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Is English Really Unique among Languages of the World ?: A Typological Study with Special Attention to the English Preposition *FOR*

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The aim of this paper is to propose a new methodology to evaluate previously made universal claims for a certain aspect of linguistic phenomena. For this purpose, we will concentrate on Givon (1984)'s observation about the English preposition *for*. Givon argues that the conflation patterns of the English preposition *for* is unique among languages of the world, and therefore English is, at least for this point, different from the rest of languages. In order to evaluate his claim, most of this paper concentrates on the discussion as to how to establish adequate procedures for reexamination of his claim and other traditionally made typological claims. One major contribution of this paper is, therefore, our conclusion that the English preposition *for* displays typical conflation patterns of semantic roles found in languages of the world and so Givon's claim must be rejected. Another important contribution of this paper would be our strong suggestion that many (or most) previous typological studies and claims must be reexamined because they are based on inadequate language samples and/or procedures.

Key words: Conflation/Combinatorial pattern, Gramcats sample, Language sample, Preposition, Typology (typological)

1. On Givon (1984)'s approach to the English preposition *for*

This section will briefly consider Givon (1984)'s observation on the semantic conflation pattern of the benefactive and purpose sense displayed by the English preposition *for*, as shown below.

(1) (a) Mary worked *for* her children. (Benefactive)
(b) Mary worked hard *for* her exam. (Purpose)

Concerning this conflation pattern, Givon (1984: 132) argues that "while both benefactive and purpose share a certain semantic feature of goal orientation, *their syntactic conflation in languages is not very common*" [emphasis: K.Y.].

Notice that Givon's claim may have far stronger influence than one might expect. If his argument is correct, then it can be concluded that English (or the English preposition *for*, to be more accurate) is peculiar among languages of the world. But there are at least two

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reasons to suspect the validity of Givon's claim.

The first reason is derived from the intuition of many linguists. Although their explanations for the relationship between the benefactive sense and the purpose sense differ in some way or other, the essence of their explanations can be summed up as follows; these two senses can be expressed by the same grammatical form (e.g. pre/postposition) because they have the same semantic (or image-schematic) structure (see Croft 1991 and Heine et al. 1991 among others)[1]. The following example helps us visualize the intimate relationship between these two senses.

(2) (a) I bought a dressing table *for Mary.*
(b) I bought a dressing table *for the bedroom.* (Heine et al. 1991: 157)

Notice that the two distinct senses displayed by the preposition *for*, the benefactive sense in (2a) and the purpose sense in (2b), evoke the same semantic structure (or image), although the preposition with the former sense usually takes a human participant, and the one with the latter sense, a non-human participant (object). This intuitive judgment gives us one reason to suspect Givon's observation.

The second reason is empirical: it is so easy to point out languages in which the same grammatical form is used to express these two semantic roles (such as Abkhaz, the Caucasian language and Alyawara, the Australian language).

So far, we have indicated two reasons to suspect Givon's observation. But as one might notice, these reasons, no matter how plausible they may appear, will never be conclusive, and then our discussion, without sufficient and adequate procedures or criteria, will never find an answer of whether the English preposition *for* is unique among languages of the world.

2. Methodological issues

The previous section suggested the necessity of an adequate procedure to evaluate typological claims such as Givon's. The major goal of this section is, therefore, to propose procedures, which allow us to evaluate, in an appropriate manner, Givon's claim.

2.1 Language sample

This subsection considers how languages should be sampled in order to allow us to make the best possible inference about whether a certain linguistic phenomenon in question is unique or not. Although it seems obvious in other social sciences that the primary purpose of sampling is to make some inference about some value of population, and then a sample should be created so as to reflect nature of population, this does not seem to have been true with the field of Linguistics. Most previous language samples of typological studies, if not all, may have been far from satisfying ones to predict certain kinds of universal linguistic behaviors mostly because of genetic or areal biases: most of them are

either dependent on the investigator's knowledge of languages (what Bell (1978) calls "judgment sample") or on how accessible languages are (what he calls "convenient sample"). These studies have the disadvantage of introducing either genetic or areal biases, over-representing properties found in certain language families or in certain geographical areas (see the discussion of Stolz (1997)). These biased samples can be found even in influential works such as Greenberg (1963), Comrie (1976), Nichols (1986), Hyman (1977), Stassen (1985), Talmy (1985), and Croft (1991) among others. Given that "without an adequate sampling strategy, sample may suffer from various kinds of bias" (Rijkhoff et al. 1993), then how can "an adequate sampling strategy" be created ? This study will argue that an appropriate language sample, on which universal claims can be made, must take the following five criteria into consideration (note that these criteria are not the author's original: they are found in such studies as Bell 1978, Bybee 1985, Bybee et al. 1994, Comrie 1981, Croft 1990, Dryer 1989, Perkins 1989, Rijkhoff et al. 1993, Tomlin 1986, Wood et al. 1982).

2.1.1 Every language must have an equal chance of being selected, that is, random sampling must be used

The primary purpose of any kind of sampling is to infer some value of a target population from a sample, and this implies that a sample must somehow reflect the nature of the population as a whole. Then, how can it be guaranteed that a sample enables us to visualize its plausible target population ? Or put in a different way, how can one justify the claim that the sample is not skewed by any kind of bias, and is parallel to its population ? In a response to these questions, most statistical approaches may defend themselves by following a procedure that ensures random sampling. In other words, "if our sample is not constructed according to a random procedure we cannot be confident that our estimates [for a population: K.Y.] from it [a sample] are likely to be close to the population value . . . and any generalization will be of a dubious nature" (Woods et al. 1986: 52). The brief discussion made so far suffices to demonstrate that the assumption of random sampling is necessary to infer properties of the population (from the sample)

2.1.2 Languages in a sample must be stratified (stratified sample)

The second condition for trustworthy language sampling is that languages in a sample must be stratified. In order to choose the strata, a variety of ways can be conceived, but our common sense may indicate that two ways among other possible candidates are far more reasonable: choosing languages based on their genetic groupings and choosing languages based on their geographical locations. Although there are two major strata, this study puts a top priority on genetic distribution, partly because "areal stratification is much more problematic" (Rijikhoff et al. 1993). The main reason for this decision is reduced to our difficulty in finding appropriate unit for areally based classification, while in genetic classification, an appropriate unit is less controversial. For instance, distances between

language communities in sparsely populated deserts may be greater than between language communities in densely populated areas such as Western Europe.

The significance of paying sufficient attention to genetic affiliation can be demonstrated with examples from Russian and Czech (Croft 1990: 20). Both of these languages have the means to distinguish the locative sense from the motion sense: the same preposition, *na*, is used for both senses, but the locative case suffix goes with the locative sense, and the accusative case suffix is used for motion, as shown below.

(3) Czech

(a) *pokládám knihu na stůl*
I put book. acc. on table. acc.
'I am putting the book on the table.'

(b) *kniha leží na stol -e*
book. nom. lie on table–loc
'The book is lying on the table.'

(4) Russian

(a) *on položil knigi na stol*
he put.3sg.past books acc. on table acc.
'He put the books on the table.'

(b) *knigi ležat na stol -e*
books nom. lie on table–loc
'The books are lying on the table.'

Based on this observation, it is inappropriate to propose that a language with both adpositions and case markers make use of the latter forms to discern motion from location because the similarity between these languages is, according to Croft, "almost certainly the result of common inherence". In other words, this kind of evidence should not be regarded as a cross-linguistic fact that applies to all languages.

It has been noted that we should emphasize genetic grouping more than geographic locations of languages at issue, but this does not mean, however, that information on geographic location can be underestimated. Dryer (1989: 257) notes that "previous attempts to address such questions have underestimated the effect of areal phenomena, and that large-scale areal phenomena may be more widespread than is generally thought". One linguistic phenomenon to demonstrate the importance of geographical information is language contact. It is well known that two genetically unrelated languages may show the same (or similar) properties simply because they are spoken in the same area (see Mallison

and Blake 1981: 425; Comrie 1988: 86ff.; Matisoff 1990: 109). Therefore, in order to take into account information on geographical locations of languages in our sample, the information will be included in our data, and will be used wherever appropriate.

2.1.3 The sample should depend only on linguistic factors

The third condition for an adequate language sampling is that the sample should depend only on linguistic factors. This point may be best illustrated by a hypothetical example presented by Dryer (1989: 259). To begin with, let us imagine a hypothetical world with 1,000 languages. Suppose these 1,000 languages are scattered over eleven language families and there is one large family with 900 languages and ten small families, each containing 10 languages; all 900 languages in the large family are SVO, but the languages in the ten small families are all SOV, and this means that in this world, 90% of the languages are SVO, while only 10% are SOV. Then, the question is 'what could we conclude from the state of this hypothetical world ?'. Would it be correct to conclude that because 90% of the languages have SVO order, there must be a linguistic preference for SVO ?' The answer, Dryer argues, must be negative: the higher frequency of SVO order is probably due to non-linguistic historical facts (such as genetic, areal, or political reasons; see Dryer (1989) for more details). In fact, if we assume that each of the families is areally and genetically unrelated to one another in this hypothetical world, it seems reasonable to conclude that there is a linguistic preference for SOV order, despite the fact that it is found in only 10% of the languages in that world. This is, Dryer argues, because of the fact that the number of SOV families would outnumber SVO families by 10 to 1.

2.1.4 An adequate language sampling should include as many languages as possible

The forth condition for a trustworthy sampling is that an adequate language sample should include as many languages as possible. For the purpose of illustration, let us consider the fact that most well studied languages appear to possess distinct grammatical devices to distinguish the ablative sense from the allative sense. Based on this fact, one may argue that these senses cannot be expressed by a single grammatical device in any language. As might be obvious, this argument can only be evaluated by observing more languages of different genetic and areal groups, and in fact this procedure allows us to notice that this is not a correct statement, as the same grammatical morphemes display both senses in languages such as Tok Pisin, the Creole language spoken in New Guinea, and Slave, the Na-dene language spoken in Canada.

(5) Tok Pisin (Woolford 1979: 78)

(a)	*Tupela*	*meri*	*ia*	*ol*	*i*	*kisim*	***long***	*papa*	*bilong*	*ol.*
	two	girl		they		get	from	father	of	them

'The two girls, they got it from their father.' (ablative)

(b) *Bai yu go antap* ***long*** *ples.*
fut. you go up to village
'You will go up to village.' (allative)

(6) Slave (Rice 1989: 300, 302)
(a) *ʔewé* ***seghǫ*** *náihdí*
hide 1sg. from 2sg. buy
'you sg. buy a hide from me.' (ablative)

(b) ***seghǫ*** *náʔedló.*
1sg.at 3 laughs
's/he laughs at me.' (allative)

2.1.5 A sample should include as few languages as possible

The last condition for an adequate language sampling is that a sample should include as few languages as possible because more than a certain number of languages would inevitably include into the sample languages that are genetically proximate enough to introduce bias. A sample, therefore, should have as few languages as possible on condition that the sample provides enough data to evaluate one's hypothesis appropriately, or to discover frequency of some linguistic phenomenon.

Close attention should be paid to this last criterion because it may be canceled, depending on the questions one wishes to answer by means of the language sample: if the purpose of sampling languages is to discover a possible correlation or tendency of one or more phenomena (e.g., frequency of SVO vs. SOV), the last criterion should be taken into account (see Perkins 1989, Bybee et al. 1994); if on the other hand, the primary goal is to account for all possible diversity (say, for example, every possible lexical source developing to the Past, or Future sense), then one would disregard this fifth criterion, and instead collect as many languages as possible (for comments on these two different sampling types, see Rijkoff et al. (1993)).

Now we are in a position to develop (or choose) an appropriate language sample. The language samples that fit all the criteria above appear very limited, and among them, this study will use the Gramcats sample, which will be briefly introduced in what follows.

2.2 The Gramcats Sample

The Gramcats sample was created by Joan Bybee, Revere Perkins, and William Pagliuca with special attention to, among other things, "how to achieve universality in selecting languages to study", and "how to achieve comparability in the information about those languages" (Bybee et al. 1994). Based on their previous research with a sample of fifty languages (Perkins 1980, Bybee 1985), they set up the number of languages between seventy-five to one hundred in the sample, making certain that these languages were all as

distantly related to one another as possible so as not to bias the sample in any way. As the universe of languages from which they selected their sample, they chose Voegelin and Voegelin's *Classification and index of the world's languages* (1978). There, the highest level of classification is the phylum, and some eighty phyla for the world's languages are identified. Based on the Voegelins (1978)' work, Bybee et al. gathered every small phyla, those containing from one to six languages, into what they call a "minimal group". Fig. 1 shows the distribution of languages in the Gramcats sample in the minimal groups and the larger groups.

Fig. 1

55 minimal group: 47 isolates (groups containing only one language), 8 groups with 4 to 6 members
24 other phyla: phyla ranging in size from 22 languages to 1,046 languages

(Bybee et al. 1994: 29)

The disadvantage of this sampling procedure rather than following the Voegelins is that the diversity of language isolates may not be appropriately evaluated. Despite this disadvantage, Bybee et al. decided to adopt this strategy because it allowed them to solve the problem raised by Perkins (1980)'s sample: "the inclusion of isolates had the effect of putting a disproportionate number of North American Indian languages in the sample, and these turned out not to be so diverse in their morphological characteristic as one would expect of unrelated languages (cf. Greenberg 1987)" (Bybee et al. 1994: 29).

The next problem they faced in constructing the sample concerned pidgin and creole languages. Voegelin and Voegelin classify these languages into the language group that has the languages from which most lexical items in pidgins and creoles have been derived. For example, English-based pidgins and creoles are classified as Germanic. Since the study of Bybee et al. concerns verbal grammatical categories, they could not adopt the lexicon-based classification of the Voegelins. Their solution to this problem was to group all the pidgin and creole languages together and select one from this group. Their justification for doing this is that pidgin and creole languages are very similar to one another in terms of such elements as tense, aspect, and modal system (see Bickerton 1975).

Finally, consider the rest of the twenty-four major phyla. Phyla with fewer than forty members such as Macro-Algonquian languages, or Aztec-Tanoan languages, each provide one language to the sample. Phyla with more than forty languages each provide more than one language, and the number of languages selected from the phyla depends on how many languages make up their subgroups: if a phylum has primary subgroups with more than twenty member languages, then one language was chosen from each of these primary subgroups; if one of these primary subgroups is further divided into secondary subgroups of

twenty languages, or more, one language is selected from each of these subgroups. Fig. 2 provides an example of this sampling strategy. Afro-Asiatic phylum has six subgroups and one of these subgroups, Chadic, has two secondary subgroups, each with more than twenty languages.

Fig. 2

Maximal Group	Primary Subgroup	Secondary Subgroup
Afro-Asiatic (209)	Chadic (108)	East Chadic (32)
		West Chadic (76)
	Berber (24)	
	Cushitic (29)	
	Omotic (23)	
	Semitic (24)	
	Egyptian[a] (1)	

[a] Primary residue (Bybee et al. 1994: 30)

Following the procedures described above, one East and one West Chadic language and one language from each of the other five primary subgroups were selected for the Gramcats sample.

Based on these procedures, the number of languages in the language sample turned out to be ninety-four, although materials of only seventy-six languages were available to them because, as Bybee et al. (1994: 31) note, "it turned out to be impossible to obtain appropriate reference material on some of the subgroups from which our procedure required us to select languages" (for justification of this sampling, see Bybee et al. 1994).

2.2.1 The languages used in this study

The Gramcats Sample is used in our study because the sample meets all the criteria introduced above: the sampling was random, it is a stratified sample, and the 76 languages in the Gramcats sample were chosen to be maximally unrelated to each other by means of the sampling method mentioned above. The only difference between the Gramcats sample and the sample used here is that this study has chosen only 26 languages from the Gramcats sample. These languages were randomly selected on condition that one language must be selected from each of 24 phyla, and one from the minimal group, and the one from the group of pidgins and creoles (cf. Svorou 1994, Woodworth 1991). It is obvious, then, that our sample does not provide as much information as the Gramcats sample, but nevertheless, this study chose this sampling method because it allows us to examine each language more thoroughly than would have been possible otherwise. The languages randomly chosen for our study turned out as follows:

Fig. 3
Language sample used in this paper

Language	Genetic Affiliation	Location
Abipon	Ge-Pano-Carib	Argentina
Abkhaz	Caucasian	Russia Federation
Alyawara	Australian	Australia
Bari	Nilo-Saharan	Africa
Buriat	Ural-Altaic	Russia Federation
Chacobo	Andean-Equatorial	Bolivia
Cheyenne	Macro-Algonquian	USA
Dakota	Macro-Siouan	USA
Guaymi	Macro-Chibchan	Central America
Inuit	Unaffiliated	Greenland
Karok	Hokan	USA
Koho	Austroasiatic	Vietnam
Kui	Dravidian	India
!Kung	Khoisan	Angola, Botswana
Lahu	Sino-Tibetan	China, Burma, Thai
Margi	Afroasiatic	Nigeria
Modern Greek	Indo-European	Greece
Motu	Austronesian	New Guinea
Mwera	Niger-Kordofanian	Africa
Palantla Chinantec	Oto-Manguean	Mexico
Papago	Aztec-Tanoan	USA
Shuswap	Salish	Canada
Slave	Na-dene	Canada
Tok Pisin	Creoles	New Guinea
Yagaria	Indo-Pacific	New Guinea
Zuni	Penutian	USA

According to the Voegelins' classification, this language sample, no single language belonging to the same phyla, avoids every possible genetic bias, but this ideal situation is only attainable by limiting the number of languages too far from being sufficient: fewer than thirty languages may not provide sufficient information. For this reason, another kind of supplementary sample will be suggested and called henceforth 'the secondary sample' to contrast it with the sample so far discussed, which will be called 'the primary sample'. Our

second sample consists of the following thirty eight languages.

Fig. 4. Secondary Sample

Arabic (Afroasiatic), Baka (Afroasiatic), Bihari (Indo-European), Burushaski (Language Isolates), Diyari (Australian), Dogon (Niger-Kordofanian), English (Indo-European), Ewe (Niger-Kordofanian), Evenki (Ural-Altaic), Finnish (Ural-Altaic), French (Indo-European), Ga (Niger-Kordofanian), German (Indo-European), Hausa (Afroasiatic), Hualapai (Hokan), Hungarian (Ural-Altaic), Indonesian (Austronesian), Island Carib (Andean-Equatorial), Japanese (Unaffiliated), Kashimiri (Indo-European), Kannada (Dravidian), Korean (Unknown), Lingala (Niger-Kordofanian), Malayalam (Dravidian), Maltese (Afroasiatic), Marathi (Indo-European), Mongolian (Ural-Altaic), Ngiyambaa (Australian), Punjabi (Indo-European), Spanish (Indo-Eurorpean), Sumerian (Language Isolates), Tibetan (Sino-Tibetan), To'aba'ita (Austronesian), Turkish (Ural-Altaic), Vayu (Sino-Tibetan), Welsh (Indo-European), Yoruba (Niger-Kordofanian), Zande (Niger-Kordofanian)

It must be admitted that the secondary sample is not as carefully controlled a sample as the primary sample to introduce as little bias as possible. That is, this sampling procedure used to assemble the secondary sample paid less attention not to introduce bibliographic, genetic, and areal biases, and therefore it underestimated the significance of random sampling and the risks of using secondary materials. For all these weaknesses, the use of the secondary sample can still be justified because of its advantage of providing a greater range of language data to supplement the small size of the primary sample.

2.3 How and what to code ?

The discussion so far tells us the languages to be investigated. The next question is which forms should be examined. Or put differently, which forms of these languages can be considered counterpart to the English preposition. This paper defines the forms to be examined as follows.

(7) The forms to be examined are the explicit and identifiable grammatical categories which display types of semantic relationship a noun has to the verb, or to the predicate (that is, semantic roles), and whose main functions are not to express grammatical relations, but semantic functions.

This definition allows us to exclude grammatical categories such as tense (the relationship between the moment of speech and an event designated by a proposition), aspect ("the

different way of conceptualizing the internal temporal constituency of a situation" (Comrie 1976)), mood ("how the speaker chooses to put the proposition into the discourse context" (Bybee 1985: 165)), gender and number (which both display paradigmatic relations in contrast with syntagmatic relations of nominal grams (see Nitta 1982: 118)), concord (the relationship between nouns and their dependents such as articles and adjectives found in Latin). This also leads to the exclusion of vocative, and genitive, the notions traditionally discussed under case, for the simple reason that they do not express the relationships between a noun and its verb. And the term 'identifiable' leads us to the exclusion of what has traditionally been called 'case' in highly inflectional languages such as Latin and Greek. Case in these languages is not identifiable in that (a) case markers are fused with stems and other grammatical categories such as gender and number in the way that it cannot be separated from others, and (b) different classes of stems display different range of distinction, that is, the paradigms (among different classes) are not isomorphic. The main reason to eliminate these traditional cases of highly inflectional languages is a practical one: it is, as many linguists have indicated, very difficult to determine their exact case systems.

2.4 The benefactive sense and the purpose sense

This paper defines the benefactive sense and the purpose sense as follows:

benefactive: an animate entity instead of whom an agent as its surrogate performs some action (e.g. 'She did the shopping *for* her mother.'); notice that despite the nomenclature, the NP in question does not necessarily benefit from the surrogate action (e.g. 'Taro lost the game for his team.'), and '(a surrogate) action' implies that this gram appears with an action verb rather than a state verb (e.g. ??'He was sad for Hanako.'). In fact, in Hungarian, benefactive marker cannot be used with a copular verb (Kenesei et al. 1998).

purpose: the result or consequence intended by an agentive initiator which is only realized through the activity designated by the verb (e.g. 'He went to the Red Rooster for some take-away.'). In most cases, a purpose construction implies the cause notion (e.g. 'Taro goes to school for his studies.' implies 'Taro goes to school because of his studies.').

3. Result and conclusion

Now we are in a position to evaluate Givon (1984)'s observation on the English preposition *for*. Our primary sample had 19 grammatical forms with either the benefactive or purpose (including forms expressing both of these senses).

Out of the nineteen forms in question, only four forms of the following languages express the benefactive sense to the exclusion of the purpose sense[(2)].

Buriat (*-tyløø*)	[**benefactive**/cause & reason]
Karok (*-ihi*)	[allative/**benefactive**]
Mwera (*pa*)	[location/exterior/**benefactive**/possessive]
Shuswap (*n-*)	[locative/allative/**benefactive**]

And the following five forms out of the nineteen in question display the purpose sense, but not the benefactive sense.

Buriat (*-tula*)	[cause & reason/**purpose**]
Karok (*ku*)	[cause & reason/means/**purpose**]
(*-ʔi*)	[cause & reason/**purpose**]
Margi (*gà*)	[cause & reason/function/**purpose**/result]
Papago (*hekaj*)	[cause/instrument/**purpose**]

The number of the grammatical forms expressing both the benefactive sense, and the purpose sense is 10 out of nineteen forms in the primary sample, as the following cases show.

Abkhaz (*-zə*)	[**benefactive**/recipient/cause & reason/**purpose**/reference]
Alyawarra (*-ika*)	[allative(?)/**benefactive**/locative/purpose/recipient]
Bari (*ko*)	[ablative/agent/allative/**benefactive**/cause & reason/ comitative/instrument/possessive/**purpose**/recipient]
Inuit (*-mut*)	[allative/**benefactive**/**purpose**/recipient]
Koho (*-ki*)	[recepient/**benefactive**/**purpose**]
Modern Greek (*ja*)	[allative/**benefactive**/function/**purpose**/reference]
Papago (*wehejed*)	[**benefactive**/**purpose**]
Slave (*-gha*)	[**benefactive**/cause & reason/path/**purpose**/reference]
(*-ko*)	[**benefactive**/**purpose**]
Tok Pisin (*bilong*)	[**benefactive**/cause & reason/possessive/**purpose**]

From the above observation, we can strongly argue that Givon (1984)'s observation on the English preposition is inappropriate. Contrary to his claim that the conflation pattern of the benefactive and the purpose senses found in English is not common, these two senses are much more likely to be conflated than being expressed by different grammatical morphemes, which is obvious from the fact that the probability of their conflation is double, or more than double than otherwise. Our secondary sample also supports our argument. Our secondary sample includes twenty six grammatical forms with either or both of these senses in question. Out of the twenty six forms, six forms express the benefactive, but not the purpose sense, and five forms, the purpose to the exclusion of the benefactive sense. The rest of the forms in question, that is, the fifteen remaining forms display both of them, and this means that the probability of their conflation is roughly three times more than otherwise.

This observation strengthens our argument that Givon (1984)'s observation is not correct.

Notes

The original seed of this paper can be seen in a series of the author's works (1999, 2000a, b, c), and especially Yamaguchi (2000c) discusses the same topic as this paper does. However, this paper differs from them in that (a) based on many constructive opinions toward my previous studies, the methodology to make some typological claims has been revised, including the fact that the number of sampling languages increased from twenty six to sixty-four.

(1) Givon himself notices their common structure ("certain semantic feature of goal orientation").

(2) For those who are interested, other senses, or semantic roles are also listed.

Selected References

(The reference materials used for the sixty nine sampling languages are not included here.)

Bell, Alan. 1978. Language samples. Joseph H. Greenberg, Charles A. Ferguson and Edith A. Bybee, Joan L. 1985a. *Morphology: A study of the relation between meaning and form.*

Bybee, Joan L., William Pagliuca, and Rever Perkins. 1994. *The Evolution of Grammar: Tense, aspect, and modality in the language of the world.* Chicago: University of Chicago Press.

Moravcsik (eds.), In *Universals of human language, vol. 1: Method and theory,* 123–56. Stanford: Stanford University Press.

Croft, William. 1990. *Typology and universals.* Cambridge: Cambridge University Press.

————. 1991. *Syntactic categories and grammatical relations: The cognitive organization of information.* Chicago: University of Chicago Press.

Dryer, Matthew P. 1989. Large linguistic areas and language sampling. *Studies in Language,* **13**, 257–292.

Givón, Talmy. 1984. *Syntax: A functional-typological introduction, vol. 1, 2.*

Heine, Bernd, Ulrike Claudi, and Friederike Hünnemeyer. 1991. *Grammaticalization: A conceptual framework.* Chicago and London: The University of Chicago Press.

Stolz, Thomas. 1997. Some instruments are really good companions-some are not. On syncretism and the typology of instruments and comitatives. *Theoretical Linguistics, vol. 23, No. 12.*

Voegelin, C. F., and F. M. Voegelin. 1978. *Classification and index of the world's languages.* New York: Elsevier.

Woods, Anthony, Paul Fletcher, and Arthur Hughes. 1986. *Statistics in language studies.* Cambridge: Cambridge University Press.

Yamaguchi, Kazuyuki. 1999. How to Explain Polysemy of Case Markers: A Typological Study. Paper Presented at Linguistic Society of America Annual Meeting. Los Angeles: USA.

————. 2000a. Zenchisi, Kochisi ga arawasu imihenka no mekanizumu to sono seiyaku. Paper presented at The 20th meeting of the Linguistic Society of Japan, Chiba.

————. 2000b. A Typological Study of Semantic Extensions in Case/Adpositions. *Proceedings of the 24th Annual Meeting.* Kansai Linguistic Society.

————. 2000c Gengo fuhensei to gengo sanpuru [Language universal and language sampling]. *The Silphe Society,* Tokyo: Kinseido.