

Semantics and Typology¹

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In this paper, we will discuss some controversial points concerning possible tasks of typology and methods usually employed in typological research. We will focus on the role that the study of meaning - as opposed to the study of grammar - has assumed in the typological tradition. In particular, we will concentrate on the question of whether or not language-specific meaning and more subtle semantic issues of the kind usually dealt with only in the descriptions of single languages (or at best in comparative studies of few selected languages) are still relevant for capturing typological generalizations, for instance in the style of implicational universals. Our basic claim is that attention to language-specific semantics (and pragmatics) is a necessary prerequisite to cross-linguistic insights. Neglecting this - either by restricting typology to superficial variation of form and/or by confining semantic considerations to highly abstract and independently defined semantic notions - causes serious methodological problems, especially in large-scale (and hence necessarily coarse-grained) comparison of languages. This may show up in immensely differing decisions about whether a language should be considered to satisfy a certain implicational universal, whether it may serve as a counter-example to it, or whether it just constitutes a non-applicable case. This type of classificatory uncertainty will be illustrated for one issue, using data from Hungarian - viz., the relationship between plural marking and classifiers.

1 State of the Art

An overwhelming amount of typological approaches proceed from the assumption that typology is concerned with comparing **grammars** of languages in order to identify cross-linguistically valid **grammatical** patterns and correlations between such patterns. Significantly, it is only the nature of the explanations given for empirically extracted grammatical similarities where linguists of different persuasions actually make different claims. That is, there is no consensus about the question of whether that which Wierzbicka (1995) called "Grammatical Typology" necessarily has a semantic basis and whether linguists should go beyond grammar in seeking explanations in "extragrammatical domains" such as pragmatics, cognition, etc. (cf. Whaley 1997: 14-15). At any rate, the views that "meaning" is located outside "grammar" (in the sense of language system) or that the study of "meaning" (i.e. semantics) is not included in "grammar" (understood as the description of language systems) seem to dominate typological research.² One may ask where the theoretical background of this separation of grammar from meaning comes from. More importantly, what theoretical consequences follow from this separation for cross-linguistic studies?

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² For an enlightening historical discussion of the relation between "grammar" on the one hand and "meaning" and "semantics" on the other the reader is referred to Lyons (1995). He also addresses the systematic ambiguity involved in the use of the terms "grammar" and "semantics".

As pointed out by Matthews (1993, 1995), probably the most important heritage of post-Bloomfieldian structuralism consists in the fact that the separation of distinct levels of analysis (such as phonology, morphology, syntax, and semantics), which was methodologically motivated initially, and, in particular, the division between grammar and semantics was institutionalized across all (both generative and non-generative) linguistic schools of the post-structuralist epoch. So, for instance, it became quite common to make a distinction between grammatical and semantic well- (and ill-)formedness outside the generative paradigm as well. Similarly, most linguists distinguish between grammaticalization on the one hand and lexicalization and semanticization on the other. This same structuralist conception is also attested in the innumerable debates, held by generative and functional linguists alike, about whether a certain phenomenon in a single language is semantically or grammatically (preferably syntactically) determined.

Note that in all the above-mentioned examples of confronting grammar with semantics the former always has a flavor of idiosyncrasy: from the fact that a certain linguistic form cannot be fully described in terms of the available semantic categories, i.e. that there is no coherent semantic theory which would adequately predict all uses of a linguistic form, the incorrect conclusion is drawn that the respective form has no semantic basis whatsoever (cf. Wierzbicka's (1995: 180) critical remarks on this type of reasoning). A further characteristic feature of this concept of grammar is its strong association with context independence. Grammar is conceived of as an array of statements about linguistic structure, which can be made by abstracting from all the lexical-semantic and situational variables which influence, in a complex way, the production and perception of utterances in a single language.

However, confining the domain of language-specific grammar to those phenomena which can be defined context-independently and cannot be described in semantic terms in a straightforward way, and, simultaneously, considering typology as the comparison of language-specific grammars with the aim to restrict possible grammars of natural language inevitably leads to the following consequence: for a considerable number of interesting linguistic phenomena only a partial typological evaluation is possible, both with respect to the data to be covered in single languages and with respect to the languages themselves that can be compared at all. In the best case, one will fail to achieve the original aim, in that one has to content oneself with partially valid structural affinities instead of being able to make generalizations about universally valid structures. In the worst case, the results of partial systematization will be of a superficial nature and not well understood.

Some readers might find it misguided to trace this dilemma of typological research back to the negative impact of American structuralism, given that typology looks back at a research tradition of almost two centuries and has of course been shaped not only by American but also by European structuralism. However, it must be borne in mind that all pre-structuralist approaches to typology (in particular "morphological typology") also focus on certain formal properties of grammar without considering meaning. Moreover, attitudes not essentially differing from those of their American contemporaries are found with Prague structuralists, as well. For example, Skalička not only stresses that "a typology of natural languages can only be constructed with respect to the formal aspect of language" (Skalička 1982: 455). He explicitly states that "several areas of semantics are only of minor importance with respect to form and its diversity [i.e. typology]" (ibid., translation from the German is ours). An extremely common belief is articulated here: languages trivially differ in their vocabularies and, of course, also in the usage conditions of their grammatical constructs. But these are basically uninteresting differences, and, in particular, the lexical differences do not interact

with the grammatical ones. Semantic phenomena such as ambiguity or synonymy contribute little (Skalička even says "nothing"); they belong rather to stylistics or pragmatics, areas which cannot be compared across languages. Consequently, the only relevant typological differences among languages reside in their potential for various structural configurations. That is to say, the strong impact of American structuralism on modern linguistics (and, in particular, on typology) was not effectively counterbalanced by different lines of typological tradition that could probably result in a research attitude with a stronger interest in semantic issues.

It therefore comes as no surprise that Winfred Lehmann, as recently as in his 1986 classification of typological approaches, stresses the absolutely central position of syntactic and morphological typologies, considering lexical and semantic typologies as marginal or even non-existent (cf. p. 13). Interestingly, the only two works he mentions as possible candidates for a "semantic typology" are cross-linguistic studies of such areas that have traditionally attracted the interest of theoretically-working semanticists (Traugott (1982) about the difference between propositional and expressive meaning and Traugott/Dasher (1985) about speech act verbs and mental verbs). In the meantime, cross-linguistic research going by the name of "lexical" or "semantic" typology has gained influence. Nevertheless, it departs from the mainstream of morpho-syntactic typologies in a number of crucial aspects. Before going into the role of semantics in morpho-syntactic typologies, these "exceptions" are worth being briefly touched upon here.

The notion of "lexical typology" to date is prominently associated with Leonard Talmy's work and the research influenced by it (including ours). The basic assumption underlying this line of typological research reads like the exact opposite of Skalička's claim: differences in vocabulary (in particular, differences in synonymy and ambiguity structures) are not fortuitous; rather they interact with grammatical patterns and are on the whole typologically significant. The notion of "semantic typology" is encountered, for example, in Hawkins (1986) (commented on in Müller-Gotama 1992). By means of a typological parameter, which he terms a "Semantic Typology", Hawkins distinguishes "grammaticizing languages" (such as English) from more "semantically transparent" languages (such as German). He thus addresses precisely the above-mentioned problem arising when grammaticalization is tacitly assumed to be a condition for language comparison. It is probably not by chance that Hawkins exemplifies his approach with a fine-grained contrastive study basically involving only two languages. A different understanding of "semantic typology" is found in the work of the Nijmegen Cognitive Anthropology Research Group (cf. Pederson et al 1998). The central interest here lies in systematically investigating issues of linguistic relativity across a variety of conceptual and linguistic domains, for example, in the domain of spatial conceptualization; for such domains the relationship between language and cognition is investigated in a number of different languages. Finally, we find some works which are - in a certain sense - similar both to the above-mentioned work by Traugott/Dasher (1985) and to the work of the Nijmegen group: all of them carry out cross-linguistic studies in a phenomenological domain (e.g. aspect or quantification), which has already been very well investigated in theoretical semantics (e.g. Bache et al. 1994). All these studies are best characterized as cross-linguistic investigations involving fine-grained comparison of usually only few languages, with the goal of arriving at a better understanding of a certain phenomenological area rather than aiming at classifying languages or establishing "types".

What characterizes the mainstream of contemporary typologies that we called "morpho-syntactic typology" above? Grammar (both language-specific and language-independent

abstract grammar) is conceived of as a structured inventory of interconnected morpho-syntactic categories. Especially for those approaches with a functionalist orientation, it holds that the study of semantics is considered important on two levels: (a) on a language-independent level, on which abstract morpho-syntactic categories such as ASPECT, TENSE, NUMBER, PLURAL, are defined as having certain functions in natural language in general; (b) on the level of the interpretation of data while determining and theoretically evaluating translation equivalents.

Concerning (a), Whaley's recent "Introduction to Typology" (1997) may be quoted. After defining the chief task of typology as comparing formal properties across languages, he points out that it does not follow from this that semantic considerations would be entirely excluded from typological studies given that "typologists have always been concerned with semantic categories, such as "tense", "agent," or "gender," and how these categories are manifested by the formal units of language" (p. 14).

It is probable that the difference between two types of approaches to morpho-syntactic typology - earlier ones, more strongly rooted in the structuralist tradition, which claim that the tertium comparationis in typology lies in the formal aspect of language, and those propagating a meaning-to-form method, claiming the tertium comparationis must be a semantic one³ - is smaller than it may appear at first sight. Both approaches actually compare formal properties, while only the second approach makes it explicit that such comparison necessarily presupposes a language-independent semantic basis. Note, however, that late American structuralists already had an implicit notion of language-independent categories partly shaped by semantic considerations. This is attested in the fact that the earlier practice of representing morphemes as sets of allomorphs was often abandoned in favor of a morphemic representation by means of small-caps category labels (e.g. "the {PLURAL} morpheme").⁴

As far as the "semantic basis" in typology is concerned, there is, nevertheless, a subtle but important difference between that which Talmy calls "semantic domain" and the hypothesis that language-specific manifestations of universal morpho-syntactic categories share a common core meaning. While "semantic basis" in the first sense is a methodologically guided semantic restriction on the domain of investigation without strong claims about the existence of universal categories in this domain, it is tied to just such claims in the second sense, where it is understood as the semantic part of universally defined grammatical categories. In the case of the latter, heuristic assumptions about such language-independent core meanings are sometimes even used as a kind of justification for abstracting from semantic peculiarities in language-specific constructions when treating these as manifestations of certain universal categories (cf. Croft 1990). This point is strongly emphasized also by Anna Wierzbicka (1995: 181):

³ "The "meaning-to-form" method of description has its basis in typological research. For a typological point of view concerning various linguistic entities always demonstrates that the highest degree of generalization is available on the semantic level, if the functional nature of an entity is clear." (Kibrik 1986: 166)

⁴ We should bear in mind that the structuralist practice of representation and grammar writing has strongly influenced (and still influences) the way hitherto undocumented languages are described for the first time in the form of a grammar. Large-scale typology projects comparing a great number of languages inevitably rely on such grammatical descriptions as the only source of information, since for a considerable number of languages, this is the only kind of written information easily accessible.

”There is nothing wrong in using the same label for different phenomena as long as these phenomena have something in common, and as long as the label is defined in terms of a common core (and of course as long as the language-specific phenomena linked with such labels are rigorously described, from a language-specific point of view).”

However, the problem surfacing in typological research is not only a terminological one. While in a contrastive study of few languages it is possible to provide information about how the category labels are to be interpreted in the different languages, such detailed information is usually lost as soon as we start doing typological work – e.g. investigating the interconnection of selected categories such as PLURAL, DEFINITE ARTICLE, CLASSIFIER, etc. – on the basis of a larger sample of languages. It is safe to assume that categorial interdependency, as it is usually expressed in the form of implicational hierarchies, cannot be adequately captured on the most abstract semantic level. That is, it is hard to see how it can be coped with without referring to those more specific semantic conditions which – albeit neither necessary nor sufficient for the definition of the category in question – are actually responsible for a particular interdependency in some well-known cases. To express it in the terminology of lexical semantics: it seems to be more useful to think of language-independent categories in terms of ”family resemblances” with varying sets of semantic conditions holding in different languages, rather than in terms of ”core meanings” holding in all languages. The obvious consequence of this is that the relevant conditions have to be spelled out in typological hypotheses.

This will be clarified by number in Hungarian in the second part of this paper. Here a brief comment on difficulties with the category PLURAL should suffice. A language-specific category, which may be regarded by linguists as PLURAL by virtue of its satisfying the coarse criterion of ”indicating more than one object” can be of different types: it may be of a distributive and/or of a collective kind, or, it may be restricted to signaling abundance (”plural of abundance”) or, conversely, a small amount (”plural of paucity”), etc. Whereas there is a great number of language-specific investigations about the different readings of plural construals, especially about the ambiguity of English plural phrases between a collective and a distributive reading (cf. Gillon 1987), relatively little attention has been paid to the different aspects of ”PLURAL meaning” from a cross-linguistic perspective, unless the languages under investigation display distinct forms that both fall under the heading of PLURAL (cf. Corbett/Mithun (1996) on associative plurals and Fiedler (1981) on collective plurals). Discussing such cases of multiple marking of PLURAL, Moravcsik (1978: 349) asks ”which is the ”real” plural” and whether or not we should set up different PLURAL categories in a typological framework according to those semantic properties which may be constitutive independently in constructing ”plural forms” in certain languages. She leaves open the question of the general significance of the semantic differences found with plural forms, tentatively concluding that it would be redundant to adopt more than one PLURAL category ”in a grammar” since all PLURAL distinctions (plural of abundance, collective plural, etc.) share the feature of standing in opposition to SINGULAR.

In our view, this kind of reasoning in terms of redundancy can only be successfully applied within the description of language-specific grammars (where it usually presupposes a great deal of implicit knowledge of the language in question) but turns out to be highly problematic under the condition of cross-linguistic comparison. There are reasonable grounds for suspecting that serious problems with determining the status of the PLURAL category as optional or obligatory in some languages may arise due to the following practice: investigations of plural forms are usually guided by the expectation that in every language these forms necessarily combine the same meanings and are subject to the same usage

conditions as English, German, French, etc. plural forms. That is to say, they are assumed to be systematically used both with a distributive and a collective reading, and not only in the case of distributive but also in the case of collective reference is their use expected to be generally required in certain environments (with nouns denoting PHYSICAL OBJECTS in non-generic, episodic contexts), unless there are lexicalized collectives restricted to singular forms (e.g. *cattle*).⁵ Of course, optionality of plural marking, when determined from a language-specific perspective (for example, in a language with only distributive plurals) will not necessarily fit in with our evaluation of optional plural marking made in comparison with the European model.

Some typologists such as Croft (1990: 13) take the view that

”[t]he problem of cross-linguistic identification should not be overstated. In most cases, it is not difficult to identify the basic grammatical categories on an intuitive basis. To a great extent this is accomplished by examining the translation of a sentence and its parts, which is of course based on semantics and pragmatics.”

It is not our intention here to call the usefulness of translations into question. However, we would like to critically counter Croft’s view in one point: if grammatical categories are chiefly identified on an intuitive basis, guided by translations, the *tertium comparationis* is likely to become a particular natural language. (We should not forget that translations are usually made into only one language at a time, and this language is very often just English.) Moreover, one should not underestimate the phenomenon that Quine aptly termed the ”indeterminacy of translation”. Kibrik, for example, stresses that ”the postulate of translatability (in principle) from one language to another implies the identity or essential similarity of their semantic basis” (1986: 166). However, from the indeterminacy of translation follows that this statement can be accepted only in a very general sense. What we describe as ”translation fallacy in typology” would be the strong and clearly wrong assumption that sentences taken to be possible translations of each other must necessarily have the same semantic representation and/or contain grammatical categories with the same semantics. This is not the case for the simple reason alone that we will always have to reckon with many-to-many-relations between translation-equivalent sentences due to language-specific synonymy and ambiguity. In addition, semantic overspecification and underspecification, as well as variation in conflation of semantic components, may result in the well-known effect that certain sentences of a particular source language have no single translation equivalent at all in a particular target language that would preserve the semantic content of the source sentence and, at the same time, would be accepted as native-like

⁵ These properties are, of course, the reflex of a mass-count distinction. It is well-known that number marking heavily depends on whether or not a language has a mass-count distinction, and if it does of what type (lexical, grammatical, etc.) it is. Surprisingly, this point is not always made explicit in typological works on number. Corbett and Mithun (1996) represent an exception here in that they point out that they ”establish the inventory of count nouns of particular languages as a basis for establishing the possible patterns” (p. 2). Unfortunately, the mass-count distinction is not an universal one, and even those languages distinguishing between mass nouns (or phrases) and count nouns (or phrases) may considerably vary in the way how they do this (cf. Behrens 1995). For this reason, morpho-syntactic typologies connected to the idea of grammaticalization are confronted with a further problem. The concept of optionality in relation to the marking of morpho-syntactic categories relies on the idea that at the endpoint of grammaticalization elements with the relevant meaning become obligatorily used inflectional affixes. However, if plural marking depends on the mass-count distinction, it is necessary to define what grammaticalization means for a complex ”hidden” category such as the mass-count distinction. Normally, grammaticalization theories fail to give an answer to this question, concentrating on the development of single forms from lexical elements to affixes.

sentences of the target language in question. Looking for regular correspondences in translations produced by professional translators rather than by linguists, we thus often find clear semantic discrepancies between source and target sentences. Below in this paper we will draw attention to such a case where referential expressions in one language correspond to non-referential expressions in another.

2 Case Study: Does Hungarian Have an Optional Plural and Classifiers?

We are now going to illustrate the problems discussed above with a case study. Here we will deal with implicational universals concerning the obligatory marking of plural (as opposed to optional marking) and the occurrence of classifiers. As a point of departure, we will refer to a very interesting discussion on the internet list "LINGTYP" that centered around precisely this topic last year. The discussion was opened by the following query:

"Anybody can kindly provide me with examples for languages that count nouns without classifiers (use Number directly with Nouns without Classifiers) and, at the same time, do not inflect their nouns for number? That is, a bare noun can be interpreted as singular or plural ('book' meaning 'a book' or 'books') and can also occur with a number directly ('three book')." (Bingfu Lu, Lingtyp: 4.11.1998)

Bingfu Lu's question, of course, already proceeds from two incorrect suggestions: that the lack of number inflection is identical with the presence of bare nouns capable of being interpreted as both singular and plural (judged from the perspective of a language such as English), and that the latter property implies the use of bare nouns after numerals instead of plural nouns. LINGTYP-members answering Bingfu Lu's inquiry picked out different criteria when adducing examples of languages putatively meeting his expectation: (a) some of the discussants referred to languages "which do not inflect nouns for number" in the sense as morphological inflection is traditionally determined on the basis of language-specific criteria (cf. Lindsay Whaley, Lingtyp: 4.11.1998). (b) Others pointed to languages in which "pluralization of nouns is optional (so that a noun unmarked for number may be interpreted as singular or plural in reference)" (cf. Alan King, Lingtyp: 4.11.1998). (c) Still others cited languages allowing "bare nouns to be interpreted as singular or plural in that plural marking is not required" (cf. Matthew Dryer, Lingtyp: 4.11.1998). Note that the criterion employed in (a) would include languages which use "plural words" rather than plural affixes even in such (hypothetical) cases when plural reference of noun phrases not marked by plural words is generally ruled out. By contrast, criterion (b) is neutral with respect to the realization of number marking by means of affixes or function words. Like criterion (a), it applies to all noun phrases, i.e. both to undetermined bare phrases and determined phrases while criterion (c) concerns only bare phrases with the consequence that it is perhaps true even of the majority of languages as pointed out by Matthew Dryer (ibid.). At any rate, Hungarian was one of those languages which were prominently discussed as candidates possessing both features in question, namely displaying "defectivity" in number marking of whatever kind and lacking classifiers.

Before going into the details of Hungarian data, we would like to strongly emphasize two points for those readers who are skeptical about quoting Internet discussions as reliable sources in evaluating the current research situation. It is certainly true that such contributions are formulated in a rather colloquial style and it is only for this reason that they can generally not be compared with papers officially published, as far as theoretical and terminological precision is concerned. Consider, for example, the implicational universal underlying the query cited above. Presumably, it was Sanches (1973) who was the first to articulate this hypothesis about the relation between classifiers and plural marking, in the form shown in

(1a.). Here she introduces an important restriction by using the adverbial phrase "as its dominant mode of forming quantification expressions", thereby confining the set of relevant languages from those having classifiers in general (probably a very large group) to a considerably smaller group of languages usually considered as genuine "classifier languages". In informal quotations, this restriction is typically absent, so, for instance in the two variants discussed on the Lingtyp list and quoted here under (1b. and c.). They even differ in which feature is chosen as the antecedent and which one as the conclusion of the implication (cf., however, also the abbreviated formula in Plank's "Universals Archive" ((1d.)) which is said to correspond to (1a.)).

- (1) a. "[I]f a language includes numeral classifiers as its dominant mode of forming quantification expressions, then it will also have facultative expression of plural." (Sanches 1973: 4)
- b. If a language does not have plural inflection or plural words, then the language will most likely have classifiers. (discussed by several members of Lingtyp (11.1998))
- c. "If a language has classifiers, it does not have number inflection as a general property of noun phrases." (Suzanne Kemmer, Lingtyp 6.11.1998)
- d. Formula: numeral classifier => ¬obligatory plural (Plank's "Universals Archive")

On the other hand, it is undeniable that grammatical descriptions in the area of plural marking are often no less vague. It is often simply stated that a particular language has "facultative" or "optional" marking of plural, and the descriptive grammars fail to give a precise account of the semantic and syntactic conditions on which singular and plural phrases are used. In this respect, a particular discussion such as this has the merit of drawing typologists' attention to the theoretical problem that "optionality in number marking" is a highly polysemous term which needs to be decomposed along several parameters.

The second point which has to be stressed is that the grammatical descriptions of Hungarian, in particular, do not provide sufficient information on the basis of which a typologist could decide whether number marking is to be characterized as optional or as obligatory. This is a bit surprising since Hungarian is usually considered to be a well-documented language with a long history of grammar writing. However, having checked all grammar books that have been published on Hungarian (written either in Hungarian or in other languages), in none of them have we found an exhaustive discussion of the conditions in which the plural is used. Rather, what one finds is relatively short treatments of the following properties: (a) morphological peculiarities of plural formations (including reference to distinct plural forms such as group plural, possessive plural); (b) use of singular after numerals and after most of the quantifiers; (c) use of singular with body parts occurring in pairs or otherwise in a collection (e.g. eyes, teeth); (d) some peculiarities of subject-verb agreement (including reference to the "optional" use of singular verb forms with coordinated subjects including two or more singular noun phrases and reference to agreement mismatches in the case of proper-noun subjects construed as plural but denoting collectives and in the case of collective singular predicate nouns combined with plural subjects).

In view of the fact that the notion of "optionality" has not thus far been well defined and in view of the limited availability of empirical information on plural use, it is not surprising that Hungarian plural has been characterized in largely contradictory terms in the Lingtyp discussion. Inter alia the following statements were made: Moravcsik, for instance, points out that "even though it [Hungarian] does have a nominal plural affix, nouns do not always receive this affix when they have a plural referent" and that "when a plural referent is meant,

there are several contexts where the singular is obligatorily or optionally used instead” (Edith Moravcsik, Lingtyp: 5. and 6.11.1998). A slightly different prediction is made by Jim McCawley in his evaluation of Hungarian data: ”in Hungarian, sg is not only morphologically but also semantically unmarked” in that singular is used when there is no presumption as to whether the referent is single or multiple while English prefers plural in such cases (Jim McCawley, Lingtyp: 5.11.1998). The conclusion drawn by Alan King also seems to be somewhat different; he claims that in Hungarian ”nouns do in general, obligatorily, get marked grammatically for number; the cases in which this marking does not occur comprise only a strictly limited subset of (syntactically, lexically...) definable instances, e.g. when quantified by a numeral” (Alan King, Lingtyp: 5.11.1998). Consequently, King characterizes Hungarian as a language with nominal number which is almost as strongly grammaticalized as that in Romance and Germanic languages.

We will leave it at that and proceed to a closer look at the actual facts of plural marking in Hungarian.

If we define ”optionality” in the sense of ”free variation”, i.e. as the state of affairs that both the presence and the absence of certain linguistic forms is permitted in the same context without resulting in a significant change of meaning, there is only one extremely marginal case in Modern Hungarian where the use of plural affixes can be considered as ”optional”: this is in combination with the quantifier *összes* (‘all’) which, in contrast to numerals and other quantifiers, also tolerates plural in addition to the more frequent use of singular. It goes without saying that it would be out of place to subsume all other cases of overt quantification in which singular is strictly required under the label of ”optionality of plural”.

The first (and probably most important) semantic point to note is that the Hungarian plural is, in principle, a distributive one. This means that it does not display a collective-distributive ambiguity similar to that in English, and, on the other hand, it is systematically used to signal distributive multiplicity both in the area of spatio-temporally located referents and in the area of abstract sorts, without any restrictions to nouns designating bounded objects (i.e. ”count nouns”) as in English. Hungarian has a few lexical classes whose members are systematically ambiguous between a collective and singulative conceptualization: body-part denoting nouns constitute such a class as well as some nouns denoting small fruits or other small objects and as such typically occurring in a collection (e.g. *cseresznye* (‘a collection of cherries’/‘a single cherry’), *fű* (‘grass’/‘a blade of grass’), *cigaretta* (‘a pack of cigarettes’/‘a single cigarette’). In contexts in which the singulative reading is chosen, such nouns can be directly counted by means of numerals and also pluralized; conversely, the indefinite article, numerals, and the plural affix usually evoke the singulative reading. In contrast, definite determiners are neutral with regard to collective and singulative readings so that the intended interpretation may only be selected on pragmatic grounds (as in (2)) and, occasionally, sentence ambiguity may also arise (as in (3)). This behavior holds true for paired body parts as well. For this reason, the often quoted specifier *fél* (‘half’) is appropriately used with such nouns only in cases where we want to indicate that an activity (or state) which typically involves both body parts is now carried out only with one of them (or holds for one of them) (cf. (4)). Here, it is the collective sense which triggers the specification by *fél*, whereas in situations without the presumption mentioned (i.e. when a singulative reading is appropriate), nouns such as *láb* (‘foot’) or *kéz* (‘hand’) too are counted as single objects rather than as pairs. Note that the lexical pattern of ambiguity between a collective and a singulative reading is not entirely unknown in English. We encounter it, for instance, with the noun *hair*. Perhaps it should also be stressed that, in

Hungarian as well, (non-generically used) definite singular phrases with nouns lacking this lexical pattern (e.g. *a labda* ('the ball')) can only be understood as referring to single objects.

- (2) Piri kitépett egy haját // kitépte a haját.
 Piri tore(IND) IND hair(ACC) // tore(DEF) DEF hair(POSS.ACC)
 'Piri tore out a single hair.' // 'Piri tore out her hair.'
- (3) Add die a cigarettát // a cseresznyét.
 to hand over DEF cigarette(ACC) // DEF cherry(ACC)
 'Hand over the (single) cigarette ~ the pack of cigarettes // the (single) cherry ~ (the bowl,... with) the cherries.'
- (4) Piri fél lábon áll. // A rendőrség talált egy // három lábat.
 P. half foot.on stands // DEF police found IND/one // three foot(ACC)
 'Piri is standing on one foot.' // 'The police found one foot/three feet.'

The situation is entirely different with bare singular phrases. With a few exceptions (cf. below), there are only two syntactic constructions in Hungarian in which bare singular phrases are used causing the translation effect of "transnumerality". One of them became known as the "focus-verb construction" (or "modifier-verb construction"). Here, the bare singular phrase occupies the syntactic position of focus/modifier (i.e. the preverbal position in the default case) and constitutes, together with the verb, a semantic unity in the sense of a "unitary concept". For this reason, this construction is sometimes referred to as an example of (loose) incorporation. The crucial point is that here, the undetermined singular phrases do not extensionally refer to any external object in the world, but, rather, they name an intensional property which is lexically established with the noun in question (i.e. as its lexical concept) in order to specify the event designated by the verb. Consider, for instance, the examples in (5): no difference is made - either syntactically or semantically - between "letter-writing", "newspaper-reading", "flower-watering", "novel-writing", and "apple-eating", in each case only the "QUALITY" of the arguments is indicated. In other words, the respective sentences lack what is sometimes called "object reference".

- (5) Piri levelet ír // újságot olvas // virágot locsol.
 Piri letter(ACC) writes // newspaper(ACC) reads // flower(ACC) waters
 regényt ír // almát eszik.
 novel(ACC) writes // apple(ACC) eats
 'Piri is writing a letter ~ letters // is reading the newspaper // waters plants ~ is watering (the) plants // is writing a novel // is eating an apple ~ apples.'⁶

If, however, the bare phrases in sentences such as (5) are analyzed as non-referring phrases, it is no longer true that they manifest a case where the singular is used "when a plural referent is meant". One might therefore ask why, after all, such examples are brought up as evidence for the optionality of the Hungarian plural in this specific sense. We suspect that this goes back to the suggestive power of the translation equivalents in languages such as English or German. In these languages, QUALITY-indicating, non-referring uses of nouns whose denotata may be perceived as discrete objects are allowed in nominal compounds and to a certain degree also in combination with non-finite verb forms (participle, infinitive). In

⁶ Note that the "focus/modifier-verb construction" is indifferent with regard to an episodic and a habitual reading. An occupational reading is not possible in most cases. The translations given here are those having a higher pragmatic probability.

comparison, noun incorporation with finite verbs (as in Hungarian) is largely confined to idiosyncratic, lexically constrained cases (e.g. German *Zeitung lesen* ('read the newspaper')). Since according to normal practice of translating Hungarian sentences into German or English, nominal features are more easily altered than verbal ones, the usual way of coping with this incongruity is the following: bare singular phrases in the "focus/modifier-verb" construction are translated either by singular phrases containing an indefinite article or by undetermined plural phrases. In both cases the verb in the target language remains finite, i.e. it is not changed to a non-finite form which would allow the combination with a bare noun phrase. Although indefinite singular and bare plural phrases in English and German may have a non-referential interpretation (e.g. in hypothetical or opaque contexts), their default interpretation in a spatio-temporally concrete, factual context implies specific reference. The translation 'Piri is writing a letter' thus tends to be interpreted as containing a referring phrase (e.g. 'a letter'). From this the clearly incorrect conclusion is easily drawn that the Hungarian source sentence must likewise be so interpreted.

The second construction with a bare singular phrase which contributes to the assumption that Hungarian plural is optional can be illustrated by example (6). Here, the bare phrases have the function (and the intonation) of a contrastive topic and are combined with an existence predicate in focus. As in the former case, they have to be analyzed as non-referring expressions, both in the negative and in the positive assertion.

- (6) a. Kenyér // virág // alma van elég.
 bread // flower // apple there is enough
 'There is bread enough // are flowers enough // are apples enough.'
 b. Kenyér // virág // alma nincs [there is no] elég.
 'There is not enough bread // are not enough flowers // are not enough apples.'

Finally, a third rather marginal case has to be mentioned which has been discussed on the Lingtyp list as evidence for optional plural marking in Hungarian. Jim McCawley pointed out that "a bare singular is used as a generic on e.g. shop signs", for example, "shops would have signs saying "Könyv" or "Virág" (lit. "BOOK", "FLOWER"), where an English sign would have "BOOKS", "FLOWERS"" (Jim McCawley, Lingtyp: 5.11.1998). It likewise holds for such cases that there is no referential act involved. Shop signs do not extensionally refer to the products sold in a shop but, rather, indicate their QUALITY (or "type") similar to the use of bare singular in corresponding English compounds (e.g. *book shop*). Incidentally, it follows from what was said above about the use of the Hungarian plural that Hungarian shop signs in the plural are not unknown either. They occur with superordinate categories (rather than with basic level categories such as *könyv*); the plural here signalizes the multiplicity of different sorts (kinds), e.g. in *vasárúk* (lit., 'iron-wares').

The claim that bare singulars in shop signs manifest generics (and as such provide evidence for the optionality of plural marking in Hungarian) brings in its wake serious difficulties both with respect to the analysis of Hungarian data in particular and with respect to the theoretical treatment of generics in general. First to Hungarian data: classical generics, i.e. noun phrases referring to kinds in a generic statement such as (7), must be marked by a definite article regardless of the ontological type in question. In this context, definite singular generics may vary with definite plural phrases (especially in the case of reference to human kinds), but the use of bare phrases is not permitted at all.

- (7) Az arany értékes fém. // A tigris emlősállat.
 DEF gold of great value metal // DEF tiger mammal.
 ‘Gold is a metal of great value.’ // ‘The tiger is a mammal. ~ Tigers are mammals.’

In addition to the behavior of determiners, Hungarian – like a great number of other languages – displays further formal differences between kind-referring phrases acting as topics of generic predicates and non-referring mentions combined with non-generic predicates such as illustrated above in (5): The former, being in fact “discourse referents”, allow definite anaphor while the latter do so only in restricted cases similarly to noun modifiers in English compounds.

The second problem concerns the question whether generics should be taken into account at all when optionality of plural marking is determined. It is trivially obvious that the semantic difference between singular and plural phrases has – presumably in all languages – an entirely different value for generics and non-generics (see, for instance, the difference between *a tiger* and *tigers* under generic and non-generic interpretations). We will refrain here from going into the extremely difficult question of how different generic variants (definite singular, definite plural, bare singular, bare plural, indefinite singular), when found side by side in a particular language, can be semantically interpreted and distinguished from each other. The following remarks should suffice. In many languages, it is possible to shift back and forth between singular and plural generics in a generic text dealing with a certain kind (species) and still refer to the same kind. In English, a generic singular antecedent can even be anaphorically referred to by a plural pronoun – in opposition, for instance, to German where a similar change of number values would be less tolerable. This can be illustrated by the examples in (8a.) (a spontaneous translation of a German sentence by a native English speaker) and (8b.) (an original English sentence taken from British National Corpus).

- (8) a. Seit 100 Jahren ist **der Luchs** [SG.MASC] bei uns ausgestorben - in Bayern wird **er** [PRO.3SG.MASC] jetzt wieder gesichtet. (TV Today 26.4.1998)
 ‘**The lynx** has been extinct here for 100 years - **they** have been sighted again in Bavaria recently.’
 b. Given good conditions **a goldfish** will live for 10-20 years. In occasional cases **they** may live for over 40 years. (BNC)

It appears, then, that by including generics in the cross-linguistic determination of optional plural marking, we would very soon arrive at a classification of most of the world’s languages as having an optional plural - if only because of the general number variation between nominal generics.

Not only does a common source of confusion arise from the fact that single sentences or constructions are misinterpreted in terms of the constructional semantics of the translations, as was shown above, but also from the fact that distinct semantic phenomena are generalized according to their prototypical formal realization in a selected model language.

In the Anglophone literature on languages other than English we observe a strong tendency to use the following terms as near-synonyms: “generic”, “mass”, “non-referential”, and “collective”. MacWhinney (1989: 232), for instance, characterizes Hungarian bare singulars occurring in the “focus/modifier-verb” construction as “tend[ing] to take on a meaning of mass or generic quality” – in opposition to definite nouns. In the same spirit, Craig (1986: 270) describes Jacalteco bare singulars as either “non-referential mass” or “generic non-referential”. As for the Hungarian construction, however, MacWhinney’s

terminology is somewhat confusing. As demonstrated above, the bare singulars in question crucially differ from "true generics" nor do they have the prototypical semantics of mass nouns (as observed in languages with a mass-count distinction). One has the suspicion that the partly interchangeable use of these four terms is motivated by certain language-specific properties of English. If mass nouns have a core semantics at all, in spite of their diversity, then it resides in their potential of referring to homogeneous substances in an unbounded region (e.g. *gold*, *sand*, etc.). Such prototypical mass nouns and generically used nouns have a feature in common which connects them more strongly to each other in English than in other languages, viz., the bare singular. The bare singular constitutes an indicative context for mass nouns and the most frequent constructional variant for generically used nouns. It is probably nouns such as *furniture* that are responsible for lumping together the terms "mass" and "collective" as semantic descriptors. These nouns are lexically restricted to the syntactic environments of prototypical mass nouns, i.e. they are mass nouns from a syntactic point of view. On the other hand, they lack some important features of prototypical mass nouns (e.g. "divisivity") and generally, collectivity is not necessarily realized by mass nouns, not even in English. Ironically, we may find contexts even in English which make the semantic difference obvious. Consider the ambiguous sentence (9) containing the phrase *some fish*: it can be understood as referring to a "grinded" substance (i.e. food) or to a collection of animals. The ambiguity is caused by collapsing of two different lexical patterns, namely the alternation between discrete objects and "grinded" substances, on the one hand, and the alternation between single objects and collections (having ceased to be productive in this specific case), on the other; in the second case, the collective reading is conventionalized blocking the plural of the singulative reading.

(9) He gave me some fish.

In the long history of universals research, it has occasionally been proposed that we should develop a linguistic reference system on the basis of a natural language. So why not choose English as a tertium comparationis in typology - given the fact that English is at present the best-investigated language? We will not go deeper into this question but make instead a little experiment of thought, asking the following question: would we consider the English plural to be obligatory if we were to approach it from the perspective of other language systems in the spirit of the argumentation criticized here? We do not have to go that far; it will suffice to compare two varieties of English (British English and American English). As observed by Paul Hopper (Lingtyp: 5.11.1998), compound modifiers in British English are often marked by plural where American English would use the singular (e.g. BrE *arrested on a drugs charge*/AmE *arrested on a drug charge*). In the spirit of how "optionality" is used with respect to Hungarian, American English would have an "optional" plural as well, considered from the perspective of British English - and both languages would have an "optional" plural if approached from a language that works throughout like this British English example. During the Lingtyp discussion, David Gil has made a very challenging contribution to the topic of the "optionality" of the English plural, which was partly not understood and - we believe unduly - criticized by many of the discussants.

"In English there are quite a few cases of number marking being optional. First, the obvious case of nouns denoting homogeneous substances, such as "gold". Then, the somewhat less obvious case of nouns which English, somewhat idiosyncratically, groups together with mass nouns, eg. "furniture". Then ... big game, as in "Yesterday the hunters bagged three elephant"." (David Gil, Lingtyp: 10.11. 1998)

The main objection was that this kind of argumentation entails a potential problem of circularity. In somewhat simplified terms: the English nouns *gold* and *furniture* are mass-

nouns (or non-count nouns). It stands to reason that, since they do not mark number, that is in fact how we know that they are mass nouns (cf. Alan King, Lingtyp: 12.11.1998). Consequently, they should not be taken into account when determining optionality of plural marking. But why not? The crucial question is what kind of semantics determines our view of the mass-count issue: a "naive denotational" approach, forcing us to look upon meaning from an ontological viewpoint, or a "representational approach", permitting the categories of "mass" and "count" to be considered as the result of how speakers (conventionally or ad hoc) conceptualize their environment. The main criticism against an ontological approach is that even related languages with a similar system of mass-count distinction may differ in their categorization. Given this, it is hard to see why we should assume that some languages, which do not use the plural in particular lexical classes, display optional plural marking while at the same time excluding English mass nouns as irrelevant for the question of optional plural marking.

In actual fact, materials normally occur in the world within bounded regions (i.e. in pieces, in containers, etc.). There is thus no ontological necessity for them to be realized by linguistic forms which focus on their homogeneity (i.e. by "mass nouns"). One might imagine a language which systematically uses the same forms for bounded and unbounded conceptualizations, generally allowing direct counting and pluralization (Hungarian and Greek come fairly close to such a situation.). From the perspective of such a language, the fact that so-called "primary mass nouns" in English may be counted and pluralized only under certain restricted pragmatic conditions – which is usually described in terms of lexical rules converting mass nouns into count nouns (e.g. *two milks*) – would appear as a perfect manifestation of optional plural marking. Finally, Gil's third example (singular use with "big game") appears to reveal a systematic collective-singulative alternation, which is comparable to those discussed above for Hungarian. If those constitute a case of optional plural marking, then cases such as the English one must of course also be included.

As is well-known, English is strongly subjected to number-agreement mismatches. This fact has led some linguists to doubt the traditional wisdom that English number agreement is syntactic in nature and to propose a semantic account instead (cf. Pollard/Sag (1994)⁷ for a general discussion of semantic vs. syntactic determination of English agreement). At any rate, a great number of lexical classes pattern differently with respect to the interaction of class-specific properties, semantically triggered variation in agreement and general syntactic constraints. Consider, for instance, the collective nouns *police*, *faculty*, and *staff*, each of them lacking an overt plural affix: the first is confined to plural agreement, while the others allow both singular and plural agreement but under different semantic conditions (cf. Pollard/Sag *ibid.*). In contrast, Hungarian hardly tolerates agreement mismatches - with a few exceptions already mentioned above (e.g. some collective proper nouns in plural agreeing with a singular verb). In particular, the type of mismatch "plural verb & noun(s) lacking a plural affix as subject" is strictly ungrammatical. It can be said that number agreement in Hungarian is, in principle, morphologically controlled by the presence of a plural affix. This is the reason why coordinated phrases containing two singular phrases tend to be combined

⁷ The reader should also consult Wickens (1992). He works out the terminological (and theoretical) confusion in this area in detail. For instance, the collective noun *police* is sometimes classified as a plural form (containing a zero allomorph of plural), sometimes as a singular form. By the same token, *measles* is considered by some linguists (e.g. by Jespersen) as a "singular invariable noun" and by others (e.g. by Quirk et al.) as a "plural immaterial mass-word" (for quotations see Wickens).

with a singular verb whereas coordinated phrases containing at least one plural phrase generally require a plural verb. It is generally accepted that agreement (by virtue of its signaling a syntactic requirement) is the most important criterion for assigning "inflectional" status (as opposed to "derivational") to a morphological category on a language-specific level. On this criterion, then, it seems that the inflectional status of Hungarian number is much more grammatically marked than that of English number.

At this point it could be objected that, at least, nouns such as *police* do not weaken the strong flexional status of English number since they contain a zero allomorph of the category PLURAL (cf. Frans Plank, *Lingtyp*: 11.11.1998). However, the very concept of "zero plural" (or that of "external plural") points to an infelicitous attempt to express a syntactic phenomenon in terms of morphology. On the other hand, it would indeed be useful, especially in a cross-linguistic framework, to think of nominal number as a category of phrases or sentences rather than of noun forms. The consequence of such an approach would be, though, that we would have to deal with two distinct questions with respect to sentences containing referring phrases: (a) is the number of referents made explicit by overt means?; (b) by which means and in which part of the grammar is overt marking done? Needless to say that in the case of Hungarian phrases containing a singular noun with a numeral, the answer to question (a) would be yes.

Let us close the discussion at this point with the conclusion that Hungarian does not qualify as a good example of "optional plural marking". What about classifiers?

In the *Lingtyp* discussion it was taken for granted that Hungarian has no classifiers at all (cf. Edith Moravcsik, *Lingtyp*: 5.11.1998). However, this point is far from being uncontroversial. Beckwith (1992), for instance, claims that Hungarian does have a small set of numeral classifiers ("unit classifiers" in his terminology) (e.g. *szál*_[+ long cylindrical], *szem*_[+ small roundish]), differing from ordinary measure nouns (cf. also Aikhenvald (1999), quoting Beckwith). It is the same problem of naive ontology and linguistic relativity discussed in detail above that lies at the heart of this controversy. The distinction between classifiers and other kinds of "unit counters" mediating between quantifiers and content nouns is usually linked to a binary division of nouns into count(able) and mass: classifiers are said to operate in the domain of count nouns, non-classifiers in the domain of mass nouns. For those who reject a naive ontology or one influenced by English, the danger of circularity in this association is obvious: the languages known to have genuine classifiers (e.g. East Asian languages) are precisely the same which are claimed to lack a (clear) linguistic distinction between mass and count nouns. In order to avoid this problem, some linguists try to prove that "true" numeral classifiers, beyond their affinity to mass nouns, differ from ordinary measure words in that they, unlike the latter, impose a semantic categorization on the nouns they combine with. Beckwith (1992: 199), for example, argues - unfortunately not very convincingly - that classifiers such as the Hungarian ones would provide a taxonomic specification of the classified nouns while measures such as English *bar*, *sheet*, and *plate* (as in *a bar of iron*, *a sheet of iron*, *a plate of iron*) "do not classify anything taxonomically, even though they may be limited to use with very few nouns".⁸ An alternative approach would be abandoning the idea of a clear distinction between classifiers and non-classifying unit counters and admitting that all (most) languages more or less have classifiers (cf. Allen

⁸ Beckwith is well aware of the fact that in Hungarian, "the distinction between count and mass nouns, which normally determines use of classifiers vs. measures in other languages, is often unclear" (1992: 200).

1977). Taking this position would, of course, imply that the universal quoted under (1) above makes sense only in combination with the restriction "as... dominant mode of forming quantification expressions".

Certainly, Hungarian cannot satisfy this restriction. Considering the possible candidates for classifiers, we find them applied in two fairly distinct cases?. In the first case, the morphemes in question apply only in certain lexically restricted domains. One type of the relevant classes can be characterized by a systematic ambiguity between a collective-singulative ambiguity as described above (cf. (10a.)). It can safely assumed that most of the other nouns which are allowed to be combined with *szál* (for long objects) or *szem* (for round objects) constitute a natural class as well, namely one whose members show a regular indifference (or "unspecificity") with regard to a conceptualization as homogeneous substance vs. discrete objects. That is to say, the noun *kolbász* is lexically indifferent between the meanings 'the material from which sausages are made' and 'a single sausage typically shaped as a long object'. Thus it may be equally combined with *szál* (when the first sense is selected) or directly counted and pluralized (when the second sense is selected) (cf. (10b.)). In both cases the result is a phrase with a singulative interpretation. The semantic difference correlating with these two types of alternative syntactic environments is much less clear than, for instance, that between a bare singular and a plural. While the concept of optionality (even in the sense of "free variation") is doubtless misguided for the latter, it approximately meets one's intuition in the case of our putative classifiers (disregarding sociolinguistic correlates).

- (10) a. fű ('grass'/'a blade of grass'), 'a blade of grass': egy ('one') fű ~ egy szál fű; haj ('hair'/'a (single) hair'), 'a single hair': egy haj ~ egy szál haj
 b. kolbász ('sausage substance'/'a (single) sausage'), 'a (single) sausage': egy kolbász ~ egy szál kolbász; gyertya ('candle substance'/'a (single) candle'), 'a (single) candle': egy gyertya ~ egy szál gyertya

In the second sense in which these morphemes are applied, they can be used with any nouns, including even nouns denoting humans. They then have a discourse function in which they can hardly any longer be termed "classifiers". This function consists in emphatically indicating that the predication is true of 'only one' or of 'not even one' object (cf. (11)). Since the negative contexts clearly dominate, the impression arises that *szál*, *szem*, etc. are on their way to developing into negative polarity items.

- (11) Egy szál férfi sem volt ott.
 one unit: long object man NEG was there
 'There was not even one single man there.'

Now does Hungarian have classifiers or not? The answer depends on how broadly we interpret this notion. In any event, if we proceed from a broad interpretation, the existence of classifiers must be accredited to other well-known languages (such as English) as well. Classifiers are thus another case, in addition to plural marking, to show in an excellent way that the status of a particular language with respect to implicational universals such as that under (1) (confirmation, non-applicability or counterexample) strongly varies with our methodology and certainly also with the preciseness of the respective universal's formulation. Case studies such as the present one could be continued ad infinitum, since every new implicational universal that contains a further category brings in its wake similarly serious problems. The two universals proposed by Gil under (12) would be a good example, for the question of optional/obligatory marking of (in)definiteness is to a similar extent controversial as that of plural marking:

- (12) a. "If a language has obligatory marking of (in)definiteness, then it has obligatory marking of nominal plurality (but not vice versa)."
 b. "If a language has obligatory marking of (in)definiteness, then it has no obligatory marking of numeral classification (but not vice versa)." (cf. Gil 1987: 263)

However, we would like to close this paper here and save the comments on this problem for a another study.

We have tried to show, in this paper, that a conception of typology, which is rooted in structuralism, is interested exclusively in questions of grammar, and operates with a limited understanding of semantics, results in strong effects of distortion and even in arbitrariness of the typological results. We have adduced arguments for the extreme importance, in typology as well as elsewhere in linguistics, of taking seriously language-specific semantics (lexical meaning, constructional meaning, discourse meaning) and simultaneously making the theoretical background explicit.

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