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TO LEARN OUR MOTHER TONGUE

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The child knows the language
when he knows its
constructional mechanism
and how to use it....

Gustave Guillaume (1984:41)

INTRODUCTION

It is, I believe, generally accepted by the proponents of Generative Grammar that we come into this world endowed with a Universal Grammar. In itself the claim that a grammar constitutes part of our hereditary make-up is, to say the least, rather surprising. But if one considers what this view entails — the fact that the linguist must somehow account for how our species acquired this part of its genetic baggage — the reaction may well be one of questioning, if not of outright rejection of the hypothesis. Indeed, when I told a friend of mine, a physicist and a bit of a sceptic, about this idea of an innate grammar and mentioned that I had trouble accepting it, he remarked: "I quite understand your hesitation. You prefer grammar without miracles." And yet it has often been shown in the history of science that the strangeness of a hypothesis is not sufficient grounds for condemning it.

A more rational manner for judging a hypothesis is to examine the postulate(s) on which it is based. One is led to expect that there must be valid grounds for proposing this hypothesis by the fact that it is accepted by so many linguists. Unfortunately, an examination of the postulates does not confirm this expectation.

In this paper I shall first outline my understanding of the innate grammar hypothesis and the difficulties it leads to. The argumentation and facts of observation on which it is based will then be examined. I shall then show that this data base is incomplete and that, as a consequence, the hypothesis is inadequately founded. An alternative hypothesis for acquiring the mother tongue will then be presented, one based on what seems to me a more complete view of the data.

THE INNATE GRAMMAR HYPOTHESIS

This hypothesis can perhaps best be summed up by the following passage:

... In order to explain how children manage to learn a particular language rather rapidly from rather fragmentary evidence, it is of great importance to extract from grammars of particular languages a theory of *universal grammar*, that aspect of linguistic competence which is due to the human genetic endowment and which therefore need not be learned. It is in principle desirable to maximize the contribution of universal

grammar, since one can then claim that the choices a language learner has to make are relatively limited. On the other hand, of course, the choices left to the language learner must be sufficient to differentiate all known human languages. (Jackendoff 1983:8)

In a footnote, it is claimed that this passage is "a distillation of many discussions on this topic by Chomsky, especially Chomsky (1965)".

There are a number of points of interest here. Worth noting is passing is the notion that a theory of universal grammar is to be "extracted" from grammars of particular languages. This suggests a mode of theorizing based uniquely on induction, on filtering out what is common to all particular languages, and makes one wonder if other modes, such as depicted in Holton 1973, are excluded. If so, the only relation between the theory (universal grammar) and individual grammars is that of general to particular and the explaining potential of the theory is limited to this relationship.

Of more immediate interest to us here, however, is the reason for proposing that a theory of universal grammar should be extracted: to explain how infants acquire a language "rather rapidly from rather fragmentary evidence". Certainly, anyone who has given a moment's thought to the matter is struck by the rapidity with which an infant learns its mother tongue and, like any other object of wonder, this phenomenon is a proper concern for science. The procedure suggested here — to assume that any element common to all languages is genetically provided — will certainly make the task of the linguist easier, at least in the short term, because he will not have to account for the infant acquiring such elements. From this point of view it follows that "to maximize the contribution of universal grammar" is of considerable advantage because the problem of the individual acquiring language is proportionately minimized. However, from the point of view of linguistics as a science this gives one pause because it appears to reverse the order of scientific explanation. That is, morphological and syntactic usage in particular languages constitutes the empirical facts of linguistics and the rules of universal grammar the hypotheses or axioms, and as Einstein's well known dictum teaches us:

The grand aim of all science is to cover the greatest number of empirical facts by logical deduction from the smallest number of hypotheses or axioms. (Barnett 1959:112-113)

"Maximizing the contribution of universal grammar" would, if I have understood correctly, amount to increasing the "number of hypotheses or axioms". Granted Einstein's authority in the matter, one cannot but question the validity of the universal grammar hypothesis as a basis for language acquisition.

Another consideration, hinted at above, deserves mention here. The diachronic change discernable in human language is effected in large part when the younger generation reconstructs its mother tongue. With a maximized universal grammar which is genetically determined, one wonders just how innovation can take place. How, for example, can the system of the article, which did not exist in Latin, suddenly appear in Old French? To argue that it already existed in the universal grammar and merely had to be activated would simply

displace the question: *How would, in fact, put us in the curious situation where, in order to innovate something, we must already know it.* Furthermore, such an argument would be confronted with the obvious question: what activated the article at that particular moment? Indeed, this argument confronts an even more serious problem: how did the article, or the passive, or the plural or any other such abstract object of thought, along with the rules governing its use, get instituted in the universal grammar in the first place? That is, this hypothesis merely displaces the problem of acquisition from the level of the individual learner to that of the human race.¹

Such considerations suggest that the position of those who accept the doctrine of innate universal grammar as outlined above is hardly tenable. And yet one cannot simply reject the very notion of a general theory of language. To do so would leave us with a very large number of particular grammars but with no possibility of discerning a principle or principles underlying them. Linguistics, like any other science, is concerned with finding the general hypotheses or axioms that can explain what is observed in its object. It should lead us to a deeper knowledge not just of human languages but also of human language.

To find a more valid basis for a general theory, it will help if we can see what has gone wrong in this doctrine of universal grammar. In the above passage, it is asserted that infants reconstruct their mother tongue "from rather fragmentary evidence", a notion which calls for clarification. According to Chomsky (1965), the nature of what infants hear and build on

consists of a finite amount of information about sentences, which, furthermore, must be rather restricted in scope, considering the time limitations that are in effect, and *fairly degenerate in quality.* (p. 31; italics added)

Since "much of actual speech observed consists of *fragments and deviant expressions* of a variety of sorts", it is, as a basis for constructing "a generative grammar that defines well-formedness and assigns interpretations to sentences... *deficient in various respects*" (Ibid., p. 201; italics added). It follows that since an infant, according to Chomsky, does develop

an internal representation of a system of rules that determine how sentences are to be formed, used, and understood... he must possess, first, a linguistic theory.... [It is] this innate linguistic theory that provides the basis for language learning. (p. 25)

In itself, the argumentation here seems to be quite irreproachable and postulating a genetically endowed universal grammar follows as a necessity. And yet, as we have seen, this hypothesis leads to serious difficulties. It remains to examine the premises on which the argumentation is based to see if this will put us on the track of what has gone wrong.

The first assumption is that the "primary linguistic data" consists of "information about sentences". That it to say, infants reconstruct the grammar of their language on the basis of what they observe concerning sentences. At first sight, this appears to be quite acceptable if only because we always speak in sentences or sentence fragments, so by definition this is all the infant hears. Furthermore, because the sentence is such a widespread phenomenon every speaker must

somehow be able both to produce sentences and recognize them. Plausible though this assumption may appear, however, one wonders if it is not too restrictive, if, that is, the "evidence" can be limited to what concerns sentences. After all, in everything the infant hears there is another language universal, namely the word, and there appears to be no reason for excluding his observation of words as a source of primary data. In fact, there are several reasons that suggest the infant is concerned with learning how to produce well formed words at least as much as he is with learning how to produce well formed sentences.

One reason for thinking the word is no less important than the sentence is drawn from the observations cited above. It has to do with what is available to the infant-observer. The "data" concerning sentences is "deficient in various respects", "degenerate", "fragmentary" precisely to the extent that discourse is not made up of well formed sentences.² On the other hand, every stretch of discourse, whatever it be composed of — well formed sentences, phrases, interjections, etc. — is always made up of words. That is to say, words are necessarily omnipresent in discourse, even in those fragments that do not constitute sentences. Is it therefore not more plausible to assume that "primary linguistic data" consists of "information about" both words and sentences?

Another reason, following from the first, concerns the constructive processes of language. Since both sentence fragments and sentences are made up of words, it would seem not only plausible but necessary to learn how to construct words as a prerequisite to producing sentence fragments and sentences. This proposal runs counter to the widespread prejudice that because words come to mind ready-made, they must somehow be stored in that state and so we do not have to construct them. However it does not require a vast linguistic culture to realize that the word is not constructed in the same way in all languages, that, for example, the words of Eskimo have a structure different from those of an Indo-European language like English (see Lowe 1985, Introduction). It follows that the word structure of a given language must be learned if the speaker is to construct the words he needs in order to produce sentences. As a consequence, it seems that the infant's primary concern should be to learn the processes involved in word construction since this is a necessary prerequisite for producing sentences.

A third reason for the importance and even primacy of words in the acquisition of the mother tongue follows from the second and opens an alternative avenue for linguistic enquiry. The production of a sentence, we have seen, is often interrupted, suspended, abandoned at the will and whim of the speaker. Not so that of the word. In a language like English, cases of word construction being interrupted, suspended, abandoned are rare indeed simply because the processes of word construction escape our voluntary control. Words are almost always well formed, and in the rare cases where they are not, the speaker normally reconstructs the word (e.g. "That was very fun, uh, funny."³). This is of considerable consequence for linguistics: whereas the sentence gives rise to data which is "fragmentary", "deficient", "degenerate", the word gives rise to data which is whole, efficient, regenerative. That is, if we postulate that the infant sets about learning

how to construct the words of the language he hears around him, there is no need for an innate grammar to account for his ability to do so.

THE LEXIGENESIS HYPOTHESIS

Considerations such as these certainly throw a very different light on the question of language acquisition but they may appear, at first sight, to complicate the issue. If indeed the infant is obliged to learn the processes involved in constructing words, LEXIGENESIS, as well as those involved in producing sentences, it may well seem that he has an even more difficult task ahead of him and will require an even greater genetic baggage to accomplish it — especially so since he can never observe a word being constructed because the processes involved escape conscious control. All the infant can do is observe their results, words in context, and work back from there. Fortunately there is always one aspect of a word in context which points to the way the word has been constructed: its function. A word is like any other instrument humans have invented: the use it is put to is necessarily a consequence of its make-up, the way it is put together. Hence the learning process consists of working back from the observed uses of a word (particularly how it relates to other words) to the means of putting it together, the constructive processes involved in lexigenesis, and ultimately to the mechanism that makes it possible for these processes to be activated whenever the need arises. More concretely, a word like "ultimately" or "mechanism" or "it" or "for" is called to mind to function in the sentence being constructed, but its range of function is limited by the significant elements comprised within its make-up.

The infant must thus work back from the function of words to their nature. As a consequence, learning English as a mother tongue involves acquiring, instituting in the preconscious, the constructive mechanism of, say, prepositions. Just how this is brought about remains a mystery. Guillaume (1984:41) comments on it as follows:

... childish mistakes reveal the efforts of the child to rediscover the constructive processes of tongue from what he hears: his task is one of intuition. The child knows the language when he knows its constructional mechanism and how to use it, and when, in order to use it, he has realized that it is connected with an aphysical mental mechanism, that is, tongue itself. The signs are only needed to exteriorize its interiority.

The situation of the child described here reminds one of a well known passage from Einstein and Infeld (1966:31) depicting the scientist attempting to theorize the reality he is confronted with:

Physical concepts are free creations of the human mind, and are not, however it may seem, uniquely determined by the external world. In our endeavor to understand reality we are somewhat like a man trying to understand the mechanism of a closed watch. He sees the face and the moving hands, even hears its ticking but he has no way of opening the case. If he is ingenious he may form some picture of a mechanism which could be responsible for all the things he observes but he may never be quite sure his picture is the only one which could explain his observations.

The parallel between these two passages suggests that learning one's mother tongue amounts to "theorizing" usage in the sense of instituting

in the preconscious the mental mechanisms required to produce what will function the way it is observed to do. Also intriguing here is the hint that both the infant learning his mother tongue and the scientist creating a theory appear to use the same sort of mental process: intuition. Although what intuition really is still remains a mystery,⁴ it is reassuring that there is no need to postulate a specific capacity for language acquisition. In fact it may well be that nothing outside of our ordinary mental activities are involved here if, as Einstein (1954:290) maintains, "the whole of science is nothing more than a refinement of everyday thinking".

The important point here, however, is the relationship between the postulated constructional mechanism and observed uses: This relationship can be summarized as follows: what is built into a word determines how it can relate to other words. That is, the lexical and grammatical meanings that make up the content of the word condition its usage. In the learning process, the child works back from the observable consequence to the condition whereas in the speaking process, which presupposes that the system of the word has been learned, the speaker works forward from the condition to the consequence, from the constructional mechanism of the word to its use in the sentence. From the grammatical point of view, then, morphology (in the sense of the grammatical content of a word) conditions syntax. Thus it turns out after all that the child is not confronted with a double task of learning since, once he has acquired the system of the word, the system of the sentence follows as a consequence.

So far we have seen that the child, far from being restricted to "observing" sentences, which, as well formed units, are intermittently present in discourse, is constantly confronted with words because they are omnipresent in discourse. Moreover the "data" derived from observing words, which are seldom if ever ill formed, is more reliable than that derived from observing sentences. Furthermore, in learning the system of the word, the mental mechanism for producing the words of his language, the child acquires the necessary linguistic condition for producing sentences. In short, it seems apparent that it would be both more accessible and more economical to acquire one's mother tongue by learning the system of the word.

SENTENCE-BASED THEORY vs. WORD-BASED THEORY

Since these conclusions are at odds with much theoretical work being done in linguistics today, it is important to discern the source of the difference. Contemporary theories, and Generative Grammar is still perhaps the best known of them, are almost all theories of syntax and as such are concerned mainly with the sentence and its constituents but tend to neglect the word and its constituents. That is, they attempt to analyze the syntactic relations between words without first attempting to analyze the words between which these relations are established. This amounts to neglecting an important part of language, how words are constructed, so important, in fact, that without it one cannot explain how sentences are constructed. That is, the conclusions reached above have as a corollary that a theory of the word is a necessary prerequisite for a theory of the sentence. It seems then that theories of syntax have

little chance of success unless they bring into consideration the very condition required to attain their goal, namely an analysis of the word.

Can we push the enquiry one step further and see why many approaches to language have omitted such a crucial matter? Perhaps the obvious reason is that in English the processes of word construction are not, in most cases, directly manifested through the physical form of the word or through its place in the sentence. Often, the only evidence of the constructional mechanism is the different senses the word can express in discourse. (The invariable quantifier *any* is a good example of this. See Hirtle 1988.) But in order to work with evidence of this type one would need a method for analyzing meaning and such a method is by no means easy to come by. This, then, is the crucial point: because any serious attempt at analyzing words necessarily involves analyzing the meanings they express, few theoreticians have ever confronted the issue squarely. And yet we know that avoiding some aspect of reality, no matter how difficult it is to accommodate, does not make it any less real. This, in my opinion, is the Achilles' heel of such theories of syntax: the failure to analyze words on the basis of the formal meanings they express.

To my knowledge Guillaume is the only theoretician to propose a method for analyzing the grammatical meaning of words, and it is no coincidence that his theory, the Psychomechanics of Language, is the only one based on a theory of the word as such. It is this which permits him to postulate that the only genetic endowment required for an infant to learn its mother tongue is that presupposed by any other human ability, namely the capacity for human thought (cf. Guillaume 1984:).⁵

CONCLUSION

Any theory purports to be a conceptual framework — an assumption about the nature of human language — which will permit a greater and greater understanding of how language is constituted and how it works. Only then can it explain its object more and more adequately. But understanding is based on observation, which must tend to be as extensive and as detailed as possible. Any approach which, wittingly or unwittingly, does not attempt to extend observation to the whole of language will result in a conceptual framework which is not commensurate with its object.⁶ Failing to take into account the word, failing to make it a primary concern in analysis, inevitably leads to an inadequate view of language and even to an inventing of universals to take its place.

NOTES

¹ To offer a solution to this problem, one tenant of the innate universal grammar hypothesis has even proposed, in all seriousness apparently, that each of the rules of universal grammar is acquired through genetic mutation.

² No attempt will be made here to evaluate the claims of those who call into question this characterization of spoken discourse. My concern is rather to focus on the status of words in discourse.

³ Even here the word *fun* in itself is well constructed, but at the moment of establishing its syntactic relations with other words is found to have been provided with a grammatical form which is inappropriate.

⁴ See Guillaume (1984:20) for comments on the relation between intuition and language structure.

⁵ Although the point cannot be developed here due to limitations of space, one example of how the foundational mechanism of human thought is reflected in language can be seen in Hirtle 1988.

⁶ For a development of this, see Hirtle 1985.

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NAMING PRACTICES IN CHINA: A MOMENT OF CHANGE

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Origin of study

With detectives' delight, George L. Trager and Henry Lee Smith would mention to their students early clues of a possible shift which their sensitive ears would catch in the language they heard around them. Certainly, language use is, like Thoreau's time, the stream in which we go a-fishing and, as in fact, every linguistic moment is a moment of change, our title is unnecessary.

But sometimes a listener is arrested by a detail--perhaps a word, a phrase, a sound--and wonders if there lies a clue, a thread to follow to comprehending a linguistic and maybe a societal shift. In 1989 in the Middle Kingdom, we noticed small intended and unintended word shifts and began this pilot study.

In the years leading to June 1989, China experienced the accumulative effects of a decade of accelerating new commercial, "open door" practices. Inflation was rampant, and as long-standing roles and relationships were being altered, some social sectors were benefiting, others were not. Daily use of language was also altering. Then, in Beijing, a sudden change became apparent. There was the Tiananmen incident. Subsequently, the Chinese media showed reactions in naming. Whereas, perhaps unintentionally, old pre-revolutionary words and phrases had been slipped back into use, now, intentional changes were evident. For example, Chinese viewers of television noted praise of workers in words not heard for over a decade. Also, later heard was a prominent term of address, "**comrade**," that had fallen into disuse. We decided then to trace directions of some terms. But first we needed to get some grasp on the present moment.

The study of naming and addressing norms, as one feature of social communication, has been much discussed in linguistic studies as an access to examining the relationship between language use and society. A considerable amount has been written on this topic. Results have led to evidences of addressing styles that reflected societies undergoing changes. Modern China provides a special opportunity for such a study.