

AN INVESTIGATION AS TO THE UNIVERSAL
INFLUENCE OF EARLY SOCIALIZATION
ON THE ONTOGENESIS OF GRAMMAR

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ABSTRACT

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By

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This thesis examines the idea that the structure of society may universally influence to some extent the form or shape of the child's earliest sentences. Specifically, evidence is presented from recent work in several disciplines (including a series of observation-experiment sessions with the author's son) in developing the concept of a communication format which, it is claimed, underlies the typical exchange of information between adults and children during the holophrastic phase of child language acquisition.

That communication format, which roughly speaking consists of an attention-getting element and a second element resembling an instruction, serves two functions. On a psychological level it may actually assist the child in learning to use two-word sentences by providing him with several months of experience working within a two-place communication unit. At another level, as a formal device, the format provides a partial framework for further empirical research into adult-child interaction, verbal and

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nonverbal, during the holophrastic and later phases.

In the field of linguistics, the development of the theory of transformational grammar has encouraged extensive research in the area of language universals. The tendency among researchers has been to almost automatically regard possible universal phenomena in language as being innate, a consequence of universal human biological and/or cognitive development. The approach employed in this work is to first consider universals of human experience to see what socially-based strategies and skills every child must have at his command prior to producing two-word sentences. Only then, after such considerations, is it reasonable to resort to innateness as an explanation for aspects common to the way in which all children acquire their native language. The overall effect is to narrow and give increased clarity to the notion of innateness by attempting to demonstrate that certain phenomena which are now generally categorized as innate language universals should, instead, be treated as universals of human social experience.

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Dedicated to my son, Jeromy,
who brought this whole thing to my attention,
and to
his grandmothers:
one
taught me language
the other
taught me what language is about.

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1.0 Introduction

This thesis is an investigation into the emergence of form in child language acquisition. A model is developed which depends on both language use and innateness. The basic argument, by no means a new one, is that one can not explain the ontogenesis of grammar (or syntax) without taking into account the effects of pragmatics, the character of interpersonal communication and the question of what is perceptually salient to the child (in addition to cognitive and/or linguistic universals). In other words, there may be a set of universal social experiences, prerequisite to learning language, that contribute in some way to the striking similarity in the way in which children in all languages acquire initial command of the notion of syntactic relationship in language.

These social experiences are the product of the interaction of the child and his social environment during an early phase of socialization (commencing at about the time the child starts moving about freely, crawling or walking). One reason they may have such pervasive and long-lasting impact is that the child is at the same time beginning to use and understand language. The interaction of language and social milieu is then of extreme importance in the corresponding period of language development, the holophrastic phase (defined here as the phase when the child uses only

one-word utterances, prior to the use of syntax in the two-word phase, i.e., beginning at about the ninth month and continuing past the middle of the second year). The child's primitive language does not yet shield him from reality by means of its categories and social conventions and is almost totally dependent upon the structure inherent in the social situation. The child seems to act phenomenologically; he is moved by the immediate situation without the mediating and connotative mechanisms of symbolic language. His use of language and his awareness of what it is develop during this period of rapid cognitive, physical and social growth.

The key considerations here are: (1) the primitive functions or intentions in adult-child interactions, verbal and nonverbal, (2) the basic format employed in exchanging information in such interactions, (3) the question of what is socially meaningful to the child during the holophrastic phase, and (4) what the nature of those elements imply as to later phases of language acquisition and second language learning. The initial motivation for these considerations (and the source of some supportive evidence) came from a series of relatively systematic experiment-observation sessions with my son, Jeromy, when he was between the ages of thirteen and sixteen months (see the appendix for details).

What tends to make this work less speculative than much previous work on the same subject is the body of research that has recently accumulated in various disciplines

dealing with the earliest phases of personality and language development. For example, one proposal basic to this work is the integration of work by Lois Bloom(1973), Robin Lakoff(1972) and M.A.K. Halliday(1972). The logical consequences of meshing the fundamental assumptions underlying Lakoff's¹ explorations of language in context with the implications of Bloom and Halliday's treatments of the holophrastic phase provide much of the rationale for examining the nature of what might be termed: prelinguistic competence (the implicit knowledge of the structure of the world and the functions of language that the child possesses before he uses linguistic syntax in his own speech, i.e., before the two-word phase).

Research in developmental psycholinguistics has focused more and more on the holophrastic phase in an attempt to trace the beginnings of grammar (Smith 1970, Bloom 1973, Brown 1973). The holophrastic phase normally begins at about nine months with the child's first use of single-word utterances. At first the child often seems to create words or expressions (of one word) that adults may not recognize as being used systematically (Halliday 1973), but soon after the beginning of the second year he usually starts using words that sound like something in the parent language. The holophrastic phase usually ends sometime between the middle of the second year and the beginning of the third year with the appearance of grammatical devices.

Theories as to the onset of grammar (syntax) in the current published literature tend in two directions: those that see the appearance of grammar as a consequence of prior development of certain cognitive processes (e.g., Bloom 1973, Bever 1970), and those that view it as a peculiarly linguistic development, cued by biological-maturational factors, to some degree independent of cognitive development (Lenneberg 1967, McNeill 1970). Those positions are not mutually exclusive, particularly in the common notion that the appearance of grammar is essentially an internal affair; the environment makes no significant contribution to the form of the initial linguistic structures. The assumption is that the role of the language spoken around the infant is to somehow 'set in motion' the internal apparatus that activates the latent structure, innate to humans. Since children from every language seem to go through the same basic phases in acquiring language, up to the point where language-specific properties begin to appear, does it then follow that the organizing principles, such as the sentence, are strictly linguistic universals (McNeill 1970)? There seems to be good reason to question that assumption:

There is an important distinction between innate propensity or capacity to acquire language and the idea that such innate capacity takes the form of linguistic notions of either form or substance. There is simply no evidence that children have knowledge of linguistic structure before they use structure in their speech.
(Bloom 1973, p. 130)

Although children may not have prior knowledge of linguistic structure, as Bloom claims, it will be argued here

that linguistic structure in the child's early speech is at least in part a consequence of the child's knowledge of the structure (or form) implicit in his own prelinguistic communicating.

We will begin by examining a set of putative experiential universals, four tightly interrelated features of the social environment of the holophrastic child:

- A. the status of the child relative to the rest of society (section 3.0)
- B. the form and function of the rules of society as presented to and internalized by the child (section 4.0)
- C. the nature of the adult speech and interaction conventions directed at the child, both in terms of function and overt linguistic and nonlinguistic manifestation (sections 5.0 and 6.0)
- D. the nature of the communication format (later defined as the Instruction Format) underlying typical adult-child communication during the holophrastic period (sections 6.0 and 8.0)

The effect of focusing on experiential universals is not to argue toward a traditional empiricist-environmentalist position. In fact, this approach makes the emergence of grammar even more strikingly internal by attempting to show what material the child has at his disposal and utilizes before those faculties which we must now term innate go into operation.

A typical consequence of regarding universals as either cognitive, linguistic or experiential (i.e., by assigning language universals to only one of those categories) is that there is an almost inevitable distortion as to the nature of language:

Where psychologists like Vygotsky and Luria interpret the 'forms of thought' as internalizing the forms of communal problems and procedures, Chomsky and Lenneberg reverse the relationship and treat forms of public speech and mathematics as externalizing universal, pre-existing forms of 'inner' mental activity. (Toulman 1970, p. 23)

Language is, in one sense, the mental and social cohesive, structure-forming element that defines societal man, and at the same time it is the manifestation of both mind and society. A characterization of language, and particularly language development, independent of mental and social context is likely to be as sterile, in its own way, as a classical behaviorist approach.

While experiential universals are by definition independent of cultural setting, it is precisely the extension of those elements, as they develop through later experience in society, that constitutes the ubiquitous influence of language and language variation on the life of man. In the world of the holophrastic child, as several behavioral systems begin evolving simultaneously, instinct, cognition and environment are at first inseparable components of what one might call: the holophrastic experience. The child appears to internalize hundreds of rules of social

behavior based on the interaction of those three components before he begins using that peculiar, extraordinary set of rules called: grammar or linguistic syntax. Is it unreasonable to suspect that the first forms of syntax (two-word utterances), the first form into which content is inserted, might be to some degree the consequence of that interaction?

One implication of this thesis is that the emergence of syntax is a linguistic universal only in the sense that it represents the biologically (or innately) determined integration of (at least):

1. a prerequisite level of cognitive development
2. a pre-existing form (a communication format)

3. the child's awareness of the functions of language to create a qualitatively different whole, greater than its parts: the linguistic form system. However, the transition from the holophrastic to the two-word phase may not be the 'quantum jump' that it at first appears. This impression may derive in part from the fact that the form system gradually becomes more autonomous and begins exerting obvious influence on other behaviorial systems. This situation makes the study of early language acquisition immensely complicated and clearly indicates the necessity of investigating all aspects of the child and his environment before, during and after the overt appearance of language usage and linguistic syntax.

2.0 Some key concepts and questions concerning early child language acquisition

In this section ten points are discussed that will have some bearing on the development of the argument. Although most comprehensive studies of child language development in any way concerned with the acquisition of grammar begin at the point where the child is actually using syntax (the two-word phase), any approach, in itself, has definite implications and entails certain assumptions as to the nature of the period that preceded the onset of grammar. For that reason several conceptualizations of the child as language learner will be briefly characterized to show what each implies as to the nature of the prelinguistic phase.

2.1 Diaries, word lists, anecdotes and phonology

Prior to the middle of this century, studies of child language consisted mainly of informal observations, diaries and collections of anecdotes (usually by parents interested in language professionally) and studies of the acquisition of the sound system. The longitudinal studies by such people as Leopold (1939-1949) consisted of very detailed observation and recording of utterances so that the data, in terms of chronology, were reasonably well documented. The technique was basically to just describe what happened and when. In phonology (most notably, Roman Jakobson 1968) theories were developed as to the nature of the underlying mechanisms of the sound system, but the same depth of analysis was not carried over into the study of syntax.

2.2 One reason for the lack of concern with abstract linguistic structure was the influence of American behaviorism, which had enormous impact on every discipline, but was especially influential in the area of child language study. The total emphasis was on the learning situation (Skinner 1952). The apparent connections between the word as stimulus, the child's overt imitative behavior and the battery of reinforcement techniques used by parents were too obvious to miss. Psychologists and philosophers consistently pointed to this connection, more apparent than real, as the basic mechanism during the holophrastic phase. The idea that a language or even its semantic system could be built up from such stimulus-response pairs underlies the whole attempt in twentieth century philosophy to establish an empirical semantics (Quine 1960). Even if classical learning theory could have in some way explained early acquisition of terms, such a theory was still utterly incapable of accounting for the creative and generative aspects of language evident during the two-word phase (Chomsky 1959). In fact, according to Bloom (1973), by the time the child is actually using denotation ('naming' in the adult sense) he is also using syntax or grammar.

2.3 The logical extension of compiling word lists is exemplified in the work of Braine (1963) on contextual generalization. By developing a distributional analysis of children's speech during the two-word phase, he theorized

that the child learns, essentially, two sets of words: functors (termed: pivots) and objects (termed: members of the 'open' class), and also a set of co-occurrence restrictions. The two-word phase does have a certain 'pivot-open' look about it (Brown 1973) in that there are many such pairs of relator-plus-object. However, this type of analysis takes into consideration only the child's production and not his underlying knowledge of the structure of the language. The pivot-open concept was also shown by Bloom(1971) both to be too powerful a device for producing the range of utterances and at the same time to fail in accounting for several obvious exceptions.

2.4 The work of developmental psycholinguists trained in transformational grammar, as developed by Noam Chomsky, represented a radical departure from the behaviorist position. The structure underlying the child's utterances became the goal of research. To account for the utterances of a particular child, grammars were constructed analogous to those developed for adult speakers (Brown and Bellugi 1964, Menyuk 1969, Bloom 1970, etc.). Following Chomsky (1965), the child was conceptualized as a precocious little linguist who begins with the innate knowledge of the universals of language in general and then goes on to construct and test various hypotheses until he arrives at the grammar of the language he is acquiring. This approach placed considerable emphasis on the search for what are the universals of language structure, the implication being that

what is common to all languages must somehow be innately specified in the mind of the child before he begins attending to language. As a consequence, it has been generally assumed that the input to the child could not possibly have any effect on the basic, universal forms of language because the input is so varied.

2.5 Partially in response to the transformationally-based theories and growing out of the empiricist tradition are approaches that utilize the concept of the strategy to characterize the knowledge of grammar possessed by the child acquiring language (e.g., Ervin-Tripp 1973). A strategy is a principle by which language, in this instance, is processed; for example: the first N...V...(N) is taken to be the main clause (Bever 1970). Bever took such strategies to be part of the general cognitive-perceptual system, analogous to the strategies used in other behavioral systems. Slobin(1971) discussed the concept of the strategy in a somewhat narrower sense as a set of basically linguistic principles. His work emphasized the order of acquisition of those strategies. The strategy-approach is oriented toward the processing of language and attempts to avoid the need to posit transformations to get from the actual speech or surface structure to the underlying representations.

2.6 One especially salient feature of the overt development of child language is the apparently discontinuous nature of the phases of the acquisition of syntax. The one-word, two-word and so-called telegraphic phases often

are seen to begin very abruptly, suggesting a qualitative change in the child's language system. The problem of explaining those changes has been handled in two ways: as a gradual unfolding of the adult system, or as a series of radical reformulations of the child's linguistic system.

When the unfolding approach was employed, the tendency was to project the adult deep structure, or something closely resembling it, back to the two-word phase (Menyuk 1969, McNeill 1970, Bloom 1970) by allowing considerable supplementation of deep structure material. That had the advantage of coming very close to the adult's intuition as to what the child had in mind, but also the disadvantage of possibly reading in all sorts of things that the child did not intend. In order to justify deep structure trees underlying the two-word utterances of children, researchers (e.g., Bloom 1970) attempted to solve such problems by allowing both extensive contextual information and the judgments of adult observers to determine the meaning of an utterance. However, it was evident that this was still a production-oriented grammar with an inescapable adult bias. This was especially the case when one drew out the logical implication of this technique: it should be possible, in principle, to construct the same sort of trees for the structure underlying the one-word utterance.

The reformulating approach proceeds on the assumption that the holophrastic, two-word and telegraphic phases are qualitatively different to the extent that they cannot be

characterized by using the same formalism for all three. The transitions between phases represent the emergence of new systems. For instance, one might treat the holophrastic phase in terms of a functional grammar (Halliday 1972, see section 7.0), the two-word phase in terms of a case grammar (following Brown 1973, see section 2.7) and then employ a transformationally based grammar on the later phases.

2.7 The application of Fillmore's case theory (1965) to the two-word phase (Schlesinger 1971, Brown 1973) involves positing underlying semantic relations such as agent-object for a two-word utterance and then writing realization rules. This seems quite promising, but can one also then imply that those semantic relationships were present before the child expressed them in speech, during the one-word or holophrastic phase?

At present there seem to be two theories as to what the child is actually expressing in the one-word utterance. According to McNeill (1970, based on some unpublished work of Greenfield), the semantic relations (cases) that are needed for the two-word phase are all present in the one-word phase, and, in fact, appear in a fixed order. However, until the data are available, it will not be possible to substantiate such a claim. The other theory, and the one that seems most plausible at the moment, is the one put forth, in somewhat different forms, by both Bloom (1973) and Halliday (1973). They have arrived at the conclusion

that in the holophrastic phase the possibility of case relationships existing is rather slim, because the word is inseparable from context, and for such a semantic relationship to be functional it would have to apply across contexts.

2.8 How much the child understands during the one-word phase and how he understands are key issues in explaining the emergence of form. Bloom(1973) argues that the child's understanding of linguistic structure does not exceed his production. In other words, what appears to be comprehension of complex syntactic structure during the holophrastic phase is actually the understanding of one word plus context; syntax has no effect at all (also see the Appendix on comprehension). The conclusion that Bloom draws is that: Children learn syntax as a mapping or coding of their underlying cognitive representations (Bloom 1973,.p. 20). Although a child may demonstrate an understanding of a complex situation by appropriate behavior in response to a command, etc., he will not be capable of using two-word utterances until he can grasp the notion that semantic or cognitive relations exist between elements of the situation and that those relations can be expressed in language.

3.0 Society: perceived social status and homologous behaviorial systems

3.1 From status awareness to communicative competence

In acquiring a first language, the child is in a unique position as opposed to a second-language learner: he is treated like a child but does not care (at least at first) because he does not know he is being treated like a child. As anyone who has ever studied a foreign language as an adult can well attest, there is a tremendous advantage in approaching a language-learning situation free of all inhibitions. The child is in just that position. The child is also at first protected from an awareness of his relative status in the community, but soon language will bring that to his attention.

The child, particularly before he can respond verbally to parental authority and answer questions, has relatively little status within his own society-in-miniature. In many societies this is considerably more pronounced than it is in modern industrialized society:

In Africa, the Ashanti entertain similiar notions as to the status of infants. The child is not ceremonially named and presented until eight days have passed. Should it die before that time its little corpse is casually thrown on the garbage heap, for it is believed to have been but the husk of a ghost child whose mother in the spirit world had pawned it off on a living mother for a short period while she went off on some jaunt or other. On returning from her undertaking she recalled her little spirit baby (Hoebel 1958, p. 376).

Although that is an extreme example, the very nature of the child in terms of the degree of humanness or level of social

interaction has a great impact on how adults and older siblings perceive and treat the young child. Until he is old enough to consciously act upon his environment himself, without having his needs always mitigated through another human being, his status is almost that of property.

The language defines the status of the child through the implicit or explicit use of the status (or honorific) codes. This is illustrated to some extent by the fact that adults tend to use a special code when addressing children (see section 5.0) such as babytalk or a simplified version of adult speech. There does not appear to be any evidence that holophrastic children can actually produce status distinctions in the languages that have such forms (e.g., Japanese, Korean, Marathi) but the mannerisms of subordination and obedience appear very early in every culture and are generally very important in the eyes of the adult community.

Because of the child's relative status and long period of dependency, he has no choice, initially, but to tacitly (more or less) accept his role in this imposed 'mutual agreement' as to how things will be run. It has often been noted (de Laguna 1927, Church 1961, McNeill 1968) that children begin using 'no' as an assertion of self long before they actually use it as true negation. Jeromy accepted instructions without comment or great hesitation until he was about one year, three months old (1:3). At that point he started

to accompany motor responses to instructions with the word 'no' and often a mischievous laugh . . . but continued to comply. Within a month he was occasionally beginning to reject instructions either by ignoring them or running away, laughing. Soon after that, 'no' appeared in situations where he seemed to be verbalizing a prohibition, as if he was directing himself. 'No', indicating outright refusal, did not follow until about 1:8 years.

Some awareness of the structure of the social system as it immediately affects the child is evident quite early in the first recognition of 'who does what to me and what I am allowed to do.' There is, apparently, some experimental evidence that 'as early as the age of eighteen months the characteristics of the child's speech activity depend on the type of interaction and who the child is talking to' (Popova 1968, as reported in Prucha 1972). Although Prucha does not go into sufficient detail as to the precise nature of those characteristics, somewhat similar observations have been made by Berko-Gleason (1973). She noted that children under two years of age do switch codes or markedly change their style of speech, depending on the status of the other party. Jeromy, at 1:8 years, discovered the tactic of going into a high-pitched jabbering when he wanted to get something that another child had. This seemed very successful with other children, even those considerably older (they often asked what he was saying) but

was never really practiced on his parents because he apparently realized that it would not work.

The notion of communicative competence, as developed by sociologists and sociolinguists (e.g., Hymes 1967, Bernstein 1972, Ervin-Tripp 1973), is quite useful here. For the adult, communicative competence is the outcome of the potential output of the adult's linguistic system (or competence) being filtered through the adult's assessment of the social context and the attendant rules of usage involved. Children seem to begin to acquire the ability to switch codes at about the same time that they begin using syntax (the two-word phase). Prior to that time, when language use is tied to context, the situation dictates the word or at least an extremely limited set of options or holophrastic responses, depending on which aspect of the situation the child is attending to. Communicative competence arises when an opposition between language and context is possible; when there are choices available to the child as to which of two or more expressions of like meaning (predications on the same aspect of some situation) is appropriate for the person he is addressing. The filter-effect of the social rules that the child has previously learned not only help him decide as to the correct expression, but may also provide something of a precedent for the format of the information exchange (see section 6.2).

3.2 Language as one of several homologous, rule-governed behavioral systems during the holophrastic phase

. . . every purposeful activity of man is structured and certain basic characteristics are common to every such activity, so that it should be possible to develop a theory and a technique which would pass without jar from the study of the structure of one kind of activity of man to that of any other (Pike 1964, p. 54).

The idea that language can be treated as one behavioral system among many, or as a set of shared cognitive strategies (Bever 1970) that are also used in processing information other than language, is particularly relevant when discussing the world and mentality of the holophrastic child:

Our basic tenet is that verbal and non-verbal behavior are in themselves but different facets of a broader process. This process is such that it takes on many diverse forms, yet always possesses one basic characteristic, namely, directionality . . . so that a course leading to an end result is maintained. . . in a gradual course of development during which all available mechanisms, both verbal and non-verbal, are set into operation toward this end (Shugar 1972, p. 243).

That view, apparently a cornerstone of Polish child psychology, has at least one attractive feature: it does not allow language to be treated as a system that develops independently of the other behavioral complexes or strategies that the child needs and is teleologically programmed to develop and utilize. The same idea is expressed in many theories, such as the 'social semiotic' of Leontiev(1970) and Halliday(1974) where language, mind and social experience interact, forming each other in the process.

Consider this definition of grammar by Wittgenstein(1958, p. 283): 'Grammar is the totality of rules according to which a word is normally used in practice.' Although that definition is not particularly enlightening to the linguist attempting to analyze adult language, it especially appropriate when applied to the constraints on communication evident in the child's speech and interaction prior to the time when symbolic language (and syntax) comes into play. Recall the discussion of Bloom's conclusion that the child has no awareness of syntax prior to the two-word phase. What is the nature of the grammar or set of rules involved in producing a one-word utterance? Obviously, one set of meta-rules must come first which involve the child's discovery of what language is used for, under what conditions it can be employed and with whom. The question is: how different, qualitatively, are the rules and strategies internalized prior to the two-word stage from those that later govern the use of syntax?

4.0 Socialization: internalizing the rules

Language is essentially a means for one man to act upon another; every expression has an imperative value; it is an invitation to react; to pay attention, or to recognize (Guillaume 1924, p. 522).

4.1 The nature of the rules

One of the conclusions of this work, discussed in sections 6.0 and 9.0, is that the intuitions of early researchers in child language such as Guillaume and de Laguna regarding the key role of the imperative in language acquisition were, in many ways, correct. Though the sense of imperative that Guillaume seems to have had in mind is particularly relevant in the study of the child and his language, there are two other senses of the concept of the imperative that provide additional insight into the process of early socialization.

'Evolution shows that learning is easy if it is something we need for survival' (Ardrey 1974, p. 1). The child must learn the rules as quickly as possible: what is dangerous, what is permitted and what is not, how to get what he needs from his overseers, etc. The urgency of this conforming to the rules is easy to underestimate. The fact that learning the rules of society is so vital to his survival, physical and social, gives them a special salience to the child. Adults often impress upon the child the critical importance of basic social rules by at least attempting to take on an officialesque air when they are about to 'lay down the law.' The question of what is

salient to the child turns up often, particularly when evaluating the nature of the verbal (and nonverbal) input to the child (see section 5.0).

A second sense in which the rules are imperative in nature is that they constitute a set of dictates that define the limits of self, analogous to formal codes of law: a set of rules and consequences. The socialization experience is one of learning the rules of interacting with people, as reflected in the style of the language used by the rule-givers:

The style is different from the informal or colloquial style that teenagers or old friends use to one another, and serves special functions: it is the language of socialization. While baby-talk is concerned with learning the language, with establishing communication, the language of socialization is filled with social rules (Berko-Gleason 1973, p. 167).

Of course the rules are presented in ways other than through language, but language is the only practical channel available when the child is not paying attention and he is beyond arm's length.

4.2 Social and self-control through language

Language is the primary means of social control. Whether social control is the primary function of language is another question entirely. For the adult, language has many functions, social control being one, but because the adult has learned the rules of society, it is no longer necessary that each application be spelled out. If by social control one means that the utterance affects the

other's behavior, as Guillaume may have been claiming, then most verbal interaction is control-oriented. It is difficult, however, to construe language used for reflection as controlling anyone (other than the self) directly in the case of the adult.

Piaget(1934) and Vygotsky(1961) in their discussions of egocentric and socialized speech both discussed the question of when and to what extent language is used by society to control the child and by the child to control and direct himself. From the work of both it is clear that the role of language as interface with society is especially crucial during early development. Vygotsky and his student, Luria(1959), developed the notion of 'inner speech' as a regulator of behavior:

Luria adopted the notion (from Vygotsky) of progression from external to internal control. Early in development only the speech of others, particularly adults, can direct a child's behavior; somewhat later, the child's own overt speech becomes a regulator of his behavior; and still later, the child's inner speech assumes this regulatory role (Dale 1972, p. 223).

Luria's second stage is often marked by the appearance of self-imperatives. These are especially apt to come out when the child is faced with unusual difficulty or a recognized prohibition (Kohlberg and Hjertholem 1968). One of Jeromy's first recognizable holophrastic utterances was 'ha' (hot). He would say it whenever he came near the stove or a coffee cup, as if directing himself away from it. Although at first it appeared to be for his parents'

benefit only, it was soon observed that he said the same thing (and made an accompanying gesture of avoidance) when it was clear that he did not know that he was being watched, age 1:3 years.

Both the teaching language of adults (see section 5.0) and the holophrastic speech of children (Halliday 1973, cited in section 7.0) are highly imperative or pragmatic in function: instructions and demands. It is probably to a large extent the exigency of social survival.

4.3 Acts of control

When the child has reached the age where he can move about on his own, or at least manipulate things he should not touch, a new relationship with new speech functions rapidly develops between the adult and the child:

Commander and Commandee²

The conditions and presuppositions involved in this type of adult-child interaction in the holophrastic phase are worth examining in some detail. For the present, the term 'command' will be used to designate the message that is passed partly because this analysis is based on the logic of commands, and also because the concept of the command seems to be a good characterization of the speech act that typifies this relationship. Some presuppositions of such adult-child interaction:

- A. The command is based on the authority of the adult (and the inferior position of the child).

B. The command is based on an assessment of the intention of the child by the adult (i.e., that the child would not do otherwise).

C. The command has the logical structure:

CHILD do X or Y

where X is the act (or non-act) and Y is the consequence. At first the illocutionary force of the command (following Searle 1970, i.e., in this case the effect of the command on the child) is always the same: the child does not realize that he might have a choice. However, the cost of noncompliance soon becomes more complex as the command form is used in situations where compliance is not obligatory, etc.

D. The command is usually action-oriented during the initial phase of the relationship. This is particularly the case when the command is used for instruction purposes. Then the adult believes only that the action requested is within the ability of the child.

E. Since the command is a performative, it is a complete speech act as long as it is acknowledged.

F. A through E are based on the adult-to-child direction. When the child begins commanding (a logical impossibility but a psychological reality) the command relationship becomes the focus of resistance to the process of socialization.

5.0 Input and salience

'The child perceives only personally meaningful objects'(Church 1961, p. 5). The exact influence of the language that the child hears on the course of his grammatical development is difficult to assess. Children exposed to widely divergent environments appear to acquire reasonably equal command of the basic grammar of their native languages.

Many workers in child language question the likelihood of large differences in the average age of achievement of fundamental milestones (e.g., understanding verb-object, understanding relative clauses) or in ranges of variation in different social groups. There are two reasons for their doubt. One is the evidence of a considerable biological substrate for the maturation of language learning abilities in humans, and the other is the evidence that the amount of direct reinforcement of language training seems to have little bearing, at least on grammatical development (Ervin-Tripp 1973, p. 264).

If there are features of the social environment that universally influence the ontogenesis of grammar, it would seem that they must be part of some set of prerequisites for language learning and not subject to language or culture-specific variation.

Studies of the language used by adults when addressing children have systematically noted the morphological and syntactic simplicity of the utterances, the tendency of adults to repeat, expand and perform rough constituent analyses for the child (Cazden 1965 and 1967, Snow 1972, Berko-Gleason 1973, Bloom 1973) and the effects of varying maternal language styles (Olin 1970, Lewis and Freedle

1972). What these studies seem to indicate is that certain styles of adult speech (those providing a rich and varied verbal environment) may make it somewhat easier for the child to acquire vocabulary, but there is no conclusive evidence that any combination of coaching techniques can significantly speed up the acquisition of grammatical structure. However, a child from a deprived verbal environment may be slower in acquiring certain language skills:

Some cultures are characterized by a stereotype of passively ignoring or actively rejecting infant and child language activity, with the effect that the children display conspicuously narrow ranges of comprehension and verbalization when they reach school, as among Virgin Island communities (Friedlander 1968, p. 47).

There are many questions that come to mind when examining Friedlander's statement. It would be particularly interesting to know if the children really do display a narrow range of control over the grammatical structure of their language or whether Friedlander is only referring to their lack of terms that are used in school, to social or cultural pressures that discourage or inhibit the children's verbal production, or to some similar factor. It would be very surprising, indeed, if their comprehension was restricted due to their knowledge of grammar, unless the grammar used in school was sufficiently different from that used at home so as to confuse them.

A second question involving input is

that of what is salient to the child, what he actually perceives or what he attends to. Forgetting for the moment the distinction between what the child hears and what he actually processes, it is still not the case that:

The child hears a virtually unrestricted input of grammatical and ungrammatical sentences; he produces more and more comprehensive rules to account for them. It is thought that, apart from certain limitations in the child's environment, the language he hears is not graded systematically (this disregards the effect, if any, of baby-talk) (Cook 1971, p. 210).

Cook is wrong on several counts. As was noted earlier (Berko-Gleason 1973, cited here in 4.2), a different code is used by adults when dealing with children (the question as to what the child processes, even of speech not directed at him, is discussed below). There is also the issue of the '... unrestricted input of grammatical and ungrammatical sentences.' Labov(1970) has shown that spontaneous speech is by no means as ungrammatical as once thought. The implication of Snow(1972) is that the speech directed at children may be even more grammatical than that addressed to adults (meaning: fewer grammatical errors).

In attempting to characterize the input relevant to the holophrastic child we must take into consideration the child's awareness of the function(s) of language. The only indicators we have as to the child's awareness of what language is for are (1) the functions embedded in adult speech that the child responds to correctly, and (2) the functions evident in the child's own speech.

The adult function that is probably most salient to the holophrastic child is probably that of the instruction (Berko-Gleason 1973) and the action-oriented directive (Luria 1961). During this period of sensory-motor development speech not connected with action certainly has less impact (Piaget 1928). Although it is impossible to know what is going on inside the child's head, the adult-child interaction of this period is clearly centered on the authority of the adult as teacher. Even adult speech to the child that is not explicitly directive, such as giving the child names for objects, still carries the ex-cathedra ring of authority on the nature of a higher-level performative something like:

I,
your superior and the one who has the last
word in all matters concerning you,
tell you (child): 'This is a ball.'

If the child's speech can be taken as a measure of what is important to him, then it is evident which function of speech is most essential: manipulation of other people. In one study of a child during the early two-word phase, Gruber (1967) concluded, on the basis of videotaped sessions, that the child made only demands of the experimenter (demands for action of some kind or recognition of what the child was pointing out). Even naming objects is, for the holophrastic child, an exercise that includes the strong element or function of demanding verification on the part of the adult (Church 1961, p. 47). It is not surprising then that

the speech of holophrastic children seems to '. . . abound with understood imperatives' (Brown, Cazden and Bellugi 1969, p. 391).

Even with the aid of context, adults can still easily misread the intention of the holophrastic or two-word utterance. Jeromy's parents often responded to a one or two-word utterance first as if it were only a statement (often, admittedly, in an effort to avoid doing what he was asking for). If the original intention was in fact to demand something, the utterance was almost always repeated. For example, Jeromy (age 1:8 years) walked into the living room and saw his father holding a glass of water. Using a very declarative-sounding intonation contour he said:

'Daddy drink it.' ('drink it' functioning as
one word)

His father then responded:

'Yes, Daddy is drinking a glass of water.'

That was not what Jeromy had in mind at all; he wanted me to drink it! He then repeated the original utterance but this time with a distinctive imperative intonation and an obvious note of impatience. This adult bias as to the intentions of children's speech has serious implications. It is rather obvious in the above example that Jeromy did not see the imperative/declarative distinction as his parents did. The question of what semantic or functional meaning from the adult system should be assigned to the child's utterance is the wrong question. We should instead inquire

into the scope of the relations or functions in the child's language system.

In one of the few in depth studies of the functions of a child's speech during the holophrastic phase, Halliday (1973, also see section 7.0) has shown how holophrastic utterances begin with functions that are almost entirely pragmatic (those that explicitly demand some object or those that demand a response from the adult) and then become differentiated near the end of the holophrastic phase, expressing intentions that are more obviously not strictly manipulative.

The idea that the child attends to what is of interest to him is closely tied up with the concept of the perceptual filter. Many experiments have demonstrated (intentionally or unintentionally) the effect of cognitive and perceptual filters on the child's processing of speech (Slobin and Welsh 1972, Shipley, Smith and Gleitman 1969). When a child is for some reason, developmental or experimental, unable to process a signal or utterance he tends to just filter it out. That is the most telling evidence against characterizations of the language acquisition process such as Cook, above. Even if the verbal environment surrounding a child were exactly as Cook described it, there is no reason to believe, given the current state of research in perception, that the child is actively monitoring what he is cognitively incapable of understanding. But if that is

the case, then the child is also not attending to any linguistic form (syntax) either during the holophrastic phase. Is it possible that the child begins using syntax (two-word utterances) without any awareness at all of a model or pattern in the language of his parents? We will return to that question in section 8.0.

6.0 Conveying the rules: The Instruction Format

Communication is the ontological locus of language. If we want to understand language we must inquire into the nature of interpersonal communication (Freitag-Loeringhoff 1960, p. 240)

An assumption that has been being developed in the last three sections is that the earliest function of speech during the holophrastic phase is pragmatic. There is a point in the development of a child when he is rather suddenly capable, physically and mentally, of doing things that require constant correction by adults and learning things that require instruction. This corresponds to the period, in developmental terms, when the healthy child learns to crawl or walk, when his new mobility drastically increases his set of options.

As Piaget(1949) has remarked, the first holophrastic utterances can be seen as an expression of actual or possible action patterns . . . these holophrases accompany in the present an action done by the child or interesting to the child; or they express a desire for an action the child wants to perform or to have performed immediately by someone else. It is only a little later that these 'judgments [sic] d'action' get supplemented by 'jugements de constatation.'
(Sinclair-deZwart 1973, p. 22)

Even in children not capable of that type of activity, their ability to manipulate things in their environment increases with their ability to demand things or actions of others.

At about this same time, the language and actions of the adults aimed at the child undergo a corresponding shift in function. They become more explicitly directive and controlling, whereas before they were largely interactional or coaxing. This corresponds roughly to the onset of the holophrastic phase. The messages the child begins sending back, both verbal and nonverbal, are basically demands or people's names (names of persons, particularly 'mama', frequently function as demands). Based on that consideration, the communication model discussed in section 6.1 uses the instruction (a command) as the message, the most typical form of information exchange between the adult and the child. This is not to say that all other functions of speech that are evident during the holophrastic period are necessarily derivative, but only that the instruction/command/imperative function is the one that seems to have an extraordinary salience for both the adult and the child . . . if only for a period of several months.

6.1 A communication model: an instruction

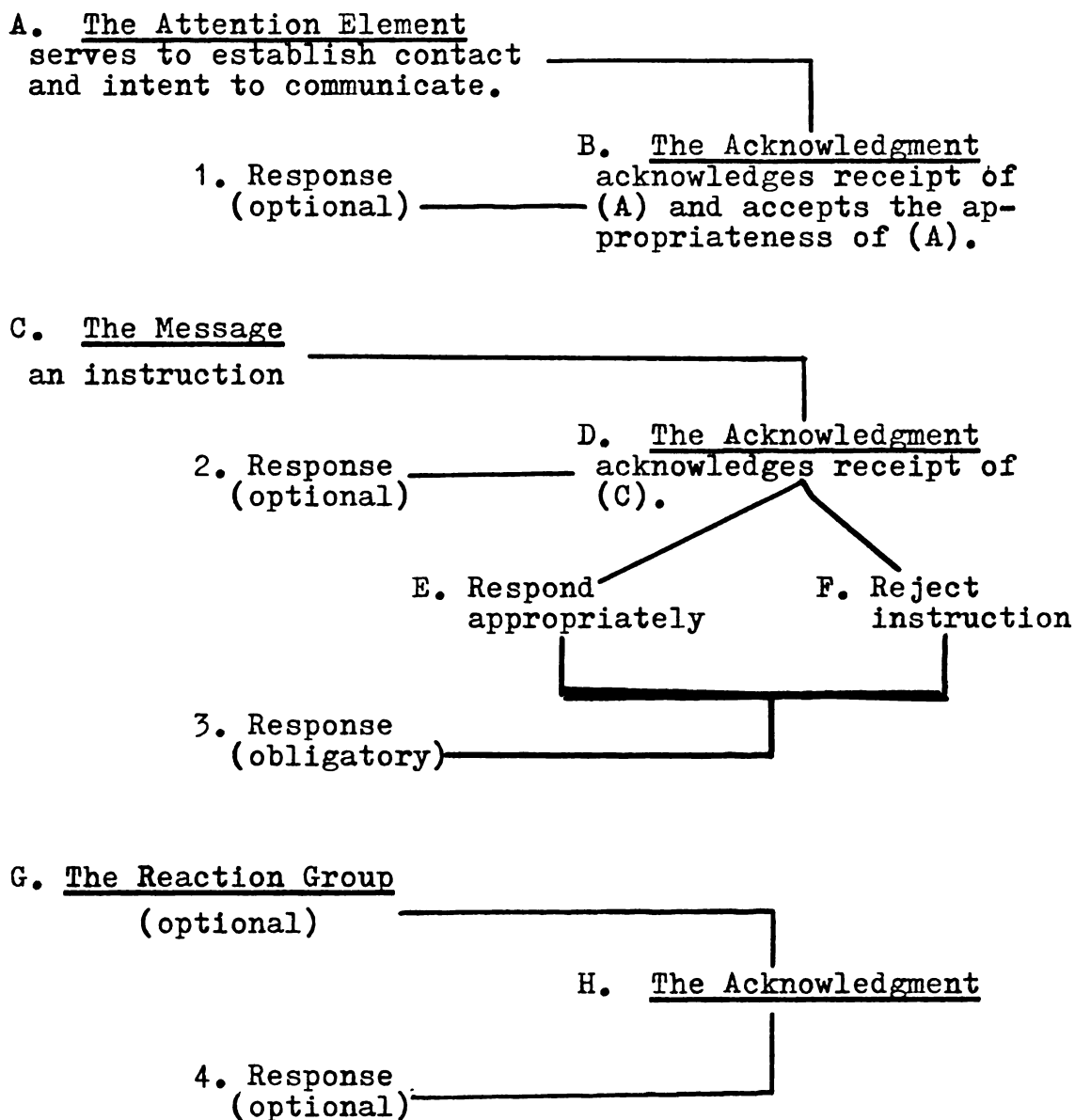


figure one.

The communication model of an instruction was based on the speech act: Command (Searle 1967). In section 4.3 the logical structure of the command was discussed as it applied in the adult-child situation. In section 6.2 the Instruction Format will be presented. That is, essentially, a merger of the communication model of an instruction with the logical structure of the command.

In the communication model (figure one) note that responses E and F are quite restricted, whereas in other speech situations (and nonverbal exchanges) that is not the case. In general, all the child can do in terms of a response at this stage is to carry out a simple direction or give a name or label. If one of those two responses (E or F) is not immediately forthcoming, the interaction is considered unsuccessful. Of particular interest here is the cost assigned by the adult to noncompliance or rejection, as discussed in section 3.1. Once the child and his superiors begin to 'play games' with the illocutionary force of the instruction (by not insisting on perfect execution) the authority of the adult is compromised, tacitly recognizing the emerging autonomy of the child.

1, 2 and 3 are acknowledgments of actions by the initiator of the speech act. Only 3 is obligatory, but in dealing with holophrastic children 1 is essential, even if this only represents eye contact with the child.

The Attention Group (A, B and 1) is optional in the

rather unlikely event that the instruction is carried out without any preliminaries. The message (the instruction) then can be said to carry the attention function. In adult speech-interaction situations the execution of an instruction, without any preliminaries, is not uncommon. However, as noted above, when dealing with children, getting and holding their attention is the greatest single obstacle to research. In fact, every piece of research that involved experimenter-child interaction for the purpose of eliciting a response from the child, has used the 'Get their attention and then tell them what to do' paradigm. That too is not a coincidence; it is the only way one can effectively communicate with children in this developmental period. For instance, Snow(1972) reports that adults often repeat a command at least twice. The first instance probably just serves to get the child's attention.

The Reaction Group (G, H and 4) is optional, but very important for the child. It provides feedback and often serves as the attention function for the next instruction.

6.2 The Instruction Format

Based on the communication model presented in section 6.1, the following Instruction Format is proposed as being a part of the 'ontological locus' of the concept: sentence.

attention		message
component	+	component

Both adults and children utilize this format, but with differing degrees of internal differentiation in the

message component. For the adult, as noted above, this is about the only way to communicate with a child in the holophrastic phase. The attention component is, for the adult, generally the child's name or some other suitable call. The message, as we have seen, is best characterized as some kind of instruction. Both functions, attention and message, are essential to successful communication in all communication systems, but in the case of the child the degree of explicitness required is considerably greater. Both of the components (or functions) may be realized nonverbally; any combination of the two appears to be acceptable, but the basic two-place format seems to be a necessary condition for communication for the child.

A holophrastic child seems to respond to the message holophrastically (as if the message had no internal syntax). He is unaware of the grammatical relations expressed in the instruction, but somehow is able to connect the content words to the situation (see Bloom 1973, and the Appendix for more on comprehension).

During the holophrastic phase children consistently function within a framework quite like the Instruction Format when communicating with adults. They seem to learn very soon that without first confirming the adult's attention, nothing happens. Depending on the receptiveness of the adult community and other psychological factors, children invent numerous strategies and tactics to get attention.³ The

technique of repeating the demand (or instruction) over and over again is an example of the instruction serving both functions. Jeromy, at age 1:7 years, began using the repeating tactic with an added feature:

'Gape, gape, gape, gape . . . ' (done at high speed) at first hearing sound as if he was simply repeating his word for grape over and over to make sure that his father understood what he was saying, but there was more involved than that. Once he secured my attention, he stopped, paused a moment, lowered his voice and calmly said: 'Gape.' (an absolutely unmistakable instruction: Give me a grape).

The frequent occurrence of people's names in holophrastic and two-word speech is understandable, considering the range of the child's experience at that point. Slobin (1971) noted that in languages that have a vocative case, it is usually the first case to appear in consistent usage. Names (of people) function as vocative (attention function) and carrier of desires. For instance, it is often reported that 'mama' often has the added meaning of: something is going on here that I do not like! Guillaume(1927) characterized the language of the holophrastic and early two-word phases as essentially people's names and wants. Bloom(1973) said about the same thing when she concluded that the only elements of the holophrastic vocabulary that the child retains as is in the two-word phase are people's names and relations (e.g., more, up, down, allgone, etc.).

The Instruction Format seeks to emphasize three of the most striking aspects of early holophrastic language acquisition: first, the communication function of the attention component as it appears in various forms in adult and child speech and gestures; second, the fact that such a great proportion of the child's (and adult's) utterances have an imperative function, and third, that the utterances of both children and adults are closely tied to the child's actions (which the adults are compelled to spend a great deal of time and energy trying to direct).

7.0 Bloom and Halliday: the nature of the holophrastic utterance and its functions

What is important is the impressive evidence of the child's awareness of relationships among aspects of the situation and his obvious inability to code those relationships linguistically (Bloom 1973, p. 54).

The major point made in Bloom (1973) is that the child's cognitive development during the holophrastic phase enables him to code only one aspect of a situation at a time. Some of Bloom's best evidence comes from the period just prior to the onset of the two-word phase. Her daughter showed clear signs that she had in mind more than one aspect of some situation by frequently listing, in distinct one-word utterances, several aspects, one at a time. The implication is that the child understands in something of the same way. He treats the adult utterance as a series of one-word utterances coupled with the present context. The argument is that as the child's cognitive development allows, he will

begin attending to the syntax of the language of his parents.

Halliday(1972) takes a different approach to the holophrastic phase. His contribution is that he does a functional analysis of the development of the holophrastic vocabulary of his son, showing in some detail the nature of the situations that Bloom only treats in the abstract:

There is little systematic information about the first glossogenic phase, roughly 6 - 18 months, when the child begins to construct a language for himself. This phase is usually regarded as pre-linguistic, because the child's expressions are typically not imitations of the adult language. On functional-semantic criteria, however, there is a linguistic system: the child's utterances are systematic and functional. There are no words or structures . . . but there are content/expression pairs in which the expressions are discrete and the contents relate to generalized social functions (as do the contents of the adult language)
(Halliday 1972, p. 40).

The functional-semantic system of Halliday's son at age nine months was composed of at least twelve distinct utterances, classified as follows:

- A. Pragmatic - Instrumental (i.e., 'Give me that.')
 - Regulatory (i.e., 'Do that right now.')
- B. Mathetic - Interactional (i.e., 'Nice to see you.')
 - Personal (i.e., 'Here I come.')

It was evident from Halliday's phonetic transcriptions that the actual utterances bore little or no relation to English (at nine months). At sixteen months the system had expanded to approximately fifty functions, derived from the basic categories of pragmatic and mathetic. However, at that point at least two-thirds of those utterances were easily

recognizable as based on English. This type of analysis brings out two interesting points. First, the functions of the language the child is producing are clearly spelled out. The pragmatic dimension is dominant during the initial phase, but the mathetic dimension gradually expands to include more and more functions until, quantitatively, it is almost twice as large as the pragmatic by the onset of the two-word phase (though the pragmatic dimension continues to be the most frequently employed by far). Second, the members of the pragmatic-mathetic distinction, when viewed together, closely resemble the primes of the Instruction Format: attention + instruction. These two meta-functions, pragmatic and mathetic, evidenced in the speech of the holophrastic child, are symptomatic of the role of language in the holophrastic experience: establishing meaningful channels of communication with other human beings and then using those channels to get what you need.

8.0 The message in the medium

As we said in the Introduction (1.0), the linguistic universal that comes into play with the onset of grammar can be thought of as an integrating of certain prelinguistic phenomena. This idea is analogous to the concept of the functional organ or system as developed by several Soviet physiologists:

. . . a functional organ is formed during the lifetime as a result of specific activities of various physiological mechanisms united in a unified functional system. [It is] . . . a broad functional unity of differently localised structures and processes on the basis of an ultimate (and lasting) effect. These considerations of A.N. Leontiev go back to the well-known thought of Vygotsky (1960, p. 393) that 'the human brain possesses a new principle as compared with the animal localising principle due to which it became the brain of man, the organ of human mentality' (Leontiev 1970, p. 126).

It is not at all improbable that such a 'new principle' may underlie some of the mysteries of child language acquisition, but at this point let us just concentrate on whether or not the analogy is appropriate.

We do not face a problem of describing 'what' is innate in human language, either by reference to related dumb species or to the linguistic role of non-linguistic aspects of human cognition. Rather, our problem is to specify 'how' the child's desire to communicate recruits and organizes human capacities into the species of behaviour that we know as language (Bever 1970, p. 205).

Bever is also talking about a type of 'integrating' but his bias toward cognitive processes makes his 'recruiting' essentially an internal one, as opposed to the environmental and mental approach (interactional) that is being pursued here.

Figure two illustrates some relevant aspects of the holophrastic child's communication network. A, B, D and E refer to the child and the organization of his language system. B₁, D₁, D₂ and E₁ refer to the adult and the adult speech aimed at the holophrastic child, and are included to help make the role of the Instruction Format more precise.

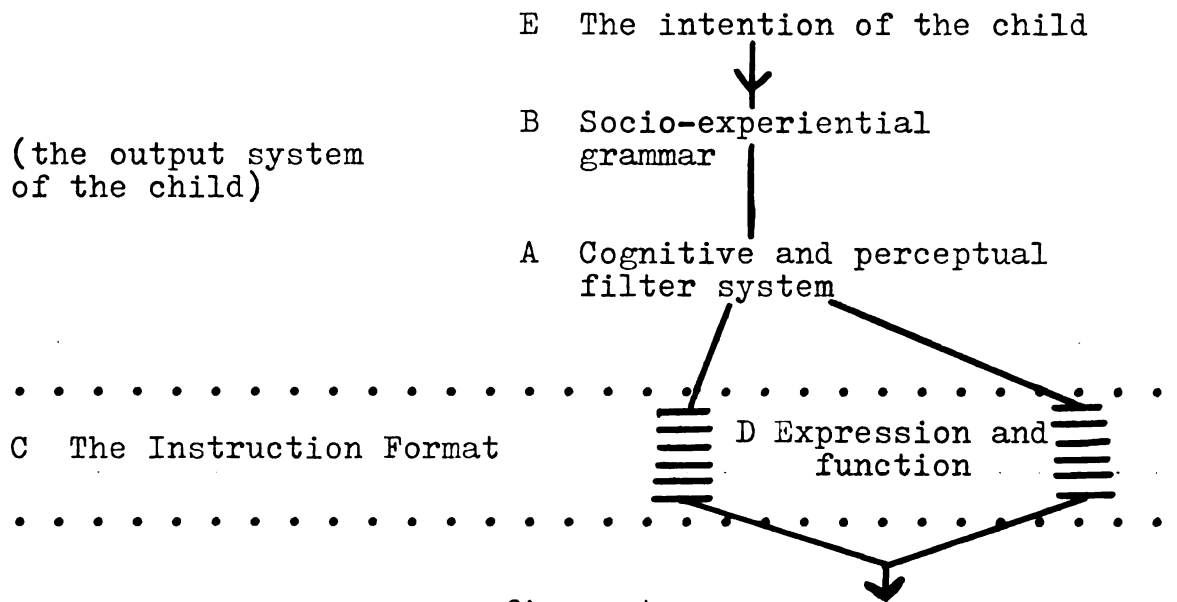
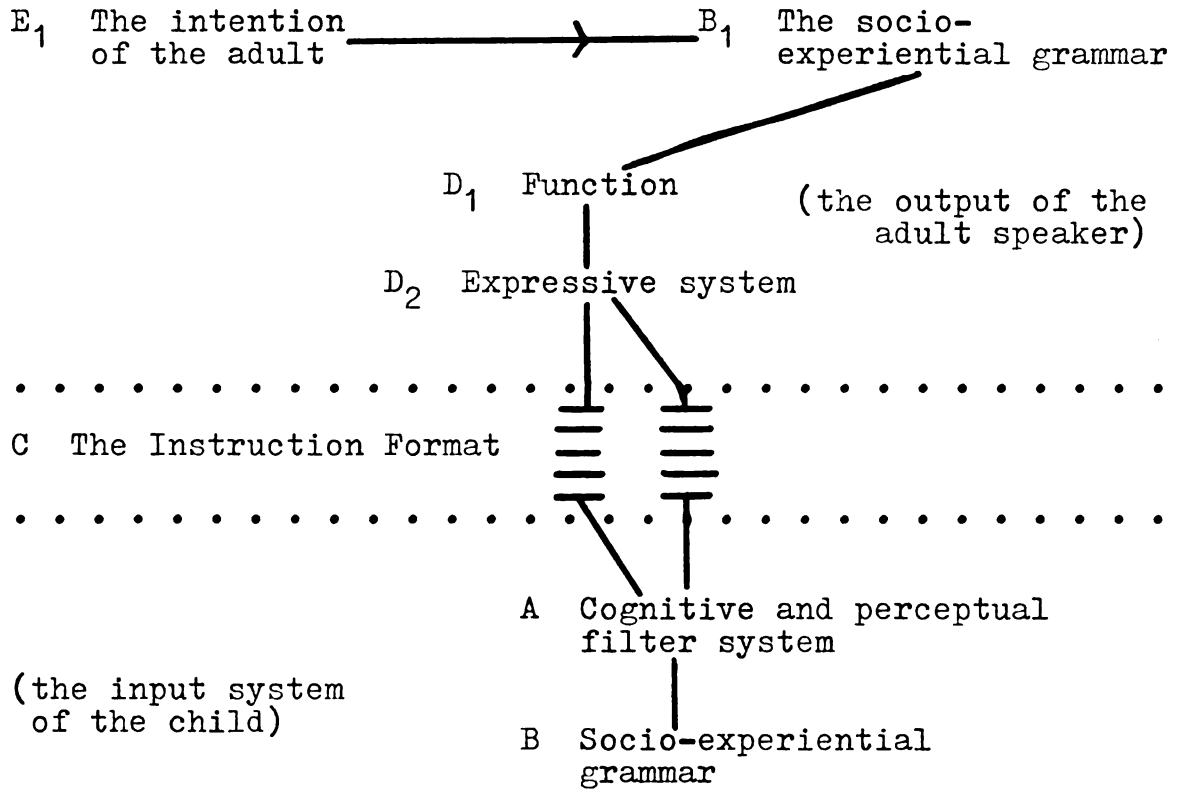


figure two

A Holophrastic Child's Communication Network

A, B and C represent the material at hand before the integrative linguistic universal (discussed in section 1.0, p. 7) goes into effect.

First, assume that the utterance produced by the adult will be perfectly compatible with the level of comprehension of the child. If not, it would be automatically filtered out by the perceptual filter (A) of the child. The intention of the adult (E_1) is mapped on to his perception of the social context (B_1) which includes assessment of the level of the child and instructions for code adjustment. B_1 also serves as a filter to insure that the function of the utterance will be appropriate for the child (D_1). The function (D_1) is then mapped on to the expressive system (D_2). That can be verbal or nonverbal, but in this case we are using verbal instruction as the message. The utterance that leaves the expressive system is further constrained only by the fact that it must be delivered to the child in the Instruction Format (C).

After the message has cleared the child's filter system (A), it is then mapped on the child's socio-experiential grammar (B). Whereas the adult's socio-grammar is basically what is understood as context (Lakoff 1972), the child's socio-grammar (B) represents the total processing component, each utterance being associated with one social meaning.

The important feature of the child's output system

is that the intention of the child, after being adjusted by B and checked by A, is then expressed as a one-word utterance, unique in function, that is embedded in the Instruction Format. The Instruction Format, in a sense, provides the container (or form) for the expression of the child's intention.

As noted above, A, B and C represent the 'material' for our putative linguistic universal. A, the cognitive and perceptual filter system, seems to limit the child to comprehending and producing only 'one word at a time.' B, what has been termed the socio-experiential grammar, provides the usage and analysis commensurate with A and the child's experience. The interesting question as far as the Instruction Format (C) is concerned is whether or not the child actually sees the attention-element (or function) as being qualitatively different from the speech and nonverbal gestures that comprise the rest of his primitive communication system (see footnote three).

9.0 Conclusion

The experiential universal approach developed here was an attempt to at least, in principle, move toward a separation of language-related universal phenomena into two categories: those that may be universals of human social experience and those that may be biological properties of the human brain. It was felt that this project was justified on two grounds. First, there is no reason, a priori, why the onset of grammar at the two-word phase should be considered totally linguistic, cognitive or biological. Even if that should be proven to be the case, we are obliged to at least do something more than continue to merely pay lip service to the interrelation between language and the nature of human society. The holophrastic phase of child language acquisition affords us a unique opportunity to observe the contribution of language to society and the influence of society on language . . . before language becomes an autonomous form system. Second, what begins as a universal of human socialization, learning how to set up channels of communication, later becomes the most dynamic and explosive factor in linguistic interaction among adults.

The construct of the Instruction Format was intended as a not implausible hypothesis as to how it is, in part, that a child can convey so much information and comprehend complex instructions with no apparent knowledge of syntax. Obviously, the holophrastic child knows how to communicate

quite effectively, but how can we characterize that knowledge? The Instruction Format is not an answer to that question, but by focusing on the communication situation it does point to some less ambitious questions that can, in time, be answered.

The holophrastic child is already aware of certain communication strategies, analogous to the linguistic/cognitive strategies of Slobin(1971), that he has learned in social interaction. For example:

- (1) Before you ask for something, be sure that you secure the adult's attention (by using his name, a call of some kind or a gesture). Once his attention is secured, follow immediately with your instruction.
- (2) You can tell when you are about to be instructed by the way the adult tries to catch your attention (with devices similar to those above). As soon as you acknowledge, the instruction will be delivered.

Various proposals have been made to explain the appearance of the subject of the sentence on the basis of the child's emerging awareness of someone other than himself as agent (McNeill 1970, Sinclair-deZwart 1973). Theories of that nature argue that because of the egocentric nature of the child's awareness during the holophrastic phase and even somewhat later (Piaget 1928), he initially sees himself as the only agent in the world and does not see the necessity of expressing the subject or agent overtly. In

the two-word phase the child does begin expressing other agents that appear in what will become the subject position. If Bloom(1973) is correct, the holophrastic child may be simply cognitively incapable of expressing the notion of agent as an isolated element (not that he just does not see the necessity of it!) since 'agent' entails semantic relationships that are only available to the child during the two-word phase. However, the attention element of the Instruction Format does provide some support for the idea of at least the holophrastic child himself frequently being the understood agent of instructions. By that time he has had a great deal of experience in seeing himself as the target of the instruction: 'Child do X,' and has utilized the same format when attempting to manipulate the behavior of others.

The decision that the message aspect of the Instruction Format be considered a functional and morphological instruction/imperative was based on: (A) the claim that the function of holophrastic utterances and the primary function of speech directed at children is best characterized as being pragmatic, and (B) the morphological shape of adult input to the holophrastic child (particularly, pragmatic utterances) and what may be a rather superficial similarity between the imperative and declarative utterances of the child before he uses morphological markers.

That similarity may prove to be the source of some

additional insight into the way the child moves into the two-word phase. One indicator that the Instruction Format might possibly assist the child by giving him a pattern to follow comes from examples such as the following from Jeromy when he was just beginning to use two-word utterances (age 1:8 years):

'Daddy. Daddy!' (Jeromy was standing by the sink waiting for his father to get him an apple.)

(As his father approached, Jeromy looked at him and said to his father):

'Daddy! Daddy wash-it.' (using an intonation contour with a distinct declarative sound to it)

From his actions it was clear that he meant his utterance to be a command. The declarative intonation contour (descending from 'Daddy' in the two-word utterance) had just recently begun to show up in his speech, but this was the first time he had been heard to use the contour on an imperative. A few days later, in fact, he used the same words (in an identical situation) but this time the intonation was distinctly imperative: 'Daddy, wash it!' From this and other instances it appeared that for a matter of a week or two Jeromy was experimenting with a new intonation contour (declarative) for the command. Soon, of course, he was using both under the proper conditions. Since the importance of this tenuous piece of evidence was not recognized at the time but was only later noticed in some sketchy notes of two unrelated observations, this phenomenon (if in fact it

is as it appears) deserves careful attention. The value of the Instruction Format, seen in this perspective, may be in studies of the acquisition of sentence intonation.

The exact nature and function of the attention element in language development is an empirical issue that also deserves extensive study. Research could be directed not only at the role of the attention function in holophrastic speech, but also at later stages to see when the child learns that discourse structure can often take the place of constant 'attention-getting' before each exchange of information.

The aim of this thesis has not been to accumulate evidence for an educated guess as to what might be the nature of the underlying mechanism that somehow allows, or compels, the child to use syntax. As Bever(1973) implies, we do not need to specify what is innate; we need to find out what is not innate. Perhaps it is a more reasonable strategy to begin by attempting to first make explicit what communication skills the holophrastic child has acquired (and when), the course of his cognitive development, what he knows about the nature of society . . . and then return to the question of what is innate.

The very development of language may be secondary or derived in some sense from interactional movement, bodily feeling, and the group structures in terms of which our parents raise us (Searles, Swope and Benjamin 1972, p. 270).

10.0 Some implications

One recurrent idea throughout this work has been the importance of the child's ability to get the attention of other human beings. The concept of attention, used in a broader sense, is at the very basis of personality development. The child who is able to establish meaningful and intimate channels of communication with his parents (or someone) in an atmosphere of trust and confidence stands a much better chance of being psychologically healthy than a child who is denied such relationships. The implication for language development is obvious. A child who receives a great deal of verbal attention and is consistently successful in making others pay attention to what he has to say will be more capable of expressing himself verbally, all other things being equal. However, the child who perceives that he can not get through to other people at some point in his early development (for whatever reason) may even stop trying to reach out, apparently the case in certain types of autism.

For the child acquiring a first language it is critical that he internalizes the universal format for establishing communication and then those additional conventions that his native language employs. The child (or adult) who is learning a second language must also learn a set of attention conventions for the new language. In other words, how do you signal that you want to say something to someone in this new culture and what constitutes acknowledgment of a

successful contact? This implies that in teaching a foreign language it might be helpful to begin by exposing the students to the interaction conventions of the culture and the sound of the language before they actually are required to try producing any sounds in the language themselves. For instance, it has often been suggested that it might be a good idea to first teach intonation patterns, since the child seems to have command of the 'tune' of his language months before he begins using sentences. That sounds rather appealing, the idea of concentrating on a set of language learning readiness conditions appropriate to the target language, but the problem is developing techniques that can accomplish that. A principle along those lines may account for some of the success of Asher et. al.(1972 and 1974) in teaching the initial phase of foreign language classes by having the students respond to commands, without speaking.

A last point that this study brings out is that learning language is ideally a relatively private experience where using the language and getting immediate, personal responses are essential (at least, psychologically). In terms of an adult learning a foreign language, most people can learn to communicate rather effectively in a short time, given the motivation to do so, with a one-on-one situation (the assumption of the Berlitz schools). The feeling of accomplishment that comes with success in making yourself understood is the key to motivation in all language learning (and in

learning, in general). One reason why it is so difficult to create that sort of environment in a classroom situation, aside from the personal aspect, is that the classroom imposes its own culture on a language that is already out of context. If the foreign language teacher in the classroom still has dreams of his students being able to eventually think in the language, perhaps he should stop fighting the fact that they are in a classroom and begin by helping the students first become acquainted with the culture and the language (perhaps as discussed above) while still communicating effectively: in their native language. There is an interesting relationship between learning a new language and a new culture, and being able to communicate adequately. It may be that the cost of not speaking the new language immediately will be outweighed by the sense of confidence with which students can be eased into the new cultural context. By the time the child is using language as complex as that demanded of the adult foreign language learner, he has already internalized a great deal of the culture. Perhaps what we should do is give the adult the benefit of an analogous period of exposure to the language and the culture so that he can indeed go on to learn the language and the culture . . . like a child.

Footnotes

¹Though Robin Lakoff (and generative semantics in general) is only cited twice in the text, the idea of extending the domain of language to include context, a basic tenet of generative semantics, has had considerable influence on my approach to child language and particularly the characterization of the holophrastic phase.

²The relationship between giving commands and motor responses (or nonresponses) has not been lost on researchers. Asher, et. al.(1972 and 1974) have conducted experiments in second language learning, using commands tied to motor responses. Their results, although somewhat ambiguous, indicate that motor responses to commands, without any verbal response, in the initial phases of language learning is a successful technique. It is also more than a coincidence that all studies of comprehension with children under two years of age use the same command-response model (Shipley, Smith and Gleitman 1967, Slobin and Welsh 1971, etc.).

³This is an empirical question that can be investigated. My observations on this phenomenon come from several observation sessions with my son and other children in the early holophrastic phase. In available data from other research on this period almost no mention is made of the communication setting and the verbal and nonverbal cues used in getting attention. A notable exception is the set of transcripts of video-taped sessions between Lois Bloom and

her daughter, Allison (Bloom 1973, pp. 150-257). Bloom included considerable detail as to the nonverbal gestures, but did not go nearly far enough. When Allison used some overt attention element such as saying 'mama,' touching her mother or pointing, it is on the transcript. What we need to know is what Bloom did before saying something to her daughter. We need to know if Allison was interacting with her mother when the transcript only tells us that Bloom responded. To what degree was Allison consciously monitoring her mother's attentiveness? It is clear that whenever there is a clear break in the pace of the session the next interaction requires an attention element, but to what extent did Allison use eye contact and other such devices? The basic question is: does the holophrastic child perceive eye contact or a gesture to be any different from a verbal cue or a person's name?

APPENDIX

APPENDIX

This appendix is an abbreviated version of a paper presented to a seminar on child language acquisition at Michigan State University, conducted by Dr. Julia Falk, Fall Term, 1973. It is included for two reasons: to illustrate certain aspects of the way Jeromy comprehended instructions (age 1:2 to 1:4 years) and to show some of the considerations that led to the construct of the Instruction Format.

The purpose of this series of experiment-observation sessions was to examine the notion that children in the holophrastic phase react to commands as if the commands had no internal structure. This was studied by assessing the nonverbal responses to commands given to one child, my son, Jeromy (age 1:2 to 1:4 years).

At age 1:2, Jeromy responded readily and correctly to any of the six possible word orders of (1):

(1) (Jeromy) put the ball in the box.

assuming that there are three constituents (those underlined). In the sense that shifts in word order did not appear to affect his comprehension, he was not attending to the internal structure of the command. However, it turned out that there were elements, not internal to the surface syntax of the command, but rather internal to the structure of the

speech act (command) that did influence comprehension.

A command such as (1) given to Jeromy, using normal adult intonation (with a descending contour from the first constituent) was very difficult for him to comprehend without repetition. However, the same command, given with an intonation contour that stressed each content word (termed here: a highlighting contour) was usually comprehended and acted upon without requiring repetition. Because of the child's susceptibility to distraction, every command had to be prefaced by a distinctive attention element such as his name or eye contact. Commands not so 'announced' stood a slim chance of being acted upon at all. At age 1:2 Jeromy had acquired a few sets of relator + object pairs that he could comprehend, that could not be violated:

(2) Jeromy, throw the whale! (He would not obey this command because at that point he was only aware that balls could be thrown).

(3) Jeromy, kiss the book! (This was also absurd to him; he was only kissing people at that point, not books).

(note: At this place in the original paper there followed an extensive survey of previous research using commands with children Jeromy's age. That discussion is omitted here).

The following format was developed to use with Jeromy that allowed three variables: intonation contour, word order and the type of co-occurrence restrictions noted above in reference to (2) and (3):

A. a command such as (1) using adult intonation contour and then another using the highlighting contour.

B. a command using a deviant word order plus the adult intonation contour and then another with deviant word order and the highlighting contour.

The sessions were conducted on six consecutive weekends.

At least two examples of each type of command were given to Jeromy (whenever it was possible to get his attention).

The results that follow are actually a set of apparent tendencies extracted from notes of the six sessions. They have been clustered around the initial and final sessions in order to emphasize the direction of change. Stage one represents roughly the first three sessions; stage two was most obvious at the last session.

Intonation

At stage one commands using the adult intonation contour were definitely more difficult for Jeromy to comprehend, but the highlighted contour usually made repetition unnecessary.

At stage two he was beginning to pick up some commands utilizing the adult contour, especially those composed of only a transitive verb and an object. Longer commands containing a locative element still generally required the highlighted contour. In fact, even a command containing considerable extraneous material (such as learned words, etc.) was comprehended with little difficulty at this point if the

content words of the disguised simple command were highlighted.

Word order

At stage one word order seemed to have absolutely no effect on Jeromy. Deviant word order (to the adult) in conjunction with the highlighting contour may even have been a little easier for him to process.

At stage two, using the highlighting contour, word order still seemed to have no effect, but a shift in word order (to a deviant order) produced improved comprehension when using the adult contour. The reason for this is probably that it was almost impossible for the adult to give a command such as 'In the box ball put.' and not somehow set off the constituents. Here the interplay between intonation and word order was very evident.

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