Art. 1

Language universals and language typology
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Contents

1 A necessary change of perspective 1
2 Different levels 3
3 Some problems for typology 5
4 Universals as a solution 8
5 Universalistic advantages 16
6 Shortcomings of traditional views 22
7 References 23

1 Introduction: a necessary change of perspective

Before tackling the question of language universals, language types, and the relationship holding between them, let us first clarify the different meanings of the concept ‘language’.

1.1 Language as utterance

There is no doubt that the main function of human language is to communicate with others, thus creating societal links. Hence, whenever we are addressed by others or speak ourselves, language means ‘utterance’. Utterances may be long and complex like a speech, or short and simple like an interjection or an exclamation, a “yes” or a “no” – the most frequent case being utterances which consist of one, two or more units linguists call ‘clauses’ or, in logical terms, ‘propositions’.

Communication by language is based on social convention. Hence, the utterances we engage in or exchange with others always reflect a socially accepted or ‘ratified’ activity: somebody has to be welcomed; we engage in smalltalk with her or him, asking questions, giving answers or making jokes; somebody asks us for the way, gives us a recipe, or engages in gossip with us; we buy something in a shop, we flirt with a member of the opposite sex, explain the arcana of a computer program to a friend; somebody may tell us a tale or try to recommend to us the novel she or he has just read. Other, more privileged persons pass judgement on somebody, make an injunction or pronounce a verdict. Such outstanding persons may also read a paper before a large audience, or give a sermon to the parish; they may teach a course in economics, or give a keynote speech at a conference; some people of very high standing address a whole nation in a State of the Union address, or even the entire – then catholic – world (“urbi et orbi”) in a lengthy Encyclical titled e.g. “fides et ratio.”

The italicized terms in the preceding paragraph describe social activities or ‘acts’ accompanied – or even only made possible
– by the use of language (‘speech acts’). Language thus is a kind of SOCIAL SEMIOTIC (→ art. 3; art. 35, § 4.3; Halliday 1979; cf. for similar approaches Eckert (ed.) 1998; Forgas (ed.) 1985; Giglioli 1990; Gumperz 1971; Hickmann (ed.) 1987; Slobin (ed.) 1996; Totman 1985; Varro (ed.) 1994 etc.). Language – in the present case: its manifestation in speech – thus does not come in words or sentences such as “the farmer killed the duckling”, “Alfred bat Eugène” or “Alexander vicit Darium”; speech manifestations of language come first and foremost in socially accepted types of utterances. Without such socially acknowledged utterance types or ‘communicative genres’ human communication would hardly be possible (cf. most convincingly Bakhtin 1979/1986; in an historical perspective: Frank & al. (eds.) 1997; → art. 36).

Now, although all the above examples have in common their being types of utterances, in a certain respect they cannot be seen as being on the same level. The State of the Union address or the papal encyclica are long and highly elaborate written texts (orally performed in the case of the address), whereas the joke, smalltalk, gossip are less elaborate, and oral into the bargain.

In order to take into account this difference, such text types can best be arranged on a scale. With Douglas Biber (1986; 1988) its one end could be termed ‘interactive text’, the other one ‘edited text’. With Peter Koch and Wulf Oesterreicher (1985; 1994) we might say ‘conceptually oral’ and ‘conceptually written’ (i.e. highly planned and edited) text.

For a similar distinction Karl Bühler (1934: 48–69) had already introduced a pair of Greek terms used by Wilhelm von Humboldt in the 19th century: language as ἐνέργεια vs. language as ἐργὸν, that is to say language as an activity or a process (involving present partners), as opposed to language as something created and produced, for instance a book. What is increasing from one end of this scale to the other one is, among other things, the amount of planning.

But there is more. Proposing his scheme, Bühler – a psychologist – solves en passant and without any fuss a problem that was most intricate if not unsolvable to most post-Saussurean linguists: the clash between the one and the many, the individual and society: speech events in the narrow sense of parole are of necessity individual phenomena limited in time and space, as opposed to a langue whose socially encompassing character – la langue est un fait social – was beyond doubt. The horizontal dimension of the following scheme overcomes this limitation by interpreting the opposition – or better: the scale – between the individual and society as a constitutive characteristic of parole itself: the less utterance types are anchored in situations necessitating the presence of communication partners (‘situationsgebunden’), the more does the radius of communication grow in space and time (‘situationsentbunden’, ‘intersubjektiv’). The progress in the Bühlerian approach is directly visible when we project – as did Bühler himself – Saussurean parole and langue onto his scheme: they appear now as diametrically opposed.

The corresponding ‘Vierfelderschema’ proposed by Bühler looks like this:

<table>
<thead>
<tr>
<th>Degree of abstraction</th>
<th>Degree of intersubjectivity and planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>Sprechereignis</td>
<td>Sprachwerk</td>
</tr>
<tr>
<td>(Saussurean parole)</td>
<td>(planned product)</td>
</tr>
<tr>
<td>higher</td>
<td></td>
</tr>
<tr>
<td>Sprechakt</td>
<td>Sprachgebilde</td>
</tr>
<tr>
<td>(speech act)</td>
<td>(Saussurean langue)</td>
</tr>
</tbody>
</table>

Figure 1.1 Karl Bühler’s ‘Vierfelderschema’

1.2 A first definition

To sum up the first meaning of the concept under discussion: Not only does language take shape in utterances (i.e. texts) which can be attributed to socially conventionalized text types (→ art. 3, § 2.1; art. 6, § 1.3; art. 35, § 4.3; art. 36; art. 44, § 5): at the same time these types can be arranged on a scale between “speech events” (Bühler) like ‘smalltalk’, and e.g. the ‘encyclica’ as an instance of a “Sprachwerk”, i.e. a highly planned and elaborate type of text existing not only in papal LATIN, but moreover in
parallel translations into a large number of other languages.

Although such elaborate products tend to come as written texts, there is by no means a necessary link between writing and the Bühlerian “Sprachwerk.” The elaborate speech of an American Indian chief would have conformed to this description as well, and hence should be located close to the right hand end of the scale, the “Sprachwerk”, too.

1.3 Linguistic variation

Between 1911 and 1940, Jacques Damourette and Édouard Pichon published seven volumes of a French grammar under the heading of Des mots à la pensée. Essai de grammaire de la langue française. Apart from the intellectual adventure of an entirely novel linguistic terminology, the present-day reader is overwhelmed by some 35,000 authentic examples showing first and foremost one thing: wellnigh anything goes in this language. Forms and constructions no French grammarian or linguist would ever have admitted as possible and no traditional grammar would have dared to mention even in footnotes were well documented – and can still be found – in the reality of ‘language as tokens’. It should not come as a surprise that quite a lot of these specimens, but not all by far, were utterances made in spoken everyday language, let alone the immense scale of further utterance types that were taken into account.

This raises the problem of linguistic variation, of the ‘boundaries’ of languages, and the relationship holding between ‘languages’ and ‘dialects’. Even if grammars like the one written by Damourette & Pichon reflect linguistic reality, linguistic data need to be filtered through a theory of variation (e.g. Koch & Oesterreicher 1990) according to the dimensions ‘space’, ‘social stratum’, ‘medium’, and, again, ‘utterance types’ (see above § 1.1) with the different degrees of planning they imply.

Nevertheless, grammars such as the one of Damourette & Pichon draw our attention to the fact that the grammars we all have to rely on are (and of necessity have to be) idealized constructs created by professional linguists. Hence, typologists should complement the information put at our disposal by such grammars with the thorough analysis of text corpora representing a certain variety of utterance types, thus going beyond the traditional (and by no means totally avoidable) analysis of examples found in reference grammars.

2 Different levels of observation and abstraction

The introduction started from language as the observable, directly accessible Saussurean parole. While doing this, an important modification was introduced, though: ‘Language’ as parole can be seen as manifesting itself on a scale. This picture has to be complemented by the phenomenon of linguistic variation as sketched in § 1.3.

The Bühlerian scale was generated by the projection onto parole of a somewhat more abstract perspective – a look from the level of UTTERANCE TYPES or TEXT TYPES. It should be underlined that, even if these types are more abstract than sheer parole phenomena, those who use the social semiotic called ‘language’ always are perfectly aware of the existence of utterance types. During our lifelong linguistic socialization, we get passively – privileged persons sometimes even actively – acquainted with a large number of them.

However, if we climb one further step on the ladder of abstraction, we definitely quit the domain of everyday knowledge, getting into a sphere quite familiar to linguists, if rather alien to average speakers: this is the level of de Saussurean langue, i.e. the domain of ‘language as a system’. Whilst normal humans may still speak of ‘words’ and ‘sentences’, ‘questions’ and ‘answers’, linguists deal with entities such as ‘word class’, ‘subject’, ‘article’, ‘apposition’, ‘relative clause’, ‘determiner’, ‘head’, ‘phemoné’, ‘clefting’, SANSKRIT ‘bahuvrīhi’, ANCIENT GREEK ‘sýndesmos’, and the like. In a positive way: linguists do “par science, ce que les autres font seulement par coutume” (Claude Lancelot in the Préface of the famous Grammaire générale et raisonnée of Port Royal published in 1650).

Linguists get such concepts either – by in-
duction – from direct, methodical observa-
tional of ‘language as parole’ (e.g. “distribu-
tional analysis”), mediated by ‘language as utterance types’; or they draw on a model of grammar they are familiar with, and which may be more or less adequate to this pur-
pose. In cross-linguistic studies, there is some chance that data from at least part of the languages of a sample come from gram-
mars written by others, the authors of the studies thus lacking a thorough knowledge of some of the languages at stake. Here lies a major problem that has to be considered in more detail (see below § 3.3).

However, once we have accepted the inter-
mediate layer of text types ordered on a scale, our traditional concept of langue has to be modified in a way which was again already outlined by Bühler in his above-mentioned “Vierfelderschema”. Cor-
responding to the speech event (“Sprecher-
eignis”) and the “Sprachwerk” on the parole level, he suggests, on the langue level, the terms “Sprechakt” (speech act) and “Sprachgebilde”.

This is tantamount to saying that there are two possible ways to conceptualize langue and ‘grammar’: one that became familiar in post-Saussurean linguistics: here the system is seen as a global and overall system of rules producing any speech event whatever; and another one which sees the system parallel to the types of utterances it is needed for, that is as an always only ‘partial’, emergent system producing the socially ratified text types we became used to and want to use in particular cases (cf. Hopper 1998).

An example will show what is meant. A FRENCH judgement – even if it is go-
ing on for several pages – always comes in one single sentence. It has the overall struc-
ture The court (...) given that (...) given that (...) given that (...) on behalf of these motifs (...) convicts / condemns / acquits / proves not guilty / fines / dismisses / rejects (...). The entire description of the case, the arguments of the parties, the deliberation of the court etc., is linguistically conceived of as a series of adverbials, each one headed by a “given that” (mostly realized as attendu que or considérant que), and internally constructed according to a highly complex syntax admitting up to ten or more hierarchical levels of hypotactical embedding (cf. Krefeld 1987).

This presupposes, on the langue-level, the existence of syntactic means allowing such complex constructions: in FRENCH this means, among other things, conjunc-
tions functioning on the respective levels of embedding, the possibility of expressing all the relevant logical relations on these levels, and of making clear to the reader or hearer that, whenever s/he is quitting a certain level, s/he actually quits it, and on which level s/he arrives next.

This complex subordinating machinery did not exist in FRENCH from the begin-
nning. It was created by way of grammatical-
ization in centuries of development accord-

ing to the demands made by specific situations of social communication. (This leaves us with one further example of “discourse – or more precisely: utterance types – shaping grammar”.)

As soon as these demands disappear, the corresponding means of expression tend to vanish as well: witness the levelling of the difference between coordination and sub-
ordination in the system of LOUISIANA FRENCH, a language that was never used as a written language (cf. Stäbler 1995; 1995a), or witness the simplified techniques allow-
ings for the linking of propositions in emer-
ging CREOLE LANGUAGES (Raible 1994).

On the other hand, we may observe how e.g. CREOLE LANGUAGES which up to date did not have to cope with complex types of written texts and their specific demands, have to develop the adequate means, as often by first borrowing them from the language serving as an acrolect in a given situation, in most cases ENGLISH, FRENCH, or PORTUGUESE (cf. e.g. Ludwig 1996, Kriegel 1996) – a phenomenon that could be ob-
served as well for the early stages of writ-
ten ROMANCE LANGUAGES in the Middle Ages, where the corresponding acrolect was LATIN (cf. e.g. Raible 1992: 203ff.). Creole writers are even aware of the fact that they have to draw on European tradition and its linguistic patterns when describing for instance a Caribbean landscape (here the problem is not on the level of vocabulary, as one might presume):

“Écrivant en créole, j’ai été confronté à cette difficulté d’exprimer la belleté [beauté

Peter Mühlhäusler’s contribution on Universals of Pidginization (∆ art. 116), based among other things on the comprehensive survey published in Wurm & al. (1996), starts from a similar assumption, viz. of pidgins that may be less or more complex according to the demands made by users and specific communicative needs in specific situations. A similar view of gradience has been put forward by John H. McWhorter (1998) as regards CREOLE LANGUAGES. The contribution of Hans-Jürgen Sasse on changes that can be observed in language obsolescence admits the same kind of view, with the reduction of complex syntax being even a topic in the relevant discussion (∆ art. 118, § 2). We should, hence, not only consider language obsolescence, but also its logical counterpart, the evolution of language systems, their “Ausbau” or “emergence” (Kloss 1978; Hopper 1998).

<table>
<thead>
<tr>
<th>degree of abstraction</th>
<th>Degree of intersubjectivity and planning</th>
<th>lower (token level)</th>
<th>intermediate (utterance types)</th>
<th>higher (language level; types)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low</td>
<td>Sprechereignis (speech event)</td>
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</tr>
<tr>
<td></td>
<td>high</td>
<td>Sprachwerk (planned product)</td>
<td>e.g. FRENCH judgement</td>
<td>Sprachgebilde (act)</td>
</tr>
</tbody>
</table>

Figure 1.2 Expanded Bühlerian conception showing three meanings of ‘language’: as token, as type and as system (‘langue’)

The Bühlerian concept of langue, then, is not an overall system comprising all the possibilities, but a scalar one, running parallel to the demands made by socially ratified utterance types. If we engage in smalltalk, we do not need a syntactic armour going from head to foot. The “pragmatic mode” of Talmey Givón or Eleanor Rosch will do.

All this is visualized in the preceding scheme that, with its three levels of increasing abstraction, shows at the same time three different meanings of the concept ‘language’:

Some will associate the intermediate level with the concept of ‘style’ – which is tantamount to saying that ‘style’ is a domain of linguistics, too.

While components of the system may be necessary for all types of utterances (phonology, a large part of the morphological apparatus and simple syntactic devices), components allowing e.g. in ENGLISH the condensation of clauses into nominal syntagms (“on account of”), certain epistemic and a large number of speech act verbs reflecting ever more sophisticated utterance types (e.g. Traugott 1987), or complex syntax, etc., are not.

3 Some problems arising for language typology

We are now acquainted with three meanings of ‘language’ depending on three levels of abstraction. Language typologists add one further step on this ladder of abstraction. Instead of analyzing one single historical language and its system (perhaps even according to types of utterances it generated, i.e. by the analysis of a corpus), typologists “cross-linguistically” compare the systems of historical languages, or at least parts of them. This may lead to a series of problems.

1. Language systems reply to demands.
   – Once we have accepted that language systems develop parallel to the demands that are made on them (see above § 2): are we then entitled to consider e.g. ENGLISH or FRENCH data as being on a par with the French based CREOLE spoken in Guyana? Are we allowed to simply compare phenomena from such languages? (The question does not imply a judgement of value, it is a matter of ‘Ausbau’ – although some linguists might be prone to suspect ‘political incorrectness’.)
2. “Pure” systems might be an invention of linguists. – In the Bühlerian view, langue has not only to be seen as a scalar phenomenon (visualized in the horizontal dimension of figures 1.1 and 1.2). At the same time, we should realize that a language system exists only in the “heads” of individual speakers, that these speakers move around and that, above all, more often than not they are bi- or even trilingual, giving rise to phenomena such as language contact, the mixing and interference between languages (→ art. 115), language obsolescence (→ art. 118), Pidgins (→ art. 116), Creoles (→ art. 117), and the like. Then, the question to be asked is: do there exist “pure” language systems? Could it be that such pure systems are nothing but idealized abstractions based on the observations of a particular human species called ‘linguists’?

3. Categories are not cross-linguistically comparable. – Children acquiring their first language begin with holophrases. Belonging to a zero category, it stands to reason that they cannot by definition be attributed to one of the grammatical categories (although parents may have different ideas on the topic). Then, in a second step, the child makes what is called “two word utterances”, thus discovering at the same time the blessings of rule-governed combining. However, the resulting two categories must not be identified with ‘nouns’ and ‘verbs’, at the most they might be considered as something like pre-verbs and pre-nouns. Conceptually speaking, they might correspond to the opposition between discrete and continuous entities, e.g. ‘objects’ and ‘persons’ as opposed to ‘states’, ‘events’, ‘properties’.

Only after this second step implying two different categories of signs does the rest of the categories used in adult speech emerge little by little. And here, again, things get complicated: The emerging categories are not identical from language to language, with the speakers of some languages using e.g. ‘adjectives’, ‘adverbs’, ‘articles’, ‘enunciatives’, ‘noun class markers’, while others do not (→ e.g. art. 38). And even if they were to develop similar categories, e.g. a verb class, it might be rather difficult to compare them.

One further problem is that the number of categories ascribed to a language may differ according to the model of grammar applied for the description (see above § 2).

Let us take the example of infinitives. Non-finite forms are opposed to finite ones. A finite form in, say, ANCIENT GREEK is specified according to

(a) three persons,
(b) two numbers and what remains of a dual,
(c) four moods (indicative, subjunctive, optative, and imperative),
(d) three diatheses (active, medium or middle, passive),
(e) five tenses (present, imperfect, aorist, perfect, pluperfect),
(f) finally affirmation and negation.

Greek “infinitives” only lack person, number, and mood. They allow all three diatheses, four of the five tenses, and affirmation/negation. The only difference between non-finite forms termed ‘infinitives’ and equally non-finite ‘participles’ is that the participles, which at the same time partake in the nominal system, allow (nominally marked) number.

Now what is called ‘non-finite’ in a language like ANCIENT GREEK would be rather “finite” in the verbal system of, say JAPANESE. Given such intrinsic differences (as to similar questions cf. Croft 1990: 11–18; → art. 28, § 3), are we then entitled to compare ANCIENT GREEK with JAPANESE, let alone Greek verbs with Japanese ones? What would be the necessary tertium comparationis (→ art. 100). And what about MODERN GREEK and other languages of the Balkans whose speakers...
have totally disposed of their ‘infinitives’ in the meantime? (→ art. 108). – While some typologists become more and more aware of the problems raised here (cf. e.g. Anward & al. 1997; → art. 54), others consider it to be less important: e.g. Isaak Š. Kozinski in art. 26, § 3.1.

4. The bias of ‘traditional’ analysis. – If we start from socially ratified utterance types as being one of the privileged goals of language production, and if language systems force us to break down complex utterances into units called ‘propositions’ (see above § 1.1), the usual “logically” inspired approach attributing reference to elements of the noun class, whereas verbs would predicate (→ art. 39), will have its risks, too.

A holistic approach would give reference first and foremost to utterances and propositions representing e.g. an event in its totality (→ art. 37, § 1). A well-known example of this kind of approach was given by the way Paul J. Hopper and Sandra A. Thompson looked at the concept of ‘transitivity’ (1980; cf. Rastier 1998: 447). The advantage of this kind of view becomes evident when we analyse languages such as FINNISH or GUSILAY, the latter a language belonging to BAK-group of the NIGER-CONGO family.

While analyzing our Standard Average European languages, we became accustomed to looking for the expression of ‘aspect’ – that is: of something undoubtedly characterizing an entire situation or a state of affairs – in the verb, i.e. in the predication. FINNISH imparts this task instead to the noun having the function of the direct object: in case the situation to be expressed is thought of as perfective, the object appears as an accusative; if the situation is seen as imperfective, the partitive has to be chosen instead. Hence, an element of a proposition that traditionally has been seen as referring is responsible for part of what normally would be conceived of as predicing.

In GUSILAY something similar happens with the pronominal element expressing the agent of a proposition: in its reduced form it marks the imperfectivity of the proposition, in its full form perfectivity (Tendeng 2000).

A similar behaviour of pronouns is reported for HAUSA (Kraft & Kirk-Greene 1990). As was shown by Nicholas Evans (1985), in KAYARDILD all non-subject dependents of a verb carry modal case marking (usually in addition to their regular case marking) which carries tense/mood information for the clause. Andrej Kibrik mentions the case of XERENTE where nominative pronouns mark evidentiality, aspect, and intensiveness of action (→ art. 84, end of § 6; Kibrik is drawing on Harold Popovich). Rachel Nordlinger mentions as further candidates for such features PITTA, GURNU, BAAGANDJI, YAG DI and IAI (cf. Nordlinger & Sadler 2000).

Interestingly enough, Paul J. Hopper and Sandra A. Thompson, while being ‘progressive’ in taking into account discourse, go one step behind former achievements in a contribution where they again link the noun/verb distinction to the discourse functions of referring and predicating [1984].

This example is likely to show one more risk implied in looking in a traditional way at phenomena which could be typologically relevant. Not only may verbal systems (and nominal ones) differ from language to language as regards the extension and the intension of their categories (see above § 3.3); there are even verbal systems doing seemingly strange things, and the same thing holds for nominal ones (→ art. 40). Eventually both of them can collaborate in fulfilling certain tasks, for instance in referring on the level of an entire proposition.

In addition to the problems arising from the different scope of language systems depending on the utterance types we take into consideration, there are at least three further ones:
5. **As a process, a language system implies historical depth.** – Since grammaticalization – as a dynamic process creating new devices and categories from older ones – has become ever more important not only in linguistic theory in general, but also in language typology (→ art. 113): are we then entitled to consider as being on a par e.g. the **ATHABASCAN** language **SOUTH SLAVE** with **ROMANCE LANGUAGES** such as **SPANISH**, **FRENCH** or **PORTUGUESE**, i.e. languages endowed with an ample written documentation of language change encompassing the span of about 2,000 years? This is why theorists of grammaticalization, while working with a representative language sample taken from the languages of the world (→ art. 33; as to the factor of historical depth, cf. ibid. § 3.1; art. 38, § 4), tend to draw on European material (thus coming from languages that do not necessarily belong to their corpus into the bargain) as soon as ‘typical’ grammaticalization processes have to be documented (e.g. Bybee & al. 1994: 68f.).

At the same time, this kind of view introduces history into typology. This aspect is all the more important as a language system of necessity has historical depth: It encompasses the solutions of the past as well as those of the present and the future (e.g. “the butcher’s shop” vs. “the shop of the butcher”). They belong to different utterance types, they may belong to speakers of different age, and to the different ‘stylistic’ levels that make up *langue* in the Bühlerian sense.

6. **Criteria for typologizing.** – It has already been mentioned that normal human beings know and currently use text types and their names in everyday communication (see above § 2). They even know – by intuition – the criteria according to which such utterance types tend to be named (Raible 1988). Now what are the criteria a typologist should rely upon? Are they self evident? Should it be the medium length of words in a language, the number of color terms, the number of lexical items available for time distinctions or for orientation in space? Or should we better classify languages according to the existence of a verb for the concepts TO BE or TO BECOME? Should we copy Dante who, at the beginning of the 14th century, in his *de vulgari eloquentia*, classified the ROMANCE LANGUAGES according to their expressions for YES into *(h)oc, oïl, and si(c)* languages, a kind of classifying even accessible to ‘normal’ human beings – especially as there exist quite a lot of similar cases. Should we rely on one single criterion or should we take into account a whole series of features? In short: where do such criteria for the definition of language types come from that might be self-evident and could be acknowledged by the totality of linguists? Even if categories in two languages were on a par (see above point 3): what would be the parameters to be chosen for comparison?

7. **Typological vs. areal vs. genetic relationship.** – A last problem to be mentioned in this context is the fact that typology has to take into account not only ‘History’ (witness the ‘historical depth’ of § 3.5 above, or the socially ratified utterance types as typical outcomes of diachronic processes), but also the factors ‘Area’ and ‘Genetic Relationship’ (cf. e.g. Croft 1990: ch. 6; → articles 105; 106; 108; 109): Indeed, an ‘eternal’ topic in the pertinent discussion is the question whether genetically related languages can be different on the level of typology.

### 4 Universals as a solution to problems raised by typology

There are two ways to tackle the problems outlined in the preceding section. One could take into account what typologists have done in the past, and, in case they were aware of the problems, how they mastered them.
Another way could be a consideration of the general aspects behind the – seemingly most difficult, if not aporetical – situation described. The insight that possibly could be gained by doing so could show us either a sure way out of a situation that seems to be without issue, or, in the worst case, perhaps even convince us that there is no escape at all. Here the second way will be chosen.

4.1 The basis of understanding and the hierarchy of levels

It is well known that all linguistic data are interpreted data – ‘raw’, uninterpreted data simply do not exist in the domain of language. Alphabetic written language, for instance, has passed through a writing system that prescribes word boundaries, orthography, and a punctuation that needed understanding and the syntactic analysis of what was to be written.

Unfortunately, the same thing holds for taped live discussions – irrespective of our being active participants or linguistic observers. We have to apprehend and to understand what is being said. This holds all the more for transcribed texts. In order to take just one example: witness the intricate problem of silence in a dialogue. To which one of two or more persons engaged in a dialogue or a polylogue are we to ascribe silence? (The problem is far from being trivial since silence conveys meaning; cf. Meise 1996; Bakhtin 1979/1986: 68ff.). Transcribing taped language is a hermeneutic act par excellence.

Now what is the basis of our interpretations? A good example is provided by the way we process visual information. Looking out of a window into a garden and onto a neighboring forest, I think I am perfectly aware of where I am and of what I see. Nevertheless, the sheer quantity of visual information makes it impossible for me to truly see, i.e. to consciously perceive all and in any detail. What I am conscious of is only a quite small part of the overall information. This is why any illusionist or magician whatever has a more than easy job with all of us, although we perfectly know that they cheat us.

What we see is first of all what we expect to see, and perhaps a small amount of truly new information, for instance something that ‘is going on’ or ‘is happening’ – in terms of Gestalt psychology this is the known phenomenon of the ‘Gestalt’ that always appears before a ‘Hintergrund’ (the figure - ground pattern). All the rest is not seen as tokens, but – at the most – as types. The reduction of enormous amounts of information to ‘communicative genres’, ‘types’, ‘scripts’, ‘frames’, ‘schemes’, ‘patterns’, ‘roles’, is the secret of human information processing (→ art. 3, § 2.1 as to the implications for social action and our understanding of ‘world’; as to the role of ‘contextualization’ → art. 35, § 4.3).

Apart from proper nouns, the signs we use in language are types, too. This is why we can even handle complex textual information, interpreting and understanding it in the framework of a certain utterance type fixing for instance the truth values that will hold (the relation to ‘reality’ is thoroughly different in a novel or a tale as opposed to a judgement or a balance, thus showing that the utterance type has consequences for the interpretation of its components.)

In a more general way, this can be formulated as one of the central insights of phenomenology as outlined e.g. by Edmund Husserl in 1901. Husserl speaks of the relationship holding between Parts and Wholes (<sup>4</sup>1928: § 24). In our perception, there is an ascending hierarchy (‘Stufenfolge’) of partial wholes (‘Teilganze’), each of them being a whole as concerns the level(s) beneath and only a part with respect to the level(s) above. In this hierarchy (relatively) stable and (relatively) unstable contents always blend into larger partial wholes giving rise to a surplus called ‘Einheitsmoment’ in the wording of Husserl, or to a ‘Gestaltqualität’ – this is the term used by Christian v. Ehrenfels, who ‘invented’ Gestalt theory in a seminal article published in 1890. This unifying element has its base in a relationship of one-sided or mutual foundation (‘einsel-tige’, ‘wechselseitige Fundierung’) between the parts and the newly emerged whole. (A head/modifier-relation can be seen as a relation of ‘one-sided foundation’, the two parts of an if-then-correlation would be an example of the relationship called ‘mutual foundation’.)
In a quite abstract way:

“Stücke sind wesentlich mittelbare oder fernere Teile des Ganzen, dessen Stücke sie sind, wenn sie mit anderern Stücken durch verbindende Formen zu Ganzen geheftet sind, die selbst wieder durch neuartige Formen Ganze höherer Ordnung konstituieren.” (Husserl 4 1928: 280.)

In the meantime, this view has been amply confirmed by all we know about the neural basis of visual perception. It is clear that the same view can be applied to speech production and perception (cf. e.g. Spinicci 1992; MacKevitt (ed.) 1996; Hubel 1995; Milner & Goodale 1996.). This approach had, indeed, an immense impact on structuralism (cf. e.g. Holenstein 1976: 13–55).

4.2 A phenomenological perspective

The phenomenological perspective is relevant to our problem in a twofold way. (1) In understanding some of the mechanisms in human language processing we may regard as universal (see below § 4.4), and (2) in understanding the mutual roles of typology and universalism in an overall conception.

The second aspect still needs a closer look. The principle holding for visual perception – or for speech perception and production – starts from the assumption that there is a sequence of levels, with some units on a lower level being integrated into one new unit on a higher level, giving rise to the surplus called ‘Einheitsmoment’ or ‘Gestaltqualität’. When we master a language, the more the levels under discussion are inferior, the less are we aware of the processes going on. Only when learning a foreign language – which slows down all the otherwise automated tasks – do we become again aware of such inferior processes of integrating parts into wholes or, in speech production, of taking conceptual wholes to linguistic pieces. It is clear that the relation holding between such parts and wholes can be described as ‘parts having a function (or a role) in a larger whole’.

Now, whenever we try to theoretically understand a complex matter, we use an approach similar to the one described – with one crucial difference, though: The more we ascend on the scale of theoretical levels, the less are we aware of the existence of such levels. (Some of us might even deny the possibility of their existence.) Witness the problems normal human beings have with the concept of langue (see above § 2), or witness the endeavors of the Bourbaki group of mathematicians to create a level encompassing different branches of their discipline.

The advantage is, nevertheless, that once we have found such a level encompassing units of a lower level, we are able to gain what is called ‘insight’, for instance the insight into certain principles holding for a whole range of phenomena one would otherwise have seen as being different. An example that is well-known among linguists are politeness phenomena. Although their manifestations differ from language to language and from culture to culture, they can be mapped onto universally holding mechanisms of facework (Brown/Levinson [1974] 1987 following Erwing Goffman). And very often they even leave deep traces in grammaticalization and in grammar (see below § 5.2.1).

4.3 Concepts vs. Significations

In the eyes of Aristotle, this search for universals was, incidentally, what made the difference between a true ‘science’ (epistemé) and a discipline that is only opinion-based (doxa): a science, apart from being reasonable, has to have a subject common to mankind and to rely on principles holding for all of us (Posterior Analytics, c. 33; 88 b 30ff.). This is why, instead of writing some more artes grammaticae, the mediaeval Schoolmen called Modists, starting from the observation of Latin, eventually created what can be seen as the outlines of a true grammatica universalis, largely transcending the original conception of a description of parts of speech by the foundation of a new, additional syntactic component termed ‘diasynthetica’ (Raible 1987).

One of their special merits in this field is the clear distinction between the domains of CONCEPTS and SIGNIFICATIONS: concepts, with their specific modi intelligendi, originate by a first act of mental imprinting in perception (prima impositio), whereas signific-
The Modists established a clear distinction between a realm of concepts supposed to hold for all of us, and the domain of significations, linked to *voces*, i.e. to signs used by the speakers of historical languages.

Another achievement of Modist thinking was a characterization of parts of speech we would nowadays call prototypical. They all have a key function – nouns expressing e.g. the *modus esse*, i.e. the mode of things that exist, verbs the *modus fieri*, i.e. the mode of processes. But given the multifold character of reality and the limited number of parts of speech, many contents are grammatically treated “as if” they belonged to a certain category – like LATIN *nemo* or *nullus* signifying ‘no one’ while having the linguistic form of something that exists, i.e. the *modus esse*. Ideas similar to Modist thinking may be found e.g. in Croft 1991: 101ff.; → art. 54.

The fact that for instance speakers engaged in verbal periphrases (like SPANISH *sigue hablando*, ENGLISH *I will come*, FRENCH *j’ai fini de parler*) – well-known for eventually transforming verbal systems – throughout the world draw on the same concepts, does indeed speak in favour of basic concepts common to all of us: **COME**, **GO**, **BEGIN**, **START**, **CONTINUE**, **TERMINATE**, **GET**, **TAKE**, **GIVE**, **MAKE**, **HEAR**, **SEE**, and the like. (cf. e.g. Raible 1996; Wierzbicka 1996; Casad (ed.). 1996; → articles 85; 86; 87; cf. below § 5.2). Such concepts – apart from ‘hear’ and ‘see’ they are accessible as well to deaf or even blind children – make possible the ‘bootstrapping’ necessary to the acquisition of our first language, be it as speakers or as signers.

Only later in the process of ontogenetic does the evolution of our conceptually and our linguistically based systems become more intertwined (Vygotskij 1962), complicating things a lot. Nevertheless, there is good neurological evidence for the separation of what is popularly called ‘thought and language’ (see below § 4.5).

Hence, the key for the problems outlined above in § 3 could lie in looking for and, above all, in finding the conceptual level(s) beyond the *langue*-level of one or more historical languages. It is, among other things, the crucial question of the *tertium comparationis*.
4.4 Tertia comparationis: What is common to languages?

Given the problems shown in § 3, it goes without saying that any ‘reasonable’ typologizing – that is taking into account the caveat put forward by Kant, cited in the epigraph to this article, and taking into account the criteria Aristotle formulated for the difference between an ‘art’ and true ‘science’ (§ 4.3) – has to start from a tertium common to more than one language. In the wording of Wilhelm von Humboldt:


Here usually two approaches are distinguished:

(a) The construction of a tertium $t_a$ for the languages $L_1^a \ldots L_n^a$, the construction of a tertium $t_b$ for the languages $L_1^b \ldots L_n^b$, etc. Then, on the basis of $t_a$ and $t_b$, the construction of a tertium $t_{ab}$ common to both groups of languages, and so on. This would be the classical way of induction.

In case we confined ourselves to a tertium holding only for ‘partial’ systems of languages $L_1^a \ldots L_n^a$ instead, we would have to make the tacit assumption that we know what the partial systems common to all languages are, that is we would shift the problem, begging the question into the bargain.

Partisans of this approach usually refrain from formulating ‘universals of language’ because, in their opinion, the empirical basis is too small. At any rate there is not the slightest basis for a distinction between e.g. ‘absolute’ vs. ‘statistical’ universals (as originally proposed by Greenberg) in this approach (→ e.g. art. 26, § 3.1).

(b) Partisans of the other approach are starting, in an axiomatic way, from what is thought to be common to all languages, i.e. from essential universals of ‘language’. These are properties no language could lack without losing its status as a language. ‘Axiomatic’ is used here in the sense it originally had in Ancient Greek mathematics (Szabó 1960); an assumption I start from (Greek axióo means ‘in my opinion this is true’), not the eternal truth of the well-known God’s Truth discussion in linguistics.

It goes without saying that plausibility is not harmful in this case; this is why we draw on the (phenomenological) insights gained in the discussion of the principles of human perception (see above § 4.1).

(c) It is clear that both ways, the inductive and the deductive one (one of its forms is called ‘onomasiological’), may be – and as often are – combined in what Charles Sanders Peirce called ‘abduction’. Peirce aimed his theory of abduction (“studying facts and devising a theory to explain them” – Collected Papers 5.145; 171) to be a “logic of discovery”. Good examples of this third way are Hansjakob Seiler and Gilbert Lazar (→ articles 27; 28).

As to the second way to find tertia: In a famous article of 1960, Charles Hockett outlined a series of principles that could in part be regarded as such essentials in the sense of (b). In 1974, Eugenio Coseriu has formulated five essential universals in a perhaps less known contribution.

<table>
<thead>
<tr>
<th>HOCKETT</th>
<th>COSERIU</th>
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<tr>
<td>1 Semanticity</td>
<td>Semanticity</td>
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<tr>
<td>2 Interchangeability</td>
<td>Otherness (‘Alterität’): Language is directed to others</td>
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<tr>
<td>3 Productivity</td>
<td>Creativity</td>
</tr>
<tr>
<td>4 Historicity</td>
<td>Languages are subject to change</td>
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<tr>
<td>5 Common Channel</td>
<td>Exteriority: Language materializes, it has to be ‘exteriorized’</td>
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A sixth essential, having an intermediate position between the first group and the following one, was suggested in 1988 by Wulf Oesterreicher.

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<th>HOCKETT</th>
<th>OESTERREICHER</th>
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<tr>
<td>6</td>
<td>&quot;Discoursivity&quot;: Something we want to ‘exteriorize’ has to be broken into pieces and to be linearized</td>
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To the five essential universals we can add some further ones, this time not principles whose absence would deprive language of its essence. Interestingly enough, human languages share most of them with genetics (→ art. 8, § 4.2).

<table>
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<th>LANGUAGE &amp; GENETICS</th>
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As one can easily see, Principles 6 through 16 can – to a large extent – be interpreted as the more concrete shape Principles 1 to 5 may take by implementation.

Three examples will show different aspects arising from these principles and their combination.

### 4.4.1 Accentuating Semanticity

The principle of Semanticity (1), together with the principle of Privileged Units (16), makes clear why certain signs – simple and complex ones – have a particular status: they correspond e.g. to perceptually privileged types of designata. On a lower level of hierarchy, such privileged signs correspond to types of discrete entities (e.g. objects, persons), taking shape in word-signs and in features as often linked to them: perfectivity vs. imperfectivity, telic vs. non-telic, stative vs. non-stative, etc.; on a higher level, they re-

Hockett still adds Displacement, meaning what Karl Bühler termed ‘situationsent-bundenes Sprechen’, i.e. one of the many differences between human and animal language (animals do not communicate about past or future, at least not in the way humans do).

Neither Principle 7 (Double Articulation) nor Principle 8 (Arbitrariness of signs) are essential properties of a language on the level of the essentials 1 to 5. As regards Arbitrariness, the example of sign languages shows, at least in a first phase, a considerable amount of iconicity (→ art. 10; as to iconicity in general → art. 30) that tends to dwindle, though, when a sign language develops into a more complex language system (like e.g. American Sign Language [ASL] with its origins in 18th century French Sign Language).

Principles 11 to 16 are – theoretically – based on the considerations made on the subject of Parts and Wholes, implementing the Discoursivity (Discreteness) principle (6). Their relevance to linguistics will be self-evident. Again, they hold for both linguistics and genetics.
late to events, situations, i.e. to types of configurations of persons and/or objects, linked for instance in a common activity. Linguistically, they are grouped around the highly unstable and unsaturated category *verb*. On a still higher level, we encounter utterance types (above § 1.1) as instances of relatively stable units.

On the two last-mentioned levels, events and utterance types, terms such as *proposition, sentence, situation, Sachverhalt*, speech act, face threatening act, scheme, frame, script, actancy, valency, semantic role, θ-role, come into play. Interestingly enough, most of them are units considered as basic by text theory and psychological studies of text production and text processing (→ art. 11, § 2.2).

### 4.4.2 Accentuating formal aspects

The essential of Discoursivity (or Discreteness of units in the wording of Hockett), together with the essentials of Otherness and Exteriority, relate, among other things, to the principle of the two Kinds of Signs (11): One of the fundamental problems to be solved in speech communication is that all a speaker intends to communicate has to be broken down into smaller signs, and that these discrete units have to be linearized in the act of speaking. This has to be done in a way that allows for hearers (the representatives of Otherness) to reconstruct the intended whole from a series of scattered parts. Since only two neighboring elements can be immediately merged, and since this is certainly not sufficient to construct complex signs by combinatorial rules (witness the phenomenon of discontinuous linguistic entities or the case of the FRENCH judgement, above § 2), there exist two kinds of signs (or sign components): those that directly transport pieces of semantic information, and others whose primary task is putting together, on the different levels of hierarchy, linearized parts that belong together.

Linguistically, this gives rise to the whole apparatus of syntax, word classes, morphemes, syntags, clauses, constituency, dependency, congruence, agreement, government, binding, heads, dependents, head-marking, dependent-marking, modifiers, modi significandi accidentales, and the like.

### 4.4.3 Other aspects

The principle of Creativity or Productivity (3) is implemented, among other things, by the principles of Reference to Types (10) and Combinatorial Rules (14), such that – together with the rest of the principles 11 to 16 – the outcome will always satisfy principle 15, with the resulting Whole being more than the sum of its Parts.

In another sense, these principles manifest themselves in a compartmentalization of linguistic tasks. The principle of Double Articulation (7) allows us to – theoretically – distinguish Phonology from all the rest. The principles of ‘Discoursivity’ (6), of Otherness (2), and of Reference to Types (10) lead to socially ratified utterance types as well as to grammatical paradigms.

### 4.5 Evidence coming from neighboring disciplines

If it were only for these principles – the five essential and the eleven implementational ones – languages could and would be far more different than they actually are. One reason why they are less different than should be expected could be that some of these principles are ‘wired’ into our brains in a specific manner. This should not come as a surprise: evolution tends to draw on strategies that have proved successful. This is why the ‘phenomenological’ principle of Hierarchy (13) may be seen as holding for all kinds of perception (cf. Riedl 1989: 220–43; see above § 4.1).

As regards word classes for instance, the opposition between ‘verbs’ and ‘nouns’ (→ art. 38) – irrespective of the differences we encounter in the systems of different natural languages – corresponds, indeed, to an opposition between entities our conceptual apparatus is programmed to recognize (see above § 3). The area of our brain named after Carl Wernicke is above all devoted to assigning to and retrieving meaning (concepts) from signs that refer to types of discrete entities. Concepts referring to types of situations and actions are linked, by an associative network, to the area named after Paul Broca (→ art. 9).
When we speak, the task of the Broca area is to break complex ideas (corresponding for instance to what we would call a ‘proposition’ or even to larger entities) down into smaller units which have to be linearized and grammatically tagged in real time; when we hear, this area does the real time analysis (“parsing”) of the grammatically tagged incoming series of signs and the successive synthesis into a coherent structure, to which a complex meaning can be assigned.

As is shown by event-related brain potential (ERP) measures, the two phases can be clearly distinguished by changes in potential (typically 200 and 400 msec after the onset); this holds true also for a third phase necessary in unclear cases where a top-down reanalysis has to be carried out.

Each one of these parsing phases, initial bottom up and secondary top down analysis, is subserved by distinct brain systems (cf. Friederici 1997; 1997a; Friederici & al. 1998; Friederici & al. 1999; Hahne & al. 1999; Meyer & al. 2000.).

There is cerebral evidence not only as regards the different content types – ‘verbs’, types of ‘nouns’ being, e.g., retrieved from different brain areas – but also for the cerebral difference between the concepts and their linguistic implementation, reflecting the Modistic distinction between ‘concepts’ and ‘significations’ [above Figure 1.3]; cf. Grabowski & al. 1998; Tranel & al. 1997 and 1997a; Damasio & al. 1993; 1992; Friederici & al. 2000.

In the case of numbers and their cerebral representation, there is evidence suggesting that animals, young infants and adults possess a biologically determined, domain-specific representation of number and of elementary arithmetic operations based on language-independent concepts. This is indirectly confirmed for instance by Susan Schaller (1991): her deaf-mute pupil dubbed Ildefonso who – at age 27 – had not even come into contact with sign language, let alone phonetic or written language, had no problems with elementary arithmetic and with number concepts. As is also well-known, exact arithmetic is, on the other hand, acquired in a language-specific format transferring even poorly to a different language (Dehaene & al. 1998; 1999).

In order not to suggest too close a link-
The generally indirect evidence we encounter in this domain has its consequences. Whenever a neurophysiologist working on the level of neural tissue is asked for her or his opinion about the basis of cognitive processes, one is likely to hear an agnostic non liquet or “we don’t know anything for sure”, while neuroscientists or neuropsychologists – with their top down view – are much more prone to theorizing on the basis of their observations and findings. A mediation between the two perspectives should always take into account the above-mentioned Principle 15 (in the domain of Life Wholes are always more than the sum of their Parts; cf. above § 4.4; cf. also art. 8, § 4.2 as regards the bridging between ‘matter’ and ‘mind’).

5 Advantages of the universalist view

What is the answer given by the universalist approach to the problems raised in § 3? In spite of the evidence coming from adjacent fields of research (aphasiology, neurolinguistics, genetics; see above § 4.5), the considerations outlined in § 4.4 seem to be rather general. Of what use are they, then?

The use lies, first of all, in the possibility of epistemologically classifying approaches to language typology and to language universals, and recognizing what their respective bases are. It permits us, then, to formulate tasks to be fulfilled and problems to be solved, and hence the comparison of the different implementations of an identical task in different languages. This is to say that it provides the necessary tertium.

5.1 Enhancing the formal aspects

Noam Chomsky’s approach – as instantiated in the Minimalist Hypothesis – starts from a concept of the modularity of Mind, separating the semantico-conceptual module from the formal-syntactic one. His approach emphasizes the aspects outlined above in § 4.4.2. It starts from the assumption of a universal Logical Form already ‘wired’ into the brains of children. Differences between languages are assumed to result from the fact that the principles presupposed by Universal Grammar are not equally strong in the input coming from different languages. This leads to different linearizations and types of expression once the Logical Form has to be transposed into a real chain of phonological, lexical etc. items (→ art. 24).

In a certain sense, this echoes the discussions on word order in French Enlightenment. Since French word order with the subject in the first place and the predicate following was conceived of as the universal logical form (inspired by Aristotelian logic), some put forward the idea that e.g. Cicero, before speaking or writing a sentence in the Latin way, had to have conceived of it in the French one (→ art. 19, § 3.2.2).

Another approach was proposed by Klaus Heger. It is based on three principles: An ascending scale of ever more complex signs (‘Signenräume’), a corresponding dynamic conception of signs not restricted to words, finally a form of representation called ‘Aktantenmodelle’. Their canonical form is a two place predicator that attributes a ‘relator’ to an ‘actant’. (In case the relator has more than one place, the number of actants – under the heading of a pro-actant – may be augmented.) Relators can only be continuous concepts, the most important ones being the temporal and the causal relator. It can easily be seen that Heger was not inspired by traditional Aristotelian logic, but by predicate logic or its linguistic homologue, dependency grammar.

The ‘noematic’ tertium created by Heger allows the analysis and the description of entire texts, not only propositions, thus encompassing far more than the Minimalist Hypothesis. Nonetheless, it was only designed as a tertium for the comparison of languages, with Heger never claiming a transitus ab intellectu ad rem in the sense that all – or even some – of its components had a basis in the psychophysical ‘reality’ of speech production and reception (→ art. 25). It is evident, though, that the conception is close to universalist positions, and it does not come as a surprise that it is echoed, e.g., in the UNITYP or the RIVALC approaches (→ articles 27; 28).
5.2 Starting the conceptual way

Universalistic approaches may differ in the importance they attribute to the principle of Semanticity. Speakers start from the ideas, the concepts or intentions they want to communicate, and hearers retranslate the chain of sounds and words they perceive into ideas or concepts. Why, then, not start from the conceptual side? Most radical in this sense is William Croft (1991). This gives function a most prominent place in typology. One major advantage is that in doing so we may define, as tertia, identical tasks languages have to cope with. One of them will serve as a first example.

5.2.1 Tasks on the level of propositions and above

Both the partisans of an inductive way – as represented e.g. by the well-known contribution Joseph H. Greenberg made in 1963 (→ art. 23) – and the followers of axiomatic views have underlined the importance constituent ordering has in propositions. What has been considered above in § 4.4 shows that in doing so, typologists implicitly or explicitly start from the following assumptions:

1. that there is a Privileged Unit (Principle 16) called proposition;
2. that it is essentially made up of units centering around two basic Word Classes (Principle 12), viz. nominals and verbals;
3. that a verb is an unstable, ‘unsaturated’ unit having valency, thus enabling a certain number of nominals to be – conceptually and linguistically – linked to it;
4. that valency may range from 0 to 3, depending on the verbal concept at stake, and that bi-valency is a frequent constellation;
5. that there are Combinatorial Rules (principle 14) allowing for the partial wholes or components – dubbed e.g. X,Y,Z,V – to merge into a higher unit thanks to Signs Organizing Signs (12) that mark the syntactic role they play in the higher unit;
6. that, given the principles of Semanticity and of Signs Referring to Types (Principles 1 and 10), there are conceptual roles corresponding to the syntactic ones, yielding concepts such as actor, patient, beneficiary, etc.

This is tantamount to saying that this kind of investigation, while often thought to be purely ‘typological’ or even ‘descriptive’, is necessarily based on a whole series of (unavoidable) universalist prerequisites.

Based on the common tertium constituted by these assumptions – essentially a tertium linked to what linguists call the task of forming propositions – one can, indeed, define types: first of all types according to the linear order the constituents \{X,Y,Z,V\} have in (certain kinds of) propositions. This alone has led to the formulation of a series of ‘implicational’ universals put forward by Greenberg and others (→ articles 23; 64).

But, above all, thoughts given to this topic and successive observations across a great variety of languages led to types according to the mapping of conceptual roles onto syntactic ones, and to the use that is made to this end of Signs Organizing Signs (Principle 11; morphemes, position).

That this mapping, together with constituent ordering, must be important is shown by the fact that very often speakers of languages have special means permitting them to change both this order and the mapping of conceptual roles onto syntactic ones that is linked to it. The respective devices are called diatheses: like ‘active’, ‘passive’, ‘middle’, ‘antipassive’, ‘causative’, ‘experiencer-diathesis’.

While implementing the same conceptual ‘roles’, languages may considerably differ in the way they mark and order the constituents of propositions. In this context, typologists most often speak e.g. of ‘accusative’, ‘ergative’, and as often ‘mixed’ languages (→ art. 26, § 3.2; art. 28, § 4; articles 37; 125).

There is an immense body of linguistic data and a great number of studies by now that are devoted to the mapping of conceptual roles onto syntactic ones. The only problem is that, whereas syntactic roles are easy to define given their limited number and definite formal properties, conceptual
roles, their number and their definition tend to be subject to discussion among linguists (cf. e.g. Croft 1991: 155ff.). Here the idea of prototypicality proves helpful, as does taking into account the meaning of the respective verb (cf. Koch 1981). The broad activities on this sector manifest themselves in the present handbook: → e.g. art. 2, § 3.1; art. 26, § 2; articles 28; 37; 66–70.

This example demonstrates the importance typologists attribute to a typology based on the tertium constituted by the task of forming propositions. Speakers of languages have indeed multifold, often grammaticalized possibilities of ordering the elements in propositions. To these one may add the technique of clefing, allowing, among other things, a freer ordering of elements where the order of actants is relatively fixed.

Another example on the level of propositions is studies on relativization as carried out e.g. by Edward Keenan and Bernard Comrie (1977) or Christian Lehmann (1984). Contrary to the opinion of some scholars, their basis is not only semantic, but also conceptual.

If we ask ourselves why speakers create so many different techniques, the answer is that phenomena such as František Daneš’s Functional Sentence Perspective are not ends in themselves, but one of the means allowing for speakers to link a sequence of propositions in a way that serves the interests of hearers and speakers (→ art. 45), ‘Pragmatic’ and ‘textual’ issues add to the purely ‘syntactic’ ones, providing us with the means to linguistically express ‘Relevance’ (Sperber & Wilson 1986/1995). Propositions are, indeed, only partial wholes having themselves a function in higher units that originate by linking and merging propositions into utterance types (see above § 2).

Another universal cognitive prerequisite permanently translated into linguistic forms is a scheme first proposed by James Harris (Harris 1751). Humans use it in order to conceptualize another view on ‘actions’, viz. ‘action’ conceived of as a sequence of at most five phases. It starts with a PRE-INITIAL phase followed by the INITIAL one; next are the MIDDLE or PROGRESSIVE phase, i.e. an action just going on, then the TERMINAL phase, that is an action coming to its end, and finally the POST-TERMINAL phase, the concept of an action seen from beyond its end.

Now speakers tend to highlight one of these phases in their propositions, and according to the phase that is being expressed, the verb forms can be attributed to different AKTIONSORTEN. Since they were first described for POLISH by Sigurd Agrell (1908), there exists an enormous amount of terminology in this sector, more often than not even mixing up ‘aspect’ and ‘Aktionart’ (there may be affinities between aspects ‘imperfectivity’ and ‘perfectivity’ ] and Aktionsarten, but the two categories should be kept distinct; cf. for an overview Iturrioz 1993).

All five phases may be expressed either by ‘simple’ verbs, by prefixes, preverbs etc. – or by verbal periphrases which are themselves common starting points for grammaticalization: with the pre-initial phase giving rise, for instance, to new future forms, whereas the post-terminal one usually ends up in new perfects (cf. for instance Bybee & al. 1994; Lehmann 1995: 29–32.).

In this context, speakers all over the world tend to use the same verbal concepts in order to paraphrase the respective phases (cf. above § 4.3): for instance epistemic or modal concepts (WILL, SHALL, TO HAVE TO), verbs of movement (TO GO) in order to express the pre-initial or the terminal phase (like the FRENCH type je vais venir, je viens de chanter; cf. Radden 1996 for an overview over COME and GO); the middle or ‘progressive’ phase can be expressed by concepts such as TO BE, TO STAND, TO LIE, TO CONTINUE, plus a nominalized verb form such as in SPANISH está cantando, sigue cantando or its ENGLISH equivalent s/he is singing; for the terminal phase, we find paraphrases such as SPANISH acaba de cantar, literally ‘s/he terminates singing’; the post-terminal phase is usually paraphrased by concepts such as TO HAVE, TO BE FINISHED WITH (cf. the LATIN type Caesar legiones habebat coactus ‘for Cesar the legions were contracted ones’; we may find as well equivalents of the FRENCH type j’ai fini de faire qch that gave rise to perfects and perfectives in French based CREOLES; cf. Michaelis 1993).
An equally well-known case is the concept TO TAKE frequently used as the first element in verb series in order to express the initial phase (often we have to take something before we can do something with it). This occurs even in languages to which verbal series in the strict sense are alien such as to most European ones: cf. the SPANISH type tomo y me voy ‘I start going’ (literally ‘I take and go’), a type of expression which is not restricted to SPANISH but can be found in many European languages as was shown in great detail by Coseriu (Coseriu 1966).

A last example of a both conceptual and functional approach, this time based on both pragmatics and concepts, are politeness phenomena. Here, the universal mechanisms are identical: the dignity of the person addressed has to be augmented in the eyes of others (“positive face” in terms of Brown/Levinson 1987), whereas the speaker himself is submissive (e.g. “your humble servant”); at the same time the act of intrusion into the personal sphere of the person addressed has to be mitigated, usually by all kinds of indirectness, e.g. by special moods (“negative face”; → art. 35, § 3.5).

SPANISH and its LATIN AMERICAN varieties are good examples of one of the effects both strategies can have on grammar: Vuestra Merced (‘Your Grace’), which today has become Usted, is the polite form of address, using the indirect third person instead of the second one; in large parts of Latin America the polite address vos (originally 2PL) has replaced the too direct form tú 2SG, making the paradigm ‘irregular’ at the same time:

<table>
<thead>
<tr>
<th>Latin American Spanish</th>
<th>European Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘I sing’ etc.</td>
<td>‘I sing’ etc.</td>
</tr>
<tr>
<td>1SG (yo) canto</td>
<td>(yo) canto</td>
</tr>
<tr>
<td>2SG (vos) cantáis</td>
<td>(tú) cantas</td>
</tr>
<tr>
<td>3SG (él/Usted) canta</td>
<td>(él/Usted) canta</td>
</tr>
<tr>
<td>1PL (nosotros) cantamos</td>
<td>(nosotros) cantamos</td>
</tr>
<tr>
<td>2PL (Ustedes) cantan</td>
<td>(vosotros) cantan</td>
</tr>
<tr>
<td>3PL (Ustedes) cantan</td>
<td>(ellos/Ustedes) cantan</td>
</tr>
</tbody>
</table>

Another well-known example are JAPANESE honorifics (cf. Prideaux 1970; Lewin 1959: §§ 62; 68; 138ff.; 167ff.).

5.2.2 Tasks beneath the level of propositions

Let us take another example of a different solution to an identical problem: Speakers of all languages have to apprehend and to linguistically process real world objects – a task giving rise to another privileged unit (above Principle 14), nouns. When cross-linguistically observing the techniques applied to this task, one may formulate a scale of possibilities. It ranges from ABSTRACTION (making nouns out of the content of propositions), over COLLECTION (e.g. ‘a flock of birds’), MASS AND MEASURE (‘an ounce of gold’), CLASSIFICATION BY VERBS, NOUN CLASSIFICATION, CLASSIFICATION BY ARTICLES, NUMERAL CLASSIFICATION, to NAMEGIVING (cf. Seiler 1986).

Speakers of different languages choose different techniques, but never all of them. Classification of objects by different verbs – mostly in the domain of verbs indicating the position or movement of something – is a highly elaborate technique in an ATHABASKAN language like CHIPEWYAN; GERMAN has a little bit of this ‘exotic’ technique (‘die Kleider hängen, die Schuhe stehen, die Untenäsche liegt im Schrank’, ‘der Kamin sitzt auf dem Dach’, ‘die Schraube sitzt auf der Mutter’ [‘the screw is fixed on the nut’]), whereas the feature is totally alien to ROMANCE LANGUAGES, which would use the same verb in all the above cases, e.g. the most simple linguistic form of the concept TO BE AT A PLACE.

The same holds e.g. for verbs of movement – we may distinguish different types of realization, e.g. ‘verb-framed’ and ‘satellite-framed’ techniques: In ENGLISH, there is, e.g., a tendency to use a general verb of movement like to walk, adding satellites like in, out, across to it. This results in syntagms like to walk in or out where a verb-framed language like SPANISH would have specific verbs such as entrar, salir, subir, bajar etc. (Talmy 1985; 1991).

Another example has to do with principle 10, Signs Referring to Types. What do
speakers of languages do in order to refer to tokens, instead? An answer is given by the dimension of IDENTIFICATION of the UNI-TYP project (→ art. 27, § 3).

The examples show that formulating a specific task as a tertium held universally valid and looking both for the solutions found in a variety of languages and the factors on which the solutions depend is a powerful tool in so-called functional typology. The application of this principle seems to have been particularly successful in Russian typology (→ art. 2, § 3.1; art. 26, §§ 2–4 for convincing examples).

Typically, what functional typology results in is discovering CONTINUUM and SCALES.

5.3 The emergence of conceptual continua and linguistic scales

Indeed, once we have formulated an invariant task and observed the cross-linguistic variance historical languages exhibit, we often come to discover CONCEPTUAL CONTINUUM and LINGUISTIC SCALES that correspond to them. A well-known example is the hierarchy which is sometimes termed ‘Silverstein’ or ‘Kozinsky hierarchy’ (after its discoverers, Michael Silverstein or Isaak Kozinskij; first ideas in this direction may be found in Hale [1973]), or simply ‘animacy hierarchy’. In terms of phenomenology or Gestalt psychology, it reflects the saliency of the ‘objects’ we are talking of, the most important ones being the speech act persons, then humans in general, animals, plants, discontinuous and concrete entities, mass, abstract entities. Here again concepts are linked to a pragmatic framework.

The effectiveness of such a hierarchy can be shown for instance in differential object marking across a large variety of languages (→ art. 65). In Spanish, (grammatical) objects are marked either by position alone or with an additional a – (veo a Pedro, ‘I see Pedro’ as opposed to veo el automóvil ‘I see the car’). In Spanish, the feature deciding in favour of a for grammatical objects is being a member of the class of humans, whereas Vallader, the version of Rheto-Romansh spoken in the Lower Engadine, only highlights the speech act persons, or more precisely, the 2nd and the 3rd one (I am not a salient person to myself as a grammatical object). The same animacy scale plays a crucial part in “split ergativity”: as was put forward by Isaak Kozinskij, ergative case marking exhibits a universal tendency to implicate nominals of lower animacy (→ art. 26, § 3.2) – which gives especially personal pronouns as typical exponents of humans a particular role in case marking often commented upon (→ e.g. art. 125, § 4.2.2 as regards the case of CAUCASIAN LANGUAGES).

In the case of linguistically processing real world objects (see above § 5.2.2), the principle underlying the scale of enumerated techniques is a continuum between ‘predicativity’ and ‘indicativity’. Predicativity is realized in an optimal way by the technique of abstraction – like the pan cooks over → the cooking over of the pan; indicativity is optimally realized by proper names which may nonetheless be expressed as well in a predicative way – “Dances with Wolves” for a person or “where they killed each other” as the Huichol version of the toponym Guerra ‘war’ – thus linking the ends of the scale into a Möbius-strip. (→ art. 27, § 5.3; for this kind of proper names → also art. 41, § 7.)

If we try to grasp a phenomenon like the linguistic scale(s) suggested for the concept of transitivity (see above § 3.4), it is evident that one perceptual continuum is projected onto several linguistic subscales: one being indeed the nature of the grammatical ‘subject’ and ‘object’ or, in a more neutral wording, of the actants (animacy hierarchy), another the degree of definiteness of the implied actants, still another tense and/or aspect (perfectivity and/or resultativity make an action more transitive – a fact that may give rise to ‘split ergativity’ dependent on tense categories: → e.g. art. 125, § 4.4), the thematic or rhematic character of the two nominal constituents, affirmation/negation, etc. (Hopper & Thompson 1980; Tsunoda 1985; 1994; → articles 26; 28, § 7; 125).

This kind of view makes us understand what at first might look exotic – like the case of perfectivity/imperfectivity being expressed by the grammatical object in Finnish. The imperfectivity-perfectivity opposition being one parameter in the con-
ceptual Whole called ‘transitive proposition’, its expression can be taken over by an obligatory constituent different from the verb, e.g. the Parts representing the patient or even a form representing the actor (GUSILAY, where, again, the animacy continuum comes into play, the device being restricted in this form to nominals belonging to classes 1 [humans, SG] and 2 [humans, PL]; see above § 3.4). “The sheer number and typological diversity of languages in which this phenomenon is found argue strongly that it is by no means marginal. Rather the possibility that TAM information is directly contributed to the clause by dependent nominal arguments, must be accounted for within any theory of universal grammar” (Nordlinger & Sadler 2000).

What is crucial for the scales under discussion is that they reflect the translation of perceptual or conceptual continua into linguistic forms and features by necessarily introducing cutoffs, turning points and borderlines: the number of signs, of discrete categories and word classes is limited according to the above Principle 10 (types). – More scales brought about by exactly this basic problem may be found in → art. 38, esp. §§ 3 and 4.

Hence, what we observe once we have engaged in this kind of viewing language data are CONCEPTUAL CONTINUA and linguistic SCALES that correspond to them – continua that may manifest themselves in grammatical distinctions, with the speakers of different languages grammatically marking different points in the conceptual continuum, thus giving rise to different types of linguistic realization.

A last example shall show the basic process as applied to first language acquisition. If an object falls onto the floor, this is a salient event already to toddlers. Hence, such (prototypical) events are projected onto specific linguistic forms the child has encountered in the speech of peers and adults and which seem to be related to the concept. This is why children use for instance GERMAN perfect forms as resultatives and perfectives: *ist runterfanna* (‘ist runtergefallen’, ‘has fallen down and now lies there’) as opposed for instance to *ist da* (‘ist da’, ‘lies there’). As a consequence, less salient and less resultative events – such as the barking of a dog or the cooking over of a pan on the stove – are attributed to the opposed imperfective, irresulative etc. category.

In this general sense, we might even interpret “Principles and Parameters” as conceptual Principles that are projected onto syntactic, formal Parameters. (→ art. 28, § 6.5 as to grammatical evolution typically starting from salient or prototypical instances.)

5.4 Some typically ‘human’ factors

There are universal factors beyond those that are wired into our brains or based on our conceptual apparatus. Their ‘typically human’ nature becomes most evident when we compare once more the genetic with the linguistic system. Cellular processes are energetically optimized by evolution, thus leaving no conceivable scope for economy (→ art. 8, § 4.9.2). Human communication, characterized among other things by the principles of Otherness and of Exteriority (above § 4.4, Principles 2 and 5), implies two psychophysical systems, that is speakers who may e.g. be more or less explicit in what they produce, giving rise to phenomena like the “Principle of Least Effort” (Zipf 1949). This is why economy (→ art. 31) and markedness (→ art. 32) are most important factors in human languages, leading for instance to permanent language change.

Markedness is a special form of economy since it takes shape in less marked vs. more marked units both on the formal and on the content level: there are less marked vs. more marked linguistic categories as well as semantic units. What is less marked usually conveys less information or, semantically speaking, less intension, having instead a wider range of applicability or extension.

This is one further aspect of well-known categorial scales and conceptual hierarchies like ‘subject – direct object – indirect object – genitive construction’, and it is related to “implicational universals”: “If a category in a hierarchy is accessible to relativization, the categories above will be all the more accessible to it”; in differential object marking: “if a less animate category is differentially marked as an object, the more animate ones will be marked a fortiori”; or in ergat-
ive marking: “if a more animate category is marked as ergative, the categories of lower animacy will be marked as well”.

Economy and markedness are universal phenomena in human language. Unfortunately, both are factors that never lead to stable situations or types: what is economical or optimal on one level leads to an increased effort and to reduced optimality on another one: witness e.g. simple phoneme systems leading to complex phoneme segments; conversely, the price to pay for short segments is a complex phoneme system that leads to increased efforts in pronunciation. Generally speaking, parameters of economy tend to be contrary to each other, often leaving us with a rather blurred overall picture (→ e.g. art. 31, § 6).

Whilst economy serves above all the interests of speakers, and markedness those of speakers and hearers, there is another ‘human’ factor that has to be taken into account with regard to speech perception, especially as regards parsing. As has been mentioned (see above § 4.4.5), the main task of the Broca area is the real time analysis of the grammatically tagged incoming series of signs (Parts) and the successive synthesis into a coherent structure (Whole). This has consequences for the perceptually optimal position of grammatical tags (→ art. 29).

One of the tasks of ‘prepositions’ or ‘postpositions’ is to mark the role a noun phrase (an ‘actant’) has with respect to the verb. Now, as was shown for the first time by a mathematician, the topologist René Thom, the best place for such linking morphemes is between the elements to be linked. If ‘*’ is the operator and $X,Y$ are the operands, Polish notation in mathematics – with its canonical $(X,Y)$ form – could by no means be a convenient solution in the linearization of linguistic signs. Instead, a perceptually good solution would be the type $X*Y$, i.e. with the operator between the operands. According to Thom (1973), this is why V(S)O ordering more often than not leads to the type V Prep N, whereas in (S)OV ordering the type N Post V is preferred (→ art. 2, § 2.2). (Things might be complicated by taking into account head vs. dependent marking as an additional factor.)

At the same time, this example shows again that what is perceptually optimal on one level may be less so on another one: Since the same principle should apply to actants having the shape of subordinate clauses, we should – in the case of an object clause – have the type (S)Cl$_{obj}$*V and hence (S)[sov]$_{obj}$*V. As was shown e.g. by Francesco Antinucci (1977), this could lead to a typical pitfall for hearers. As a consequence, we often observe that ordering in dependent clauses differs from ordering in matrix sentences – which prevents misanalysis (cf. Raible 1992).

### 6 The shortcomings of traditional views

If we take into account the ‘traditional’ field of Typology and the – often excellent – work that was done in this domain, the above considerations on the topic of Universals as necessary in order to ask the right questions in Typology might appear somewhat gratuitous. But even granted this, a threefold caveat will not be amiss:

1. We do need the universalist view, – in particular the level of Principles (see above § 4.4) and of concepts (see above § 4.3) – in order to find or to construct the tertium comparationis indispensable in typology. The categories of historical languages are different to such an extent that a simple comparison of seemingly identical categories is bound to be misleading, unless this comparison is supported by functional, conceptual and cognitive criteria (see above e.g. §§ 4.2; 4.3; 5.2; 5.2.1; 5.2.2). This is an answer to the problem raised in § 3.3 (Categories are not cross-linguistically comparable) and it is – at least to a large extent – the secret behind Isaak Kozinski’s opposite claim that categorial differences were of little importance (see above § 3.3).

2. There is an important caveat regarding the ‘comparability’ of languages: Langue in the sense of de Saussure is a construct corresponding to the sociology of Émile Durkheim and his school (that was contemporary to de
Saussure). A more realistic view, taking into account, among other things, linguistic variation (§ 1.3), would prefer to conceptualize language systems according to the communicative tasks to be fulfilled, that is language should rather be seen as a scale (see above figures 1.1 and 1.2), or even better as multi-dimensional space. As there is (in parallel to the extension of communicative tasks) a scale of Pidgins merging, e.g., into a scale of Creoles, language systems may be more or less developed or ‘sophisticated’ (see above § 2, ‘Ausbau’ as opposed to ‘language obsolescence’). While comparing parts of such systems across different languages, we always have to take into account at least the text or utterance type, the area, the social space it is used in. This is all the more important as we have seen that history has to be introduced into typology (see above § 3.5).  

3. Another caveat holds for the comparability of languages with respect to ‘historical depth’ and documentation through history (the issue was raised above in § 3.5; → art. 111). Principle (4), Historicity, makes change a phenomenon inextricably linked with any language at any moment of its existence (see above § 4.4). If in a cross-linguistic approach we concentrate on types e.g. on the basis of the expression of ‘possession’ or ‘marking of objects’ (→ art. 65), what we observe may well correspond to the picture we take of an intermediate state on a scale of development. What is important and truly fascinating are not the intermediate states we can observe in a series of languages, giving rise to ‘types’ of expression for possession or object marking, but the conceptual continuum or the cognitive (mental, semantic) maps behind such developments – thus meeting the expectations of Leibniz (Nouveaux essais sur l’entendement humain):

“On enregistrera avec le temps et mettra en dictionnaires et en grammaires toutes les langues de l’univers, et on les comparerà entre elles ; ce qui aura des usages très grands tant pour la connaissance des choses [...] que pour la connaissance de notre esprit et de la merveilleuse variété de ses opérations.”

7 References


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