LANGUAGE USERS' LINGUISTIC CREATIVITY: ITS IMPACT ON WORD FORMATION FOR TRANSLATION

Dr. Seyed-Ali Miremadi
University of Allame Tabatabaei

Abstract

One of the most problematic issues each translator may face in the process of translating is the non-translatability of certain concepts which do exist in the source language but have no distinct phonetic realizations in the target language. The existence of semantic voids is a problem and how they should be labeled to function in the target language is yet another. Translators make conscious or even subconscious efforts to compensate for the shortcomings. Most often, translators' introspections lead to coining words which may satisfy the translators themselves but, by no means, the readers. Introspection-oriented coinings flash and then disappear as fast as their advents without leaving any apprehension in their readers. Translators may even resort to published dictionaries which mostly cover words in literature. They may not be aware of the fact that language users' intuition is a valuable source. In an experiment conducted by the researcher on freshmen and sophomores of the College of Translation, a number of unexpected and first-encountered scenarios were developed and the subjects were asked to provide a label for each of these novel situations. The results indicated that language users, benefiting from predetermined patterns, could produce words which substituted the source language labels. Native speakers tend to resort to usual strategy of creating a new name by expanding the semantic range of some existing words or by recombining morphemes. What these strategies are and how translators can benefit from the vast linguistic knowledge the language users possess have been fully dealt with in this paper. Words initiated by the language users tend to be appreciated and accepted by the readers. The results originating from the second part of the investigation proved that people comply with what they have themselves innovated.

Introduction

One of the most significant properties of human languages is productivity. This property, among others, is unique to human beings and it differentiates them from other creatures. They are not only endowed with the power to manipulate their linguistic capabilities to produce new utterances or expressions, but they can also evaluate expressions produced by other native speakers in the same speech community and can select the ones which they think will be more appropriate and convenient to them. They do not tend to yield to the unwarranted or groundless alternatives offered to them.

Language users, when encountered with new expression is accessible they do not hesitate to create one to substitute the zero option. What really enables them to develop such unprecedented strategies are and have been subject to numerous studies conducted by scholars in all fields of science in general and in

linguistics in particular. Although many facts about the efficiency of human beings in language use still need to be discovered and explained, nevertheless, one thing that is securely guaranteed is the fact that language acquisition and use is rule-governed. Linguists should find evidence to support the idea that language users, whenever faced with new environments, use their power of creativity to produce semantically and syntactically appropriate constructions and labels to satisfy their environmental, social, conceptual and psychological needs .

To test and evaluate the Persian speakers' power of creativity in word-formation, a research was conducted by the researcher in an attempt to discover the strategies. The followings describes the methodology executed and the results achieved through the lengthy processes of collecting and analyzing the data. We hope that the results will stimulate and encourage researchers and Iranian linguists to conduct further experiments in this area.

In this paper, besides the review of literature and the analysis of relevant studies pertinent to human beings endowment of language productivity, the experiments conducted and the results obtained will be explained in detail.

2. Review of Literature

R. Brown (1958), in 'Words and Things' elaborates on the issue of creativity in language, particularly in word formation. He claims that human beings, in creating words in their languages, resort to the usual strategy of creating a new name either by "expanding the semantic range of some word'' or by "recombining morphemes" (p. 139).

Chomsky (1966) tackled this same issue and emphasized the fact that language users never hesitate to use their linguistic abilities to create new sentences. He has stated that,

"The most striking aspect of linguistic competence is what we may call the 'creativity' of language, that is, the speaker's ability to produce new sentences, sentences that are immediately understood by other speakers although - they - bear - no - physical resemblance to sentences which are familiar" (Topics, P. 11).

Though Chomsky's concern is mostly pertinent to sentence making and units longer than words, nevertheless, creativity should not be confined to sentences but can also be relevant to word formation and semantic expansion.

Chomsky's development of the notion of creativity was a reaction to habit oriented theories which assumed that speakers of a language are machines with no power of innovations. Chomsky (1968) States:

"The creative use of language is quite incompatible with the idea that language is a habit-structure.... you are constantly producing new sentences in your lifetime-that's the normal use of language." (Cited in Radford 1986, p.15)

Creativity enriches one's power of innovation and enables language-users to curve round the linguistic barriers they may face. Deviation from the linguistic norms of the speech community adds markedness to language, and paves the way for inevitable changes. David Crystal (1971) deals with this issue and states:

"Society does not tolerate too much idiosyncrasy, too much originality, in language. The person who deviates too markedly from the standard forms of the language in an idiosyncratic way is either hailed as a great poet or classified as belonging to one of a very small number of categories..." (pp. 33-34).

Nevertheless, idiosyncrasy, though it seems to be a violation of and a deviation from normalities, is regularized later and accepted as a norm. However we do resist against what is considered repetition. Chomsky (1972) focuses on this issue and elaborates this linguistic phenomenon as follows:

"The normal use of language is innovative in the sense that much of what we say in the course of normal language use is entirely new, not a repetition of anything that we have heard before, and not even to similar in pattern—in any useful sense of the terms 'similar' and 'pattern'—to sentences or discourse that we have heard in the past." (Language and Mind, p. 12).

Knowledge of language is not a solid rigid substance with no flexibility and fluidity. Though ingredients are limited, the amalgamations are numerous in number. "Competence", says Lepschy, "is...unlimited, in the sense that the number of sentences we could actually use, should the need arise, is infinite." (1975, 135). Chomsky (1975), dealing with the same issue, pinpoints the power of creativity and considers it as an endowed tool which enables language-users to create new utterances if required. He concentrates on sentence creations and not word-formations, but generalization can be made to expand the domain of his contributions. Chomsky, in "Logical Structure", states:

"A speaker of a language has observed a certain limited set of utterances in his language. On the basis of this finite language experience, he can produce an infinite number of new utterances which are immediately *acceptable to other members of his speech community*". (1975,

p.61) (Underlining is mine).

Word formation benefits from the same specific linguistic capacity that all human beings are endowed with. Languages need to be changed and expanded to satisfy needs, and most often, they do change in a predictable way. Wardhaugh (1977) states:

"At different times speakers of certain languages have shown noticeable resistance to borrowing words, and they have preferred either to exploit native resources or to resort to loan translations instead.

...Languages change in all kinds of ways, but the ways themselves are to some extent predictable." (pp 210- 213).

Julia Falk (1978) realizes creativity' as a major goal in linguistic analysis and states, "One of the fundamental aspects of language that must be accounted for by a grammar is its creativity" (p. 17). She further elaborates on this issue by realizing the fact that:

"Normal language use consists, in part, of creativity - the ability to produce and understand utterances never before encountered" (p. 377).

There is no stop in the flow of word creation, claims Falk, (1978) and language users never hesitate to create new ones. She further states:

"Through the basic processes of word formation, all people are capable of producing words - not only those words they have used or encoured in the past but also 'new' words." (p. 49).

Linguists should not confine themselves to the explanation of syntactic rules but should also make efforts to elicit and to formulate explicitly the system which underlies the linguistic knowledge which capacitates humans to use and expand language (Baker 1978, p. 4). Neologism, or creation of new words, should be studied and the strategies worked out eloquently (Wardhaugh, 1977, p. 209).

In the process of change, and if there are gaps of any type in the language network, they do not hesitate to systematize language through regularization. Word-formation or coining, among others, is a technique developed and manipulated even by children necessarily. Clark (1982) ' develops this notion as follows:

"Children... create new words to fill GAPS in their lexicon, to express meanings for which they have no ready-made words."

Hakes (1982), in his paper titled "The Development of Metalinguistics Abilities: What Develops?" elaborates on the very issue and, interestingly enough, claims that:

"The linguistic creativity of young children results from their not knowing enough NOT to be creative. (p. 196).

Created products, as claimed by Briskman, are novelties emanating from a well-established language system. Deviations are not unguided but have roots in originalities already existing in the relevant language system. In his words,

"One of the most striking features about created products is their appropriateness, the internal connection which exists between these products and the backgrounds against which they emerge." (Cited in D'Agostino 1988, p. 166).

Creativity is a problem solving process and native speakers do not hesitate to benefit from this natural capacity. In Briskman's words, "created product constitutes or incorporates a solution to a problem" (ibid). D'Agostino (1988) also elaborates on creativity as a means to facilitate the communication process and the ease of international procedures. According to him,

"Created products are solutions to problems, and... problems are defined by constraints which set limits within which the production of created products take place." (p. 176)

Sampson (1988), nevertheless, takes a reverse position by stating that no predetermined procedure can be imagined for the creating of linguistic innovations. The mechanism, as he claims, can be explained only after a language-user has anticipated and has gone through the process. His words run as follows:

"...it is intrinsic to the notion of creativity that the nature of creative acts cannot be predicted but can only he described after the event" (Cited in D'Agostino, 1988, p. 165)

He furthermore claims that:

"To be creative is to produce something which falls outside the class of any set of principles that might have been proposed to account for previous examples" (ibid, p. 165).

D' Agostino himself relates creativity to the satisfaction of a need by stating that "...the created product is an appropriate, but non-random, response to the circumstances of its production" (1988, p. 166). This natural endowment, as depicted by D'Agostino, is the inevitable effort exercised by language speakers to ease the difficulties of communication involved in expressing thoughts. "Human beings", he states, "are biologically preequipped with intellectual resources which can be brought to bear on those problems which they can formulate and solve" (p. 198).

Children as well as adults benefit from their language knowledge and their efforts to go through the process of creativity, by no means, confined to well rooted conventional strategies. They are directed towards word-formation and linguistic extension to cover all aspects of language as well. Lockie Elbers

(1988) expresses his views on this phenomenon as follows:

"...the creativeness of (child) speakers is taken to reside in their knowledge of syntax/morphology not in their ability to stretch the conventional boundaries of word meaning". (p. 592).

Elbers, furthermore, elaborates on the very same issue by stating that,

"When no adequate syntax and/or no appropriate lexical items are available, speakers may feel compelled to resort to innovative constructions (either metaphors, word compounds, or other kinds of innovations" (ibid, p. 594).

How these strategies are formed and how language users benefit from them require more research to be conducted and relevant analysis need to be made. The general principles which underlie this endowment should be worked out by linguists and researchers in the field of child language acquisition. Radford (1989) elaborates on this issue by stating that:

" . . . in order to account for native speaker's ability to produce and to understand new sentences, we must postulate that the child learning a language and faced with a certain data... abstracts from the data a set of general principles about how sentences are formed, interpreted, and pronounced." (p. 18).

. Finally, Radford concludes that "the task of the linguist...is to formulate sets of syntactic, morphological, psychological, and semantic roles." (ibid, p. 19)

In this paper, an attempt has been made to provide the readers with sufficient evidence to get a clear picture of how language-users benefit from their power of linguistic creativity to fill the linguistic gaps. The focus will, of course, be on word formation and morphological strategies for new innovations.

3. Hypotheses

Since all the participants in this experiment were Iranian undergraduate and college students, they were fully competent in Persian. Thus the language competency as a major variable was controlled. Scenarios developed for this study were equally novel to all subjects. Thus a second variable, namely the bizarreness of situations for some subjects and their ease for others was also controlled. The time allocated to each individual was also controlled. The remaining variable which could be measured was the degree of efforts made by each participant to create novel responses to new situations.

The general assumption was that, if a language-user were confronted with a novel situation for which there

was no proper known label in one's language, he or she could resort to the following strategies. This is what always happens when a translator comes across a word/concept in the source language for which there is no equivalent in the target language. The strategies are as follows:

a) The language user may avoid the concept

b) The language user may coin a nonsense word

c) The language user may use old morphemes at hand in his/her language to create words

d) The language user may follow the process of loan translation (claque)

e) The language user resort to the strategy of description.

Since no contrast between the two languages existed, option 'd' could be eliminated from the scope of the study. Additionally other possibilities could be expected. The following hypotheses were developed: In word-formation:

1. Subjects will follow predetermined patterns

2. Subjects will benefit from semantic and syntactic expressions to form words

3. Subjects will rarely, if ever, produce coined un-intelligible words

4. Subjects benefit eloquently from the old morphemes (plus their specifications) they already retain in their language cognitive ability.

5. Words initiated or formed by the subjects will be welcomed and appreciated by the language-users in the same speech community.

4. Methodology
Experiment I

A number of novel scenarios were developed. forty of them were randomly selected to be used in this research. The subjects consisted of fifty graduate students majoring in Persian literature, fifty students majoring in English literature and about fifty high school seniors from the School for Talented students. The subjects were asked to provide a label for each of these novel situations. The time allocated for each scenario was one minute. Nevertheless, some subjects found 40 minutes more than enough time to provide labels for the scenarios. The pretest exercised on smaller groups other than the participants indicated that the situations were quite new to the speech community. Two examples may illustrate the situations the researcher had developed to stimulate responses. (See the appendix for more examples)

item No. 1: A tool has been made and put at people's disposal. It enables one to scratch his back. What word do you use to refer to this tool?

item No. 32: Some kind of a vehicle has been

recently invented which can function as a submarine, a boat, an aeroplane as well as a spaceship. What should we call this kind of vehicle?

5. Procedure

The responses received from the subjects were listed and the frequencies were calculated. Responses from the students majoring in English and those collected from the under-graduates majoring in Persian literature were separated hoping to find similarities and dissimilarities as well as forms affected by foreign languages due to the participants' fields of study. The responses collected from talented students were separately dealt with in order to appreciate the possible disparities and discrepancies.

The responses were analyzed semantically and syntactically to figure out the common procedures followed by the subjects. The responses with the greatest number of frequencies were selected. Others including words with low frequencies, words already existing in Persian to denote existing concepts and the labels which were nothing but the verbal repetitions of scenarios or attached questions were discarded.

Experiment II

Seven responses out of numerous ones offered by the subjects were selected for each item. The criterion was the frequency of the labels. Since no subject had come up with a coined nonsense word, the researcher added one to each scenario. The nonsense words had no known Persian morphemes.

The scenarios were once more arranged in such a way that each one followed eight items, one of which was the nonsense word depicted and developed by the researcher. Fifty subjects from the Persian department and yet another fifty subjects from the English department other than those who participated in the first test (From Islamic Azad University) were asked to mark their choices. The participants' choices were numbered and the percentages were calculated. The selected labels (8 item for each scenario) were later analyzed syntactically and semantically.

6. Discussion and Analysis

The variety among words formed is amazing. Yet the trends they follow are still more amazing. In the first section of the experiment, various and numerous words and expressions were produced by the subjects almost all benefiting from old Persian morphemes. Yet, some of these morphemes are not active anymore in the current Persian system of morphology. No subject initiated nonsense coins as one might have expected.

Interestingly enough, linguists have claimed that this is a universal strategy.

On the other hand, words offered to refer to novel scenarios are not unlimitedly varied. Almost all participants follow known but numerous patterns. It is interesting to note that some undergraduates majoring in English (CSE), have now and then, benefited from the English language morphological system whereas the undergraduates majoring in Persian (CSP) literature, have occasionally though not frequently been affected by Arabic. Some examples are as follows:

[Sadism] in item 3 by CSE 'one who enjoys being cursed'

[hobo-ssab] in item 3 by CSP 'one who enjoys being
love insult cursed'

[abo-mobil] in item 6 by CSE 'A kind of vehicle
water-vehicle which consumes water instead of petrol'

[sayarat - o-l - ma?] in item 6 by CSP 'A kind of
vehicle water vehicle, which consumes water instead of petrol'

[akrobatik] in item 9 by CSE 'A kind of sport in
acrobatic which one is pulled by a jet in the sky'

[sexolmoJavez] in item 11, by CSP 'One who
chief-permission arranges wedding parties in villages'

[eynak-e-helen keleri] in item 13 by CSE 'A glass
glasses-of-Helen Keller through which you see nothing'

[sater -ol- eyn] in item 13 by CSP 'A glass through
covers- eyes which you see nothing.

[daruye motor cozer] in item 20 by CSE
medicine motor chooser 'Medicine to kill cancer cells'

[daruye mojazzeb saratan] in item 20 by CSP
medicine absorbing cancer 'Medicine, to kill cancer cells'

[moxarreb] in item 22 by CSP 'One who destroys
destroyer buildings'

[boldozer]   in item 22 by CSE.

[mons bal]   in item 26 by CSE 'A game in which a
mouth ball   bal is   puffed by one's breath into the
goal'

[ultra - operator]   in item 28 by CSE 'A device
ultra - operator   which eradicates L₁ knowledge
of language'

[tavafiye]   in item 32 by CSP 'A vehicle with
different functions'

[mozif-ol-?aql]   in item 33 by CSP 'A   kind of
adding wisdom   medicine which enriches
wisdom'

[mo?aqale]   in item 33 by CSP.

[hobo-ssah]   in item 5 by CSP 'one who enjoys
being

[majal -ol- layla]   in item 36 by CSE 'A newspaper
magazine   night   published at nights'

[?estomak-eskop]   in item 38 by CSE 'A tool which
stomach- scope   reflects what one finds inside of
the body'

[?enekasiye]   in item 38 by CSP 'A kind of
reflector

To appreciate the strategies used, the 40 items were
classified as follows:

1. **tools/instruments**
   a) electrical (items: 18, 24, 27, 31, 37, 38)
   b) manuals (items: 1, 8,10,12,13,14,16,17,25, 29,30,
   35).
   c) vehicles (items: 6, 32)
2. jobs (items: 2,11,19, 21)
3. abstracts (items: 3, 28)
4. concretes (food, medicines, chemicals, etc)
   (items: 4, 5, 20, 33, 34, 39, 40)
5. games   (items: 9, 26)
6. miscellaneous (items: 7,15, 22, 23, 36)

The items categorized as indicated were compared
taking into consideration the syntactic patterns each
response was founded on.

Results:

1. As far as electrical devices are concerned, two
   patterns dominate:
   a) Modified-Modifier
   (Mostly concerned with normal instruments) e.g.

| telefone | tasviri | تلفن تصویری |
| telephone | picture | |

| televiziyone | sāmet | تلویزیون صامت |
| television | silent | |

b) Noun + V
(Mostly concerned with potentially-Agentive devices)
e.g.

| zabān | pakkon | زبان پاک کن |
| language | eraser | |

| royā | āvar | رویاآور |
| dream | bring | |

| dorun | nema | درون نما |
| inside | show | |

2- As for manual devices, the dominant pattern is N +
verb, though other strategies are also infrequently used.
e.g.

| pošt | xar | پشت خار |
| back | scratch | |

| suzan | yāb | سوزن یاب |
| needle | find | |

| šekar | gir | شکرگیر / شکربا |
| sugar | take | |

| se? | gir | شی گیر |
| object | take | |

Others are as follows:
N + N + V + Number + N + Modifier marker
guš surax kon šeš surāxe   گوش سوراخ کن شش سوراخه
ear hole do six hole

N +	+N	دستمال سرفه
dastmāl	sorfe	
handkerchief	cough	

| časbe | kāset | چسب کاست / چسب نوار |

3. Interestingly enough, no nonsense word attracted
The attention of Participants from the Persian
Group, though participants from the English Dept.
showed positive reactions to some nonsense words.
Nevertheless the percentages never exceeded more than
13 % results:

[estro]   استرو   for guš surax kone šeš surāxe   13%
گوش سوراخ کن شش سوراخه

[čeleqtan] چلقتان   for časbe kaset   10%
چسب کاست

[zizāpā] زیزاپا   for māšine hamejāpeymā   7%
ماشین همه جا پیما

The percentages increase when there is some kinds

of phonetic (even partical) similarity between the nonsense word and the choice with the highest frequency

e.g.

č	in	čeleqtan	in contrast with	čæsb
				چسب
set	in	neston	in contrast with	ostovane
				استوانه
pā	in	zizāpā	in contrast with	peymā
				ماشین همه جا پیما
eskā	in	eskalp	in contrast with	Eski-y haevā?i
				اسکی هوایی

(probably influenced by the English word 'sky').

Nevertheless, since participants from the Persian Group showed no positive reaction to nonsense words and did not select any of them, the above conclusions are not reliable unless other tests arc developed and more data gathered.

General Conclusions

The first assumption, namely, that "the language users may avoid the concept" was rejected since all participants provided some kind of label as responses to novel situations even within the short periods available to them. No scenario was left without any response.

The results of this experiment indicated that 'Nonsense The results of this experiment indicated that 'Nonsense Coined Words" are never created by the native speakers. Moreover, there was no general tendency towards selecting the nonsense words even if they are produced by others.

All partieipants benefited eloquently from the old morphemes already existing in the lexicon of the Persian language. Even some morphemes which are not apparently active any more were brought into use to create words. e.g.

	(širin + o)	= شیرینو
اتومبیلی که با آب کار می کند	(āb + in-e)	= آبینه
دستگاه بالابرنده	[mo? ælæ q-e]	= معلقه
مسئول عروسی	[aranj marif]	= ارنج مریج
اسکی هوایی	(Jet + pol + i)	= جت پلی

1. guš surax kone šiš suraxe
   ear hole do six hole

   ۱ـ گوش سوراخ کن شش سوراخه

2. māšine hameJa peymā
   car everywhere

   ۲ـ ماشین همه جا پیما

3. bekargirandeye naxhāye qālihaye kohne
   user thread carpet old

   ۳ـ بکارگیرندهٔ نخهای قالی های کهنه

4. naxkonandeye qālihāye kohne
   thread-doer carpet old

   ۴ـ نخ کنندهٔ قالی های کهنه

5. širini bā ta?me xiyār va šireye xormā
   candies with tastĕ cucumber and juice dates

   ۵ ـ شیرینی با طعم خیار و شیره خرما

6. keyke xormā hamrāh bā xiyār
   cake dates accompanied with cucumber

   ۶ـ کیک خرما همراه با خیار

7. parvāze mottasel be havāpeymāye jet
   flying joined with plane jet

   ۷ـ پرواز متصل به هواپیمای جت

8. pāk konandeye zehn az zabāne ?aval
   clean doer language from language first

   ۸ ـ پاک کنندهٔ ذهن از زبان اول

9. dāru?i baraye hame no? nārāhatiye mu
   medicine for all kind ill hair

   ۹ـ دارویی برای همه نوع ناراحتی مو

10. dāruye ta?ine bolandiye mu
    medicine determination tall hair

    ۱۰ـ داروی تعیین بلندیٔ مو

11. dāruye kotāh boland kon
    medicine short tall do

    ۱۱ـ داروی بلند ـ کوتاه کن

12. dastgāhe divār rangkone bālā barande
    machine wall color do up taker

    ۱۲ـ دستگاه دیوار رنگ کن بالا برنده

13. dastgāhe rangāmize jarreesqāli
    apparatus color fixer crane

    ۱۳ـ دستگاه رنگ آمیز جراثقالی

14. bāziye fut-kon - o - bālā - andāz
    Play blow do it and over throw

    ۱۴ـ بازی فوت کن و بالانداز

There was a high correlation (75%) between the frequency of the words produced and the frequency of the words favored and selected by other native speakers.

The strategies used by the subjects are numerous, but not unlimited as far as the patterns are concerned.

Suggestions

In cases where a translator needs an equivalent for the new foreign concept, it is suggested that he or she benefit from speakers' great linguistic ability to produce words which will definitely be accepted by them later. Translators do not need to impose their creations on others, which may be later rejected.

Another research needs to be (developed) and conducted to appreciate the significance of time allocated to each scenario. The assumption is that, if more time is allocated, more eloquent expressions will be expected.

I suggest that in a new experiment, some words from other dialects be added to the choices to see if they are

favored by the speakers' of our speech community.

References

Briskman, L. 1980. Creative Product and Creative Process as Science and the Arts. Inquiry, vol. 22 (1980).

Brown R. (1958) 'Words and Things'

Brown Keith. 1984. Linguistics Today. Ontana Paper.

Chomsky, Noam, 1966. Topics in the Theory of Generative Grammar. Mouton, the Hague.

Chomsky, Noam, 1968.

Chomsky, Noam, 1972. Language and Mind. Hartcourt Brace, Javanovich, New Year.

Chomsky, Noam, 1975. Logical Structure of Linguistic Theory. Univ. of Chicago Press.

Crystal, David. 1971. What is Linguistics. Second Edition. Edward Arnold.

D'Agostino, Fred. 1988. Chomsky's System of Ideas. Oxford Press.

Fald, Julia. 1978. Linguistic and Language: A Survey of Basic Concepts and Implications. John Wiley and Sons, New York.

Hakes. 1982. The Development of Metalinguistics Abilities: What Develops?

Hammond, Michael. 1988. Theoretical Morphology. Academic Press. Calif.

Naremore Rita C. 1984. Language Science. Calif. Hill Press, San Diego.

Radford. 1989. Transformational Grammar. Cambridge Univ. Press.

Riemsdijk and Edwin Williams. 1986 Theory of Grammar. The MIT Press.

Sampson, G. 1975. The Form of Language London, Weidenfield and Nicolson.

Wardhaug, Ronald. 1977. Linguistics and Language. MacGraw-Hill. Book Company.

Yule, George, 1988. The Study of Language. Cambridge Univ. Press. New York.