii) Ich habe den Schnupfen 'I have a cold'
I have the cold

(iii) * Ich habe Sohn
I have son

(iv) * Ich habe den Sohn
I have the son

Conclusion: (38) together with (40) would be altogether alien to the subdimension N V N and therewith to the dimension of POSSESSION.

2.5. A bird's-eye view on other dimensions

APPREHENSION (Seiler-Lehmann 1982; Seiler-Stachowiak 1982; Seiler 1986) is the dimension that corresponds to the cognitive-conceptual domain of the object, the "thing", and to the mental operation of construing the notion of "thing". The dimension embraces the following range of subdimensions (techniques) in the following order:

ABSTRACTION, COLLECTION, MASS and MEASURE.
CLASSIFICATION by VERB, CLASSIFICATION by ARTICLE,
NUMERAL CLASSIFICATION.
NOUN CLASS AGREEMENT, AGREEMENT in GENDER and NUMBER.
NAMEGIVING.

The range of phenomena to be ordered in this dimension and in the respective subdimensions is wide. One critic (Comrie 1985:462) thought that "for several contributions, and this includes some that are excellent papers in their own right, the only relation seems to be that the topic of discussion is one of the phenomena identified by Seiler as one of the techniques within APPREHENSION." However, the comprehensive presentation of the closing volume (Seiler 1986) should dispel any further doubts that the dimension represents an organic whole, tightly organized by a great number of interrelations between the various subdimensions or techniques. The dimension is well founded under the

cognitive-conceptual aspect on the grounds of its corresponding to the domain of the "thing" as that which is in systematic interaction (a) with quantification, (b) with referencing, (c) with predication. It is well founded under the morpho-syntactic aspect on the grounds of relations of adjacency (adjacent techniques sharing properties and being partly substitutable for one another), of markedness (increase of predicativity corresponding to increase of markedness), and of pragmaticity (increase of indicativity corresponding to greater openness to pragmatic factors). A great number of typological as well as diachronic predictions can be made within this framework.

PARTICIPATION (Seiler 1984, Seiler-Premper forthcoming, Seiler forthcoming) is the dimension that corresponds to the cognitive-conceptual domain of the relation between PARTICIPANTS and that which is participated in: the PARTICIPATUM - and to ASSERTION ("challengeability" and "aboutness"). While the latter aspect is particularly salient in the pragmatically highly marked and morpho-syntactically minimally marked subdimension called POSITING PARTICIPATION (e.g. nominal clauses), there is a gradual unfolding of the relation between PARTICIPANTS and PARTICIPATUM as the dimension proceeds from PARTICIPANTS/PARTICIPATUM distinction (Noun - Verb) over TRANSIENCE (Transitivity) to COMPLEX PARTICIPATA (complex sentences).

NUMERATION (Seiler 1989) is the dimension which corresponds to the cognitive-conceptual domain of counting. One aspect of the architecture of this domain consists in continuity: the operation of recursively adding 1. On the purely linguistic side it turned out that the three functional principles are of considerable value in the task of explaining numerous seemingly aberrant or bizarre phenomena in the sequence of cardinal numerals in the diverse languages. Thus, indicativity manifests itself in the gestures accompanying the low numerals: deictic, holistic representation often correlates negatively with analytic definition. Predicativity, on the other hand, precisely corresponds to the definitory principle which we find in numerals represented by addition, subtraction, multiplication, or division. Iconic representation is characteristic for "bases" (10, 100, 1000 in English, 20 in Welsh, 5 in many African languages). Iconicity being based on similarity and imaging often entails indeterminacy, or plurivalence: hundred with values 100 or 120 (so-called "long hundred" in the Germanic languages), Danish tyve with values 10 or 20, etc.

3. Basic thoughts

3.1. Aims

It seems to be of primary importance that one states

one's goals: Why should we engage in language universals research and language typology? What do we want to explain?

It is a fact that, although languages differ significantly and considerably, indeed, no one would deny that they have something in common; how else could they be labelled 'language'? – There is obviously unity among them, no matter how vaguely felt and for what reasons: Scientific, practical, moral, etc. Neither diversity *per se* nor unity *per se* is what we want to explain. There is no reason whatsoever to consider either one of them as primary, and the other as derived. What we do want to explain is "equivalence in difference" – cf. our motto – which manifests itself, among others, in the translatability from one language to another, the learnability of any language, language change – which all presuppose that speakers intuitively find their way from diversity to unity. This is a highly salient property which deserves to be brought into our consciousness. Generally then, our basic goal is to explain the way in which language-specific facts are connected with a unitarian concept of language – "die Sprache" – "le langage".

The UNITYP framework is isomorphic with our conception of language (see below, chap. 7). The foremost notions are those of **operationality** and **processuality**, as against the conception of language being a "formal" or "abstract

object", a thing. This echoes, of course, the famous Humboldtian dictum of language not as a product (érgon), but rather an activity (enérgeia) (W. von Humboldt 1836:148). The main endeavour of UNITYP thus far has been to firmly substantiate the view that the essence of language is the process, and not the thing. This means that the spoken or written word is considered as the output, the end product, the result (cf. Benveniste 1952/1966:117) of mental operations, which we will have to reconstruct on the basis of the data - as manifold and variegated data as possible. Mental operations is thus a key concept, and it is a composite of three closely related and intertwined aspects: The aspects of "what?", "how?", and "what for?". It seems natural to take up the latter first; for if the essence of language is an activity, we must know the purposes served by such an activity. Our approach takes the **teleonomic** character of language as a goal-directed activity into account. In a first approximation it can be said that the goal has two facets: 1. achieving cognition, 2. representing cognition - both by means of a semiotic system. Language is thus our primary means of thinking and of achieving cognitive insight, and it is at the same time the means for representing such insight. Now to the "what?" and the "how?" - which are as intimately connected with one another as the two sides of a coin. Our most fundamental concept here is

function. We shall try to answer the above questions by a detailed study of this notion under its various aspects as they appear in the UNITYP framework.

3.2. Function

We begin with an "iconic", geometricized representation, which modifies and thus replaces earlier such representations (e.g. in Seiler 1986:14):

(figure 4)

Generally speaking, function is a formal notion involving an operation that relates an invariant to its appropriate variants: f(x) = a, where f is the invariant, x is a variant, and a is the value of the function.

F_1 is the function that relates a particular cognitive-conceptual domain C, e.g. POSSESSION, to its appropriate subdomains, e.g. CLASSIFIED POSSESSION. Linguistically, the cognitive-conceptual domain is represented by the dimension C with its subdimensions + parameters corresponding to the subdomains. Dimensions, subdimensions and parameters are constituted by three operational/functional principles: indicativity, iconicity, predicativity. These are options to be chosen by the speaker/hearer for the purpose of construing and representing cognitive-conceptual POSSESSION. As we have seen in our illustrative treatment, the three

operational/functional principles do not work in disjunction; they are copresent everywhere. The option or choice of the speaker/hearer, then, consists in picking the appropriate blend between the three principles that would correspond to the way in which he wants to represent POSSESSION - e.g. as classified. Thus, the three principles and their blend are options, i.e. variants$_1$ in relation to the invariant$_1$, the cognitive-conceptual domain, within function F_1. This function tells us about the "what?", i.e. "what is represented?".

F_2 is the function that relates a particular blend of the three operational/functional principles, which constitutes a particular subdimension, e.g. possessive classifiers, to the language-specific structures, e.g. possessive classifiers in Cahuilla. Here the three principles in their particular blend as determined by F_1 act as the invariants$_2$ vis-à-vis the language-specific structures as their variants$_2$. Function F_2 tells us about the "how?", i.e. "how does linguistic variation function?"[4]

F_1 and F_2 are inseparable, complementary, and cannot be reduced one to the other. Their complementarity constitutes the mediating instance that allows us to go from cognitive concepts to linguistic structures, and back again to concepts.

Indicativity, iconicity, and predicativity are the three operational/functional principles and are universals. This is in accordance with our general tenet that universality is not in substance (certain elements, features, constructions) but in processes and operations. Indicativity and predicativity are in a converse relationship to one another: The more predicative a linguistic structure is - i.e. the more explicit with regard to an intended concept - the less indicative - i.e. the less deictic, discourse-related - and vice versa. Iconicity is the principle outside of this converse relationship. It may interact with the others two at every stage of the dimension; but it has a preferential peak at the "turning point" (T.P.), where the others two are about equal in force and thus neutralize each other. The thus interacting three principles determine a continuous ordering of language data - both individual language and cross-linguistic - in the ways visualized in figures 2 and 3 (above 2.4.1, 2.4.2.).

Our scheme in fig. 4 includes two more functions: F_{α} and F_{*}.

F_{α} relates linguistic signs - the building blocks of linguistic structures - as invariant$_{\alpha}$ to their contextual variants$_{\alpha}$. This is the sign function as studied by structural and semiotic linguistics. F_{*} relates a cognitive concept along with other related concepts as variants$_{*}$ to a

superordinated invariant$_{\aleph}$. The operation involved here is the construction of new and more penetrating concepts out of already existing ones.

All in all, fig. 4 visualizes a system of operational processes that are open-ended on both extremes: to the left, on the side of the linguistic sign, where signs may change, and new signs may be put to use in the function F_{Σ}; to the right, where a cognitive-conceptual domain is viewed as being in permanent construction. This would include both subliminal, subconscious and fully conscious, scientific construction of new concepts.

3.3. The twofold approach

Fig. 4 depicts an operational dynamics actually followed by speakers and hearers. It is suggested that the speaker/hearer can follow a path leading from cognitive-conceptual domains via their subdomains to their representations in the different languages. It is also followed by the linguist. The move is abductive, i.e. by hypothesis and subsequent testing. It is the onomasiological approach. It consists in positing concepts. They are not derived in any direct way from empirical generalization. Their positing is tentative and subject to revision. In the sense that such positing is applied in the grammatical description of any language, it may be said to have

universal status. Note that the concepts themselves are not entities fixed once and forever; their character of plasticity enables us to indefinitely redefine and differentiate them.

Fig. 4 also suggests that speakers/hearers can follow the opposite path, leading from structural properties of individual languages to the cognitive concepts which they represent. This is the semasiological approach. It is viable in spite of the fact that the meanings of the comparable lexemes and structural properties in the languages compared are not identical. They are language-specific, not universal.

The two opposite pathways are complementary. Their complementarity is vehiculed by the intervening mediating instance of the universal functional principles which structure the operational dimensions. To merely posit cognitive concepts would result in speculation. To merely proceed by inductive generalization would never lead us to the underlying concepts. It is the joint approach in these two converse directions that leads to insight into the interrelation between thought and language.

Surely, with this we are not going to say that the initial positions in this approach from two sides are equally available for inspection and detailed description: There is a clear asymmetry in favour of the linguistic data

in their considerable diversity from the languages of the world, which are open to observation. Cognitive concepts, on the other hand, are not observed, but are posited and/or construed. But precisely because there is this asymmetry, we need the mediating instance of the dimensions and subdimensions with their three functional principles of organization. Once their logical necessity is theoretically acknowledged, we find strong empirical support for each of them, which can be tabulated in fig. 5 below. The chart highlights three cardinal points on a dimension (or subdimension): Maximally dominant indicativity, a peak of iconicity at the turning point (T.P.), and maximally dominant predicativity.[5]

(figure 5)

We are thus presented with three bundles of correlated properties pertaining to lexicon, grammar, and pragmatics.

3.4. Language and cognition

This is a follow-up of relevant discussions in the preceding section.

Any work in LUR and LTYP involves the comparison of languages. Any comparison presupposes a basis of comparison, a tertium comparationis. What is the tertium comparationis that allows us to compare languages with one another?

An initial response, still entertained in some quarters, would be that the basis of comparison between languages is the meaning of their respective words and sentences, in short: semantics. However, it has been amply demonstrated by others[6] that the meanings of words and grammatical elements and constructions are language-specific and differ from one language to another, notwithstanding partial overlaps. It is instructive, in this respect to watch the professional practitioner of language comparison, i.e. the translator at work. Cognitive content emanates not from words or constructions and their meanings but from texts. Every translator who knows the respective source and target language(s) has the faculty to find his way from the meanings of words and grammar to the underlying conceptual content of the texts in which they occur. In contradistinction to the practical translator and even to the ordinary native speaker who discovers conceptual cognitive content intuitively, the linguist should endeavour to bring this content to the level of consciousness. This undertaking is fraught with a number of paradoxies.

First paradox: Although cognitive content can be intuitively arrived at, opinions may differ widely as to its exact definition. In my presentation of the dimension of numeration (Seiler 1989:3 ff.) I referred to Russell and Whitehead's definition of number and to J. Piaget's

criticism and alternative definition (Piaget 1961:277 ff.). Does any of these definitions represent the "real" cognitive-conceptual content of numeration? From the study of the dimension we have learned that the content of numbers can be processually construed and linguistically represented (a) instantaneously, indicatively, by pointing; (b) by means of imagery, iconicly; (c) by defining, i.e. by arithmetical operations. I have also shown how these three modes interact and concur in the construction of numbers. In this way cognition is viewed as being itself subject to a constant process of construction; and language is viewed as the means of 1) implementing this process, and 2) at the same time representing its results.

Second paradox: The notion of operation and process is unthinkable without the notion of entities on which to operate. The human mind has a deep-seated tendency toward reification; it cannot work without assuming entities. We know the operations involved, but where are the conceptual entities? Do we - in the case of numeration - have to await the outcome of further mathematical thinking or of further experiments in Genetic epistemology to settle the question? I think not. In an earlier summarizing statement (Seiler 1985a:10) I have proposed a hermeneutic circle as a model for a recursive move of our thinking from concepts to linguistic representation, and back to concepts. I now suggest that the

move is more in a spiral than in a closed circle. Completing one turn after another may lead to an ever refined definition of conceptual substance. It would be a spurious hope for the linguist to find support for his analysis in the results from other sciences. But once he has completed his job it would be most enlightening to compare his findings with those of neighbouring disciplines.

4. Basic notions

The following terms and notions recur in our preceding chapters:

Scale, continuum, parameter, subdimension/technique, prototype, categories, operational/functional principles, dimension, indicativity-predicativity-iconicity, pragmatics, turning point, grammaticalization, function, variants-invariant, tertium comparationis, domain-subdomain.

While the content of some of these terms may be fairly well understood from their use in the preceding chapters, it is certainly not claimed that they have been exhaustively defined and fully operationalized. This is also not the purpose of the following selection. As some of the terms and notions like that of function have received extensive treatment in the foregoing, we feel that the following ones would need further comment and discussion. Some new terms and functions will also be introduced.

1) Scale. The term means "measuring staff" or "yardstick". It implies the measuring of regular, invariable intervals and is the measure that can be applied in the analysis of a certain range of phenomena. An example was shown above (2.4.1.) in the scale of subdimensions of the dimension of POSSESSION, and again in the scale of the parameter "personal hierarchy" of subdimension NN, where 3rd person implied 2nd, and 2nd implied 1st. It is not necessary that the steps on the scale be ascertainable by means of a numerical scale. The person indicators 3rd vs. 2nd vs. 1st person are outwardly numerical; the numbers conceal the well-known fact that the three "persons" do not behave strictly proportionally to one another. But it is just as well known that, in a considerable number of ways, the three do interact in a hierarchically graduated fashion - e.g. in the so-called "animacy hierarchy" of so-called inverse inflection; also with respect to markedness. The scale involves two poles, one being maximally marked, the other maximally unmarked.

2) Continuum (see Seiler 1985b:14 ff.; 1986:24). While a scale, a "yardstick", is a purely static instrument, a continuum has properties that come up to the phenomena themselves: directionality (dynamics), binarity, complementarity, parallelism. Note that the continuum in the

UNITYP sense encompasses two complementary properties forming two converse scales or gradients. This derives from its functional aspect: It is the instrument in the construction and representation of cognitive-conceptual domains and subdomains. Since there are logically three options in the task of fulfilling this purpose: indicativity, predicativity, iconicity, and the former two are in converse relationship to one another, it follows that the continuum is organized according to these two gradients. A further consequence is that the continuum exhibits a turning point; this is the preferential peak for the third option: iconicity (see below).

Dimensions, subdimensions, and parameters are continua. The continuum is a construct which makes observations about phenomena possible, especially observations regarding the relationship of linguistic structures to one another. It may be interpreted as a program or operational plan. The ordering within this plan can be visualized by topological neighbourhood: Linguistic structures from adjacent positions share more properties than structures from distant positions. The two gradient curves are open-ended on both sides, i.e. there are no absolute maxima or minima. This leaves open the possibility that the ends meet in the figure of a Möbius strip - a possibility for which there is empirical evidence in a number of well-defined cases (Seiler

1986:137 ff.). The analogy between the linguistic continuum and the so-called circle of fifths in music has also been pointed out (Seiler ibid.).

3) Parameter. The lowest ranking continuum. It corresponds to "property" on the cognitive-conceptual side. In subdimension 7 (N V N) of POSSESSION (2.4.2.) three parameters were identified. One pole of the parameter shows dominant indicativity and is unmarked for predicativity, i.e. morpho-syntactically. Parameters meet or bundle in a subdimension/technique (see below) in their morpho-syntactically unmarked realizations.

The morpho-syntactic gradient of the parameter has been compared to the distinctive features in phonology, (Seiler 1989:4). Both are principia comparationis, both are bipolar, one pole carrying the mark, the other lacking it. The parameter differs from the phonological distinctive feature in that the former, but not the latter, normally shows intermediate steps. There is a finite number of parameters as there is a finite number of distinctive features in phonology.

4) Subdimension/technique. In former UNITYP publications the term of "technique" prevailed. I should now propose a further differentiation: "Subdimension" underlines the hierarchical relationship to "dimension"; "technique"

stresses the procedural aspect.

A subdimension is a position on the continuum of a dimension (see below). Thus, subdimension 7 (N V N) is a position on the dimension of POSSESSION. The subdimension is constituted by a bundle of parameters. The bundling point is determined by the morpho-syntactically unmarked values of the constitutive parameters. This is the prototype (see below) of the subdimension. Alternatively, one or more parameters may meet in their more marked, non-prototypical values. This is where the aspect of "technique" comes into play; this is also what we meant by "parameter stretching". The Cahuilla technique of POSSESSOR and POSSESSUM in juxtaposition (NN), where one or both are pronouns, is an example (2.4.1.). Here the unmarked sequence of 'thou (art) my niece' (ex. 6) denoting 'inherence' is the prototype. The corresponding 'establishing' expression (ex. 7) is heavily marked, comprising an object marker and a marker of directionality. We stated that these are elements that make their prototypical appearance much "later" in the dimension, i.e. when approaching dominant predicativity. From this we learn - and this concerns prototypicality, the point to be discussed next - that the prototypical instance of the subdimension is the bundling point of the morpho-syntactically unmarked values of its constitutive parameters. This is the point of maximal distance in terms of

properties between any two subdimensions. The more one or several parameters get "stretched", the more the respective subdimension becomes similar to and thus approaches the neighbourhood of some other subdimension.

Note that the relationship of parameters in a subdimension is that of intersection

(41) a · b · c ... · z

5) Prototype. Compare the foregoing and my programmatic article (Seiler 1989). By and large, linguistic prototype research is still basically in a taxonomic stage. The procedure is largely per ostensionem, i.e. by accumulating examples of prototypes. A special issue of Linguistics (27/4, 1989) has been devoted to the problem.

In the article cited above I said that prototypization implies parametrization, i.e. the bundling of parameters. The following scheme, taken from a recent paper on the technique of noun/verb distinction by J. Broschart (forthcoming) may visualize this idea:

Protot. X	$+X_1$	$+X_2$	$+X_3$	$-Y_1$	$-Y_2$	$-Y_3$	
	$+X_1$	$+X_2$	$-X_3$	$-Y_1$	$-Y_2$	$+Y_3$	
	$+X_1$	$-X_2$	$-X_3$	$-Y_1$	$+Y_2$	$+Y_3$	
	$-X_1$	$-X_2$	$-X_3$	$+Y_1$	$+Y_2$	$+Y_3$	Protot. Y

Fig. 6:

Here, when moving from Prototype X in the vertical to

Prototype Y we move from one subdimension "X" to a different subdimension "Y", and we notice that there is a gradient transition. X_1 , X_2 , X_3 and Y_1 , Y_2 , Y_3 may stand for properties or parameters, and the pluses for the unconstrained (unmarked), the minuses for the constrained (marked) values of the respective parameters.

6) Categories. The justification of categories is not a matter of induction alone (see chapter 5). However, on the inductive, empirical side we may say that the prototype as the bundling point of parameters is also the reference point for the unfolding of categories. This is to say that categories may develop or materialize at the prototypical bundling point of parameters, but that this is not necessarily so. E.g., we have seen that the verb haben 'to have' is the unmarked, prototypical bundling point of subdimension 7 (N V N). The corresponding category HAVE materializes in English and German, but it does not materialize in Russian and many other languages where a copula, thus a category that belongs to subdimension 6 (N Pr.id N) is used instead.

If in the course of our work we have stressed the importance of processuality and operationality as against categoriality, this surely does not mean that we want to "do away" with categories. It does mean, however, that the

nature of linguistic categories must be understood in the framework of parameters (and subdimensions and dimensions), i.e. of continua, instead of reducing continuity to categoriality.

7) Dimension. The highest ranking continuum. Its positions are constituted by subdimensions. The relationship between them is disjunction (in the non-strict sense):

(42) A v B v C v ... v Z

where v means 'and/or'

The construct of a dimension has status both within a single language and in cross-linguistic comparison.

8) Functional/operational principles. In former UNITYP publications the term of "functional principles" prevailed. Again I should now propose a further differentiation: "Functional principles" refers to the invariant-variants relation in a more static sense, while "operational principles" underlines the constructivistic, processual aspect.

8a) Indicativity vs. predicativity. The example of the dimension of POSSESSION and its subdimensions has shown us that an increase in predicativity generally involves an augmentation of morpho-syntactic "machinery". An increase in indicativity, on the other hand is correlated with a

decrease in predicativity; but what is the positive aspect of indicativity? It may be subsumed under the term of pragmaticity. This I have provisionally defined as the output of those mental operations which have a systematic bearing on language in the speech act. It involves context-sensitivity, discourse dependency, and metalinguistic activity. In POSSESSION we have witnessed the role of EGO in dominantly inherent, indicative subdimensions and likewise the role of proper nouns (metalinguistic component involved).

8b) Iconicity. Iconic, imaging representation is based on similarity. Most often there are more than one property criteria on which similarity may be based. In the case of subdimension 6 (N pr.id N) of POSSESSION one criterion was local proximity, another one directionality, a third existence, etc. The consequences are evident; Iconic representation is immediate - cf. C.S. Peirce's "firstness" (Seiler 1986:5 ff.) - but it is polyvalent: A multiple choice situation characterizes a subdimension with predominant iconicity - and this was the case with N pr.id N. Or it is indeterminate. In contradistinction, both indicativity and predicativity strive toward precision.

9) Turning point (T.P.). In accordance with our twofold approach the definition of the T.P. is doubly based:

(a) functionally as the point of equilibrium between the two other principles, i.e. their neutralization as well as the preference peak of iconicity; (b) morpho-syntactically as the point of "dramatic changes". In POSSESSION subdimension 6 is the T.P. which marks the transition from nominal clause possession to full clause possession.

5. Language universals research and language typology

Much discussion around the problem of language universals is vitiated by the still wide-spread acceptance of a seemingly monolithic notion: "That which all languages have in common" - or, to put it in a formula:

(43) $\forall_x \ (L_x \ \text{---}> \ P_x)$

Read: "for all x, if x is a language, x has the property P."

It is in the wake of such an unduly simplifying conception that such pseudo-problems arise as whether the Greenberg-type universals - e.g. AN ---> QN (Greenberg 1978:44) should be called universals or not. Or such other spurious questions as whether there is a "clearcut boundary between language universals and language typology", or there is not any (Comrie 1985:237). Numerous misunderstandings arise because people talk about universals in very different senses and contexts.

E. Coseriu (1974:47-73) has shown the way to avoid these misunderstandings and has provided a valuable instrument in

the form of careful distinctions between different acceptations of the notion of language universals. Here, types of universals of language are cross-classified (a) from a logical point of view, (b) according to different linguistic levels, (c) according to the degree of generality, (d) with reference to a single language (static, dynamic), (e) with reference to the semiotic levels, (f) according to the way they are formulated. Most important for us is his distinction between possible universals, essential universals, and empirical universals.

First, the possible (or conceptual) universals. A verbatim citation is in order here (Coseriu 1974:49).

> "Tous les faits constatés dans les langues - ou même imaginés pour des langues possibles - (propriétés, fonctions, catégories fonctionnelles, procédés matériels) doivent, sans exception, être considérés tout d'abord comme des universaux possibles (conceptuels), c'est-à-dire comme des possibilités universelles du langage, indépendantes d'une langue donnée, pour qu'ils soient définissables et qu'on puisse éventuellement poser leur universalité rationnelle ou empirique. Une définition en tant que telle est toujours universelle: elle définit une possibilité illimitée. Mais une définition universelle n'implique pas la généralité objective de ce qu'elle définit. Ainsi, si l'on définit universellement

l'adjectif, ceci ne signifie aucunement que l'on attribue l'adjectif à toutes les langues, puisqu'une définition n'est pas un jugement d'existence: on le définit pour toute langue dans laquelle il puisse se présenter." "Une définition est le produit de la contemplation de la notion pure" (ibid.).

Next, the essential universals: Here, Coseriu (op.cit.: 50 ff.) insists on the fact that they are rationally deduced from the notion of language itself - instead of being defined. Applied to the UNITYP framework this would mean that the three functional/operational principles are essential universals. They are rationally deduced from intuitive insight into the tasks to be fulfilled by language, viz. that there are precisely these three options: indicativity, predicativity, iconicity in their proper blending.

Finally, the empirical universals: These are stated, not rationally deduced (Coseriu, op.cit.: 52 ff.), and in their absolute form they hold only for the languages for which they can be stated. For the other languages they only hold as possible universals. They are arrived at by induction, i.e. generalization. Applied to the UNITYP framework this would mean that dimensions, subdimensions, and parameters are empirical universals. Their particular interest, as

Coseriu (op.cit.:53) states, consists in their being motivated - motivated as "techniques" (Coseriu's expression) applied in the tasks that language has to fulfill, more specifically even: motivated by the three functional/operational principles.

LUR must face the general problem of sampling. How do we establish a body of data sufficiently variegated in terms of different languages and sufficiently rich in terms of any one particular language to support our claims and systematizations? In an earlier publication (Seiler 1986: 170 ff.) I have discussed this at some length. Among other things I stated "that the model is open in the sense that new data from languages hitherto not considered can be integrated in a natural way." An instructive confirmation of this prediction has occurred quite recently: In a dissertation entitled "KOLLEKTION, NUMERALKLASSIFIKATION und TRANSNUMERUS (Überlegungen zur APPREHENSION im Koreanischen und zu einer typologischen Charakteristik von Substantiven)" submitted to the Zentralinstitut für Sprachwissenschaft of the Akademie der Wissenschaften der DDR, Barbara Unterbeck has produced evidence from Korean and other Southeast Asian languages for the necessity of intercalating a separate subdimension/technique, called TRANSNUMERUS, between NUMERAL CLASSIFICATION and AGREEMENT in NOUN CLASS/NUMBER as they appear in the dimension presented in my 1986 book. It

seems to me that this testifies both to the conformity of the UNITYP framework with reality and to its openness for further data.

Now to language typology. We have concentrated our efforts on the creation and consolidation of a basis for the typological comparison of languages, which is precisely the dimensional framework. It is this framework which allows us to state empirical claims and predictions. It is then our task to show that the choice among the dimensional and subdimensional options for a given language is not random, but is functionally determined by the following factors: 1. The band-width of the cognitive-conceptual exprimendum - e.g. POSSESSION. 2. The hierarchy of levels - dimensions, subdimensions, parameters. 3. The interaction between the three functional/operational principles; specifically the complementarity of "pulls" between predicativity and indicativity. 4. The pragmatic aspect of context, discourse, shared knowledge, etc.

Typicality emerges from observations of so-called "preferred connections" (Skalička 1966; Coseriu 1980:167) shared by a particular group of languages. The notion is akin to J. Greenberg's "cluster of properties" as an essential ingredience of his typology (Greenberg 1974:32). It should be noted, however, that the implicational statements figuring below, although bearing some resemblance

to the well-known "universals" of the Greenberg types are different in their status: They are derived from the framework instead of being arrived at by inductive generalization, i.e. from a sample of languages.

A first installment of typology in the UNITYP framework is in Seiler 1987 (250-71). On the dimensional level one of the most salient complementarities obtains between the extreme range vs. the medial range. It was stated for APPREHENSION, but seems to hold for POSSESSION as well. It concerns the contrast between variation within one and the same language (intra-language) vs. variation between languages (inter-language).

In POSSESSION, subdimensions 1 (NN) and 7 (N V N) represent "outer-layer" techniques. They both exhibit considerable variation, i.e. diversity, within one and the same language. Subdimensions 4 (N case N) and 5 (N class N) are "inner-layer" techniques. They seem to be more uniform intra-linguistically. Moreover, while "outer-layer" techniques may be combined with one another - compare

(44) Who owns (N V N) your house (NN)?

"inner-layer" techniques seem to occur in exclusion with one another and with outer-layer ones. The following negative implications may be submitted for testing:

(45) [+ N class N] $\longrightarrow$ [- N case N]

i.e. if a language has possessive classifiers, it does not

combine them with a possessive case.

(46) [+ N class N] —> [- N V N]

i.e. if a language has possessive classifers, it does not show verbs of possession. This seems to hold at least for Melanesian languages, where it is interesting to note that in one specific language, Nguna, the emergence of a possessive verb corresponds to the disappearance of possessive classifiers (Mosel 1983:17).

Subdimensions are the hosts of grammatical categories which are their focal instances. Subdimensions are also the realm of grammaticalization processes. For that very reason it is within subdimensions that the classical morphological typology with its degrees (or continuum) of isolation vs. agglutination vs. fusion does have its validity and even a renewed interest. I have presented an exemplary case within the subdimension/technique called CLASSIFICATION by VERBS in the dimension of APPREHENSION (Seiler 1986:77 ff.). The predictive and explanatory potential of the UNITYP framework in terms of LTYP is still far from being fully exploited.

6. Diachrony

A similar remark could be made about the explanatory potential of our framework in the domain of historical linguistics. The task consists in demonstrating that the

continuum on all hierarchical levels is the most natural frame for describing and explaining the emergence of innovations.

Let us once more exemplify with POSSESSION. In accordance with the bi-directional nature of the dimension and subdimensions we expect forces of change at work in two directions: in the direction toward establishing the possessive relationship by using ever more explicit means (markedness); and in the converse direction of "retreating" toward inherence of the possessive relationship by progressive grammaticalization and pragmatization. In subdimension 7 (N V N) replacing Latin mihi est domus 'to me is a house' by habeo domum 'I have a house' is resorting to more explicit means for establishing the possessive relation. They are more explicit, more predicative, because, amongst other things, habeo is person-differentiated and shows object government. - On the other hand, the development of originally dynamic verbs meaning 'to seize', 'to take', 'to grasp', etc., toward stative verbs is a "retreat" toward inherence and pragmatization. A driving force for this "pull" is grammaticalization. A weakening of the special meaning of the verb is often the result. The middle voice prevails, as does the perfect, describing the state of the subject, as in Sanskrit īśe 'to be master, dispose of, control', Avestan ise, etc.; or

stative derivatives like the ones in -ē-, as in Old High German habēn 'to have' when compared to its Latin cognate cap-io 'to seize', or Slavonic imēti 'to have' when compared to its Gothic cognate niman 'to take', all emphasizing the state of the subject. The process is probably self-repeating, since both forces continue to exert their attraction. Mihi est domus 'to me is a house' is to habeo domum 'I have a house' as OHG habēn 'to have' is to Gothic hafjan 'to seize'. Pragmatization also has to do with the speaking subject's self: It is certainly not by accident that most verbs of possession are intimately connected with body parts, thus with 'self': 'take', 'hold', 'seize', 'grasp' with HAND, German besitzen 'possess' with BEHIND, etc.

From our systematic treatment of the notion of continuum in general, and of the turning point in particular (chap. 4.9.) we expect that the T.P. and its immediate neighbourhood is an area of structural instability and thus particularly prone to renewal. In the dimension of DETERMINATION (Seiler 1978:301-28; 1985:435-48) the subdimension of articles marks a clear T.P. It separates the area of permutable and relativizeable determiners from the area of non-permutable and non-relativizeable ones. In languages with articles this is a category which is notoriously subject to renewal: It may arise either from

demonstratives or from the numeral 'one'.

A further source of innovation is the shift across dimensions. Thus identification of reference in article-like fashion may stem from NUMERAL CLASSIFICATION (Seiler forthcoming).

7. The gradual unfolding of the UNITYP framework

There is a pronounced isomorphism between the gradual exfoliation of linguistic construction and representation of cognitive-conceptual domains and the unfolding of the theory and framework that brings these processes to consciousness.

Our work began with an instantaneous, "indicative" recognition of an "Universalien-Konzept" (Seiler 1973: 6 ff.): Language as a problem-solving system, centrality of the notion of function, representation of cognitive concept, interdisciplinary approach. Subsequent research did not have to revise these basic characteristics but strived for greater explicitness.

The "indicative" stage was soon superseded by an "iconic" procedure manifesting itself in a certain reliance on graphs, geometricized representations, and metaphors.

Then, in the endeavour to become more "predicative", a number of important notions were added. One of them is grammaticalization recognized by Ch. Lehmann (1982, 1987).

Another one is relationality, also introduced by Lehmann (1985, 1986). A number of dimensions and subdimensions were described in full detail (see above, chap. 1). The necessity for positing language-independent tertia comparationis was recognized (Seiler 1984, 1985a:9 ff.), and the affinity, in this respect, with K. Heger's noematic framework (Heger 1983:97 ff.) continues to be a source of mutual inspiration. A clear distinction was proposed (Seiler 1986:1 ff.) between a semasiological procedure with inductive generalizations, and an onomasiological procedure with abductive positing.

In former publications we were talking about a model - the UNITYP model. This was to convey the idea that it was still a simile (with strong iconicity) rather than a full-grown theory. I now provisionally use the term of "framework". This underlines the idea of openness discussed above (chap. 5). It is a framework which frees linguistic phenomena from their splendid isolation and which makes them intelligible in their most natural context. It makes empirical claims in typology and in diachrony possible and testable.

The ultimate goal, to be sure, is a theory - a theory of language, that is, not a theory of grammar. We may still have long ways to go. However, the distance to cover matters less than the direction to take. Surely, we are not up to a "grandiose theory", but a theory explicit enough to be measured at every instance on old and new language data.

8. Translatability and language universals

This is the title of a recent paper by B. Comrie (1989: 53 ff.) in which he examines the proposition that there is a close relationship between the existence of language universals and the possibility of translating between languages, in short, what he calls the Translatability-Universals Connection (henceforth abbreviated as TUC). He thinks that this idea is "either, at best, ignored in the practical enterprise of 'doing linguistics' or, at worst, [will] have a debilitating effect on the progress of linguistics as a discipline" (op.cit. 53).

In the following lines I shall endeavour to demonstrate that the TUC not only is not among the "ideas not to live by" (McCawley 1976), but that the linguist in general, and the universalist and typologist in particular has every interest in considering TUC as a matter of primordial significance.

Comrie's argumentation is in two steps: In a first section he broaches the question of what one understands by the term of translatability. He enumerates cases where translation is not possible: Metalinguistic reference, lack of translation equivalent, etc. In a second section he assumes for the sake of argument (and, as he believes, counterfactually - with reference to section 1) that, at

least to some threshold, translation is possible. He then proceeds by examining a small section of what he understands by language universals and showing how their existence is independent of questions of translatability (op.cit. 60).

I confess to be unable to understand the logic of this procedure: Either translation is not possible - then section 2 is superfluous. Or translation is possible - then section 1 is superfluous.

The argumentation suffers from underdifferentiation of the two cardinal concepts involved: translatability and universals. I shall not repeat what I stated about LUR above (chap. 5). As for translatability, we are in the happy position of disposing of some profound and penetrating essays of two prominent figures of our profession - R. Jakobson and E. Coseriu. All we have to do is to take notice of their insights.

Under the somewhat provocative title of "Falsche und richtige Fragestellungen in der Übersetzungstheorie" (Correct and false statements of the problems in the theory of translation) Coseriu (1978:17 ff.) stigmatizes the view that translation concerns the respective individual languages and the meanings of their words and constructions. Since these meanings are patently different from one language to another, this leads to the paradox that translation is not possible although in practice it is a necessary and highly

significant activity in linguistic behaviour.

In order to resolve the paradox, Coseriu states (op.cit. 20 ff.) that the task of translation does not consist in rendering the meanings of individual languages; it does not concern the individual languages altogether; it concerns texts. "Only texts are being translated; and texts are being produced not alone with linguistic means but also, to a variable extent, with the help of extralinguistic means" (l.c.). In our own terminology we would say that translation operates on cognitive-conceptual content. It establishes equivalences of (cognitive-conceptual) denotation, whereby the relation between the respective meanings of the target and the source language is an indirect one. What is at stake here is, again, the distinction between an onomasiological and a semasiological procedure (see chap. 7).

"On linguistic aspects of translation" is a brief and dense article by R. Jakobson (1959/1971:260-66). He distinguishes between 1) intralingual translation or rewording as an interpretation of verbal signs by means of other signs of the same language; 2) interlingual translation or translation proper as an interpretation of verbal signs by means of some other language; 3) intersemiotic translation or transmutation as an interpretation of verbal signs by means of signs of nonverbal sign systems. - He furthermore distinguishes

between a cognitive level and a level for which he does not offer a single term, but which essentially has to do with metalinguistic activity, with jest, dreams, and above all, with poetry.

On the cognitive level his verdict is clear: "All cognitive experience and its classification is conveyable in any existing language" (op.cit. 263). "In its cognitive function, language is minimally dependent on the grammatical pattern, because the definition of our experience stands in complementary relation to metalinguistic operations - the cognitive level not only admits but directly requires recoding interpretation, i.e. translation" (op.cit. 265).

Metalinguistic operations have their preferential peak at the indicative pole of our dimensions and subdimensions. Here, where representation of cognitive concepts is implicit instead of explicit, inherent instead of established (cf. POSSESSION), where there is reliance on pragmatic factors and, partly non-verbal, "relevance to the situation" (cf. Sperber & Wilson 1986), it comes as no surprise that "the question of translation becomes much more entangled and controversial" (Jakobson, l.c.). However, it would be erroneous to dismiss these aspects as being alien to the linguist's domain on the grounds that "this requires reference to extralinguistic knowledge and is largely independent of the structural properties of languages" (Comrie,

op.cit. 60) - how largely?

As Jakobson rightly states, the definition of our experience (predicativity) stands in complementary relation to metalinguistic operations (indicativity). Complementarity means solidarity. Of course, translation does not pertain to reality as such; only that which is linguistically represented in a language can be translated into another language. Metalinguistic operation does have its reflexes on the expression plane. Translators know this intuitively, and their activity in this realm takes the form of creative transposition. This is in principle also true for poetry.

It seems worthwhile in this context to reexamine one of Comrie's examples that allegedly testify to the impossibility of translation (op.cit. 54) - all the more so as the text of the source language is not correctly quoted and no authentic translation into the target language is adduced. The text is Homer's Odyssey (9.406 ff.), and the story is about the trick played by Odysseus on the giant Polyphemus, in which Odysseus informed Polyphemus that his (Odysseus') name was Nobody, so that when Polyphemus called out for help to his fellow giants, he could only tell them "Nobody":

406 (the fellow giants asking)

> ẽ mḗ tís s' autòn kteínei dólōi ēè bíēphin ?
>
> 'Is it perhaps that somebody is killing you by ruse or by force?'

408 (Polyphemus answering)

ὦ phíloi, Oũtís me kteínei dólōi oudè bíēphin

'O friends, Nobody is killing me by ruse and not even by force'

The wording is parallel, but in the answer oudé '(and) not even' - not ēé, as Comrie has it - negates the second alternative: 'by force'. This is a sophisticated formulation by the poet that reinforces the giants' interpretation to the effect that

410 ei mèn dḕ mḗ tís se biázetai oĩon eónta...

'If apparently no one is doing you harm, you being alone...'

According to Comrie (op.cit. 55), in Russian, this trick is necessarily lost in translation, because Russian requires multiple negation with negative pronouns. Let us see what a real Russian translator does in this case. The great poet and translator Vasilij Andreevič Žukovskij has produced a complete translation of the Odyssey (1842-1849) and of the Jliad (1849-1850) (P.A. Efremov, ed. 1878). Here we read:

406 No kto že tebja zdes' obmanom ili siloju gubit ?

'But who ruins you here by ruse or by force ?

408 Nikto ! No svoej ja oplošnost'ju gibnu.

'Nobody ! But I perish by my own mistake'

409 Nikto by Siloi ne mog povredit' mne.

'Nobody could harm me by force'

410 (the giants)

Esli nikto, dlja čego že odin tak revëš ty ?

'If nobody, why do you, being alone, shout thus ?'

The comparison shows that the translator fully masters the intended ambiguity between metalinguistic (proper noun) and object linguistic (negative pronoun) interpretation. Polyphemus' answer is simply represented by Nikto-period; and this can, indeed be interpreted in both ways: as a negative pronoun or as a proper name. The translator does not have to imitate the structural parallelism between question and answer. And yet, the particular Homeric trick with oudé is not lost in the translation - it is simply rendered by a more explicit procedure: "I perish by my own mistake - nobody could do me harm by force." These words are added in the translation and function as a rewording of the more compact formula in Greek.

In conclusion, the example shows the contrary of what Comrie intended to demonstrate: The Russian translator - and reader - is fully aware of the metalinguistic/object-

linguistic ambiguity conveyed by the text.

Returning to the general problem of TUC, we may once more cite Jakobson (op.cit. 261): "For us, both as linguists and as ordinary word-users, the meaning of any linguistic sign is its translation into some further, alternative sign, especially a sign "in which it is more fully developed", as Peirce, the deepest inquirer into the essence of signs, insistently stated." This has an immediate bearing on our dimensional framework: The continuum that leads from dominant indicativity to dominant predicativity can be viewed as a sequence of translations of one and the same overall cognitive-conceptual content into successively more explicit representations. The richer the verbal context, the smaller the loss of information in translation. The terser the verbal context and the more reliance on "relevance to the situation", the more creative transposition is required from the translator. Indicativity and predicativity have been shown to be essential universals. Their relevance to translation is thus beyond dispute.

9. LUR and LTYP, past and present

The efforts of the UNITYP group have been concentrating thus far on the construction and validation of the framework as outlined in the above. We have not yet found the necessary leisure nor the necessary distance to our work for

systematically embedding it into a general history of LUR and LTYP.

There can be no doubt, however, that we stand on the shoulders of our predecessors - and I hope this will have become sufficiently evident in the course of our presentation. We are particularly indebted to W. von Humboldt for his view on language as an enérgeia rather than an érgon (3.1.). In more recent times, all the major national traditions in typological research have exerted their influence on our work in one way or another: The French, American, Russian, and Prague. Let me cite some of what I consider to be the most seminal works: E. Benveniste (1966:99-118) with his profound insight into language data as being a result rather than a primum datum; Ed. Sapir (1921:120 ff.) with his trail-blazing chapters on typology; J. Greenberg (1974/1978) the founder of implicational typological statements; S.D. Kacnel'son (1972/1974) with his theories on Language Thinking and Universal Grammar; V. Skalička (1974) with his idea of "preferred connections". Two great figures of our science must be mentioned above every level of national affiliation: R. Jakobson and E. Coseriu. Without their stimulating ideas and penetrating distinctions our work would not be what it is today - the many citations in our foregoing presentation bear witness to this.

Our approach differs substantially from contemporary work in the field mainly in the following respects:

1. The view on language as a problem solving system, and consequently: a teleonomic interpretation of function.

2. A circumscribed acceptation of function as an operation relating an invariant to its proper variants. A number of functions can be distinguished.

3. A systematic distinction between semasiology (language-specific meanings) and onomasiology (cognitive-conceptual content). The task of language consisting in the construction and representation of cognitive-conceptual content by means of language-specific meanings and forms.

4. A dimensional framework based on the construct of continua. They make it possible to order data from the diversity of the languages of the world under the common denominator of cognitive-conceptual content, thereby explicating the ways in which diversity is linked to unity.

5. The insistence on operationality as the primary aspect of universality; specifically, the claim that the three functional/operational principles (indicativity, predicativity, iconicity) are universal.

6. The availability of a basis for the comparison of languages. It is the basis on which typological statements receive their full relevance. It is the basis, too, on which to understand and/or to predict language change.

Footnotes:

[1] The complete descriptive title in German is: "Sprachliche Universalienforschung und Typologie unter besonderer Berücksichtigung funktionaler Aspekte."

[2] We give here abbreviated references. Full indications may be found in the bibliography at the end - to the extent that the items are relevant to the discussions in this contribution.

[3] Term and symbolization following a suggestion by G. Bossong (1984:230).

[4] I have profited here from criticisms voiced by D. Hasenclever with regard to my earlier discussions of the notion of function (Hasenclever 1990).

[5] In compiling this presentation I have profited from discussions with Thomas L. Markey.

[6] See the incisive statements by E. Coseriu (1978:17 ff.).

POSSESSOR		POSSESSUM	Expression Type	POSSESSOR		POSSESSUM	Expression Type
my	(1)(3)	she	almost excl. Inher.	her	(3)(1)	I	only Establ.
my	(1)(2)	thou	mostly Inher.	thy	(2)(1)	I	mostly Establ.
thy	(2)(3)	she	prefer-ably Inher.	her	(3)(2)	thou	prefer-ably Inher
her	(3)(3)	she	Inher. and Establ.				

Fig. 1:

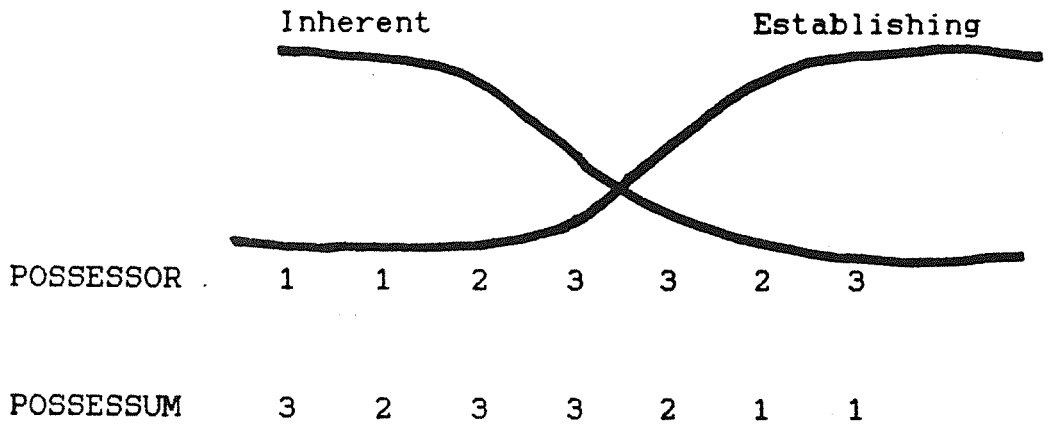
Inherent
Establishing
POSSESSOR 1 1 2 3 3 2 3
POSSESSUM 3 2 3 3 2 1 1

Fig. 2:

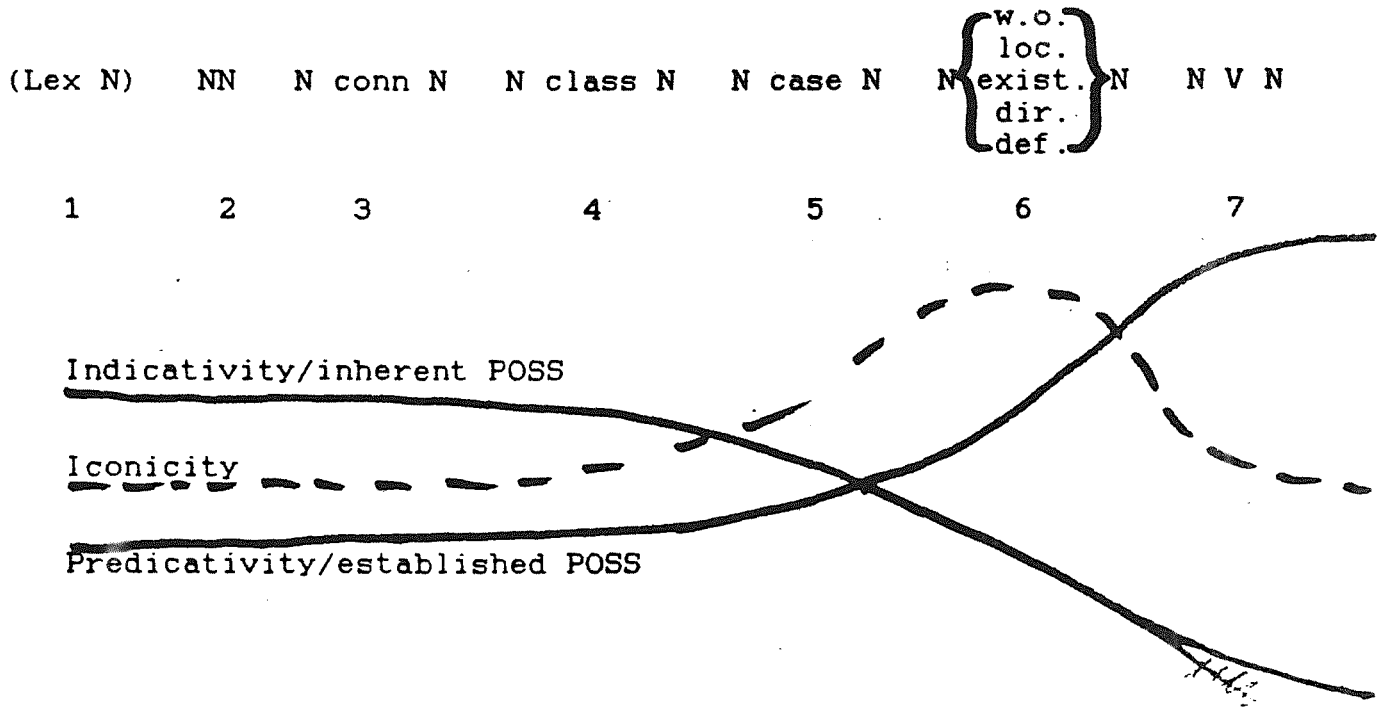
(Lex N)
NN
N conn N
N class N
N case N
N {w.o. loc. exist. dir. def.} N
N V N
1
2
3
4
5
6
7
Indicativity/inherent POSS
Iconicity
Predicativity/established POSS

Fig. 3:

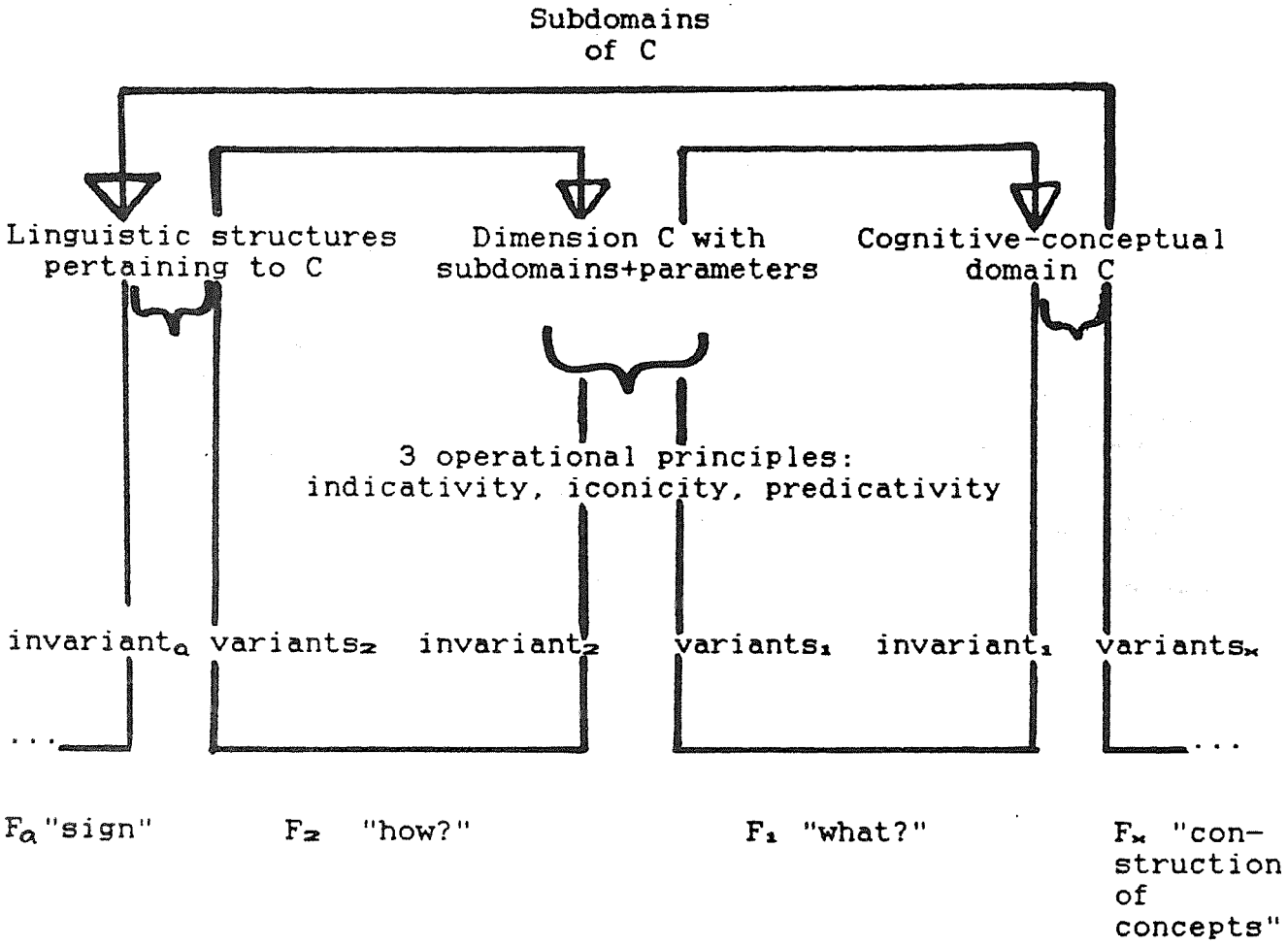
Subdomains
of C
Linguistic structures
pertaining to C
Dimension C with
subdomains+parameters
Cognitive-conceptual
domain C
3 operational principles:
indicativity, iconicity, predicativity
invariant$_a$
variants$_2$
invariant$_2$
variants$_1$
invariant$_1$
variants$_x$
...
...
F_a "sign"
F_2 "how?"
F_1 "what?"
F_x "con-
struction
of
concepts"

Fig. 4:

Indicativity	Iconicity T.P.	Predicativity
lexical		syntactic
inherent relation		established relation
less regular		more regular
less freedom of substitution		more freedom of substitution
less marked		more marked
more grammaticalized		less grammaticalized
more likely locus of suppletion		less likely locus of suppletion
more cohesion		less cohesion
less "new" information		more "new" information
instant/global recognition		construed recognition (step-by-step)
more open to pragmatics		less open to pragmatics
pragmatically complex (discourse function)		pragmatically simple
metalanguage dominating		object language dominating

local expressions

other metaphors

neutralization

multiple choice

instability

Fig. 5:

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