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FROM: Learning the Mother Tongue
by CLARE PAINTER

Introduction

It is a commonplace, both of our everyday commonsense ideas about language, and of educational and linguistic theory, that before the age of five any normal child has mastered his or her native language (with the exception of literacy skills of course). This being the case, the language is seen as available to him or her as a tool for learning other things once he or she gets to school. In this book, we will be exploring the way the child comes to this linguistic achievement in the first few years of life.

The most important reason for doing this is to come to an understanding of the essential nature of language itself. If we observe the growth of language abilities from their very beginning, then we have the best chance of understanding how (and why) the fully fledged adult language works as it does. And without a clear understanding of this, we will be in no position to judge the merits or demerits of various educational proposals, either for the development of children's language itself, or for using language more generally in an institutional setting.

Insights gained from an examination of pre-school language development will, I hope, put us in a better position to assess in what sense and to what degree it is true to say that a two-, three-, or five-year-old has 'acquired' the mother tongue. And we will be in a better position to judge whether it makes sense to separate language and 'content' as is so commonly done in educational contexts.

If we wish to trace the development in a child's life from being a prelinguistic baby to a competent language user, then the obvious place to start our investigation is when the infant first begins to use language, in however limited a way. It may therefore come as a surprise to find that it is not an entirely straightforward matter to determine at what point one should begin an account of language development, nor what kind of measure should be used to assess linguistic progress.

Typical parents, of course, have no such problems, and will state authoritatively that their child began to talk at some precise moment—usually on the basis that this was when the first word was uttered by the child. However, linguists, who make the study of language their business, have chosen both later and earlier points as heralding the beginning of productive language. In doing this they have been directed

by their different theoretical preconceptions, and in the following section I shall refer to the most prominent trends in child language research in recent times. In this way, the research and attitudes I shall be putting forward in the rest of the coursebook will be placed into some kind of intellectual context for you.

Chapter 1

Child language studies: a brief overview

Language as a syntactic system

During the 1960s, under the influence of Noam Chomsky and his theory of TRANSFORMATIONAL GRAMMAR (Chomsky, 1957, 1965), language was technically defined as a set of rules describing different sentence structures. The essence of language was taken to be its syntactic structure, and so the most interesting starting point for language proper was the production of the first two-word structures—the beginning of syntax. Thus, the children most intensively studied at this time were in their second or third year of life (see Braine, 1963; Brown & Bellugi, 1964)

In transformational theory, as articulated at the time, there were two sets of rules that described language: phrase structure rules, which describe a limited number of abstract linguistic patterns, known as deep structures; and transformational rules, which converted these abstract deep structures into the variety of surface structures of actual speech. Developing language was therefore seen as a matter of acquiring these two sets of rules. But the linguistic data to which a child is exposed consist solely of surface structures (i.e. language as uttered), and surface structures do not directly reveal either deep structures or transformational rules. It was therefore a logical concomitant of the theory to propose that in some sense 'knowledge' of the rules of linguistic structure is innate in the child—the 'innateness hypothesis'.

In this theory, the system of language is therefore seen as too complex for it to be learnable from exposure to the phenomenon. Language development is seen as taking place smoothly as a result of intellectual growth, rather than because of the nature of language itself, or any role it might play in that cognitive growth. With the increasing complexity of 'cognitive structures', increasingly complex linguistic structures are to be expected. Some researchers have even endeavoured to find direct parallels between particular cognitive skills and mastery of particular linguistic structures. For example, one experiment sought to demonstrate a relationship between the capacity to manipulate and stack cups of varying sizes on the one hand, and the linguistic capacity to use dependent relative clauses on the other (Greenfield et al., 1972).

Not only the innateness hypothesis, but this whole approach to language focuses on the individual and his or her mental apparatus. One effect of this orientation was a lack of interest in environmental factors such as the kind of interactions in which a child engages when producing language, or the kind of language to which a young child is exposed. Correspondingly, linguistic progress was measured by mean length of utterance (MLU) produced by the child, rather than in other terms, such as the appropriateness of his or her contributions to conversational discourse.

The mean length of utterance is a formal measure of linguistic progress.

Language as a semantic system

Chomsky considered the system of syntactic rules that constituted a language to be something self-contained and accessible to investigation. He followed the tradition of the influential American linguist, Leonard Bloomfield, and his structuralist school, in regarding the area of meaning in language as far less amenable to rigorous scientific analysis than syntactic or phonological structures.

Meaning in language was held to be inaccessible to rigorous investigation.

However, many linguists became dissatisfied with this restrictive approach to their discipline, and psychologists and others studying child language were not always content to accept that no explanation for the swift mastery of language need be sought beyond the individual's supposed inborn knowledge of linguistic rules.

One way of approaching meaning in language adopted by some (Ingram, 1971; Schlesinger, 1971; Greenfield & Smith, 1976) was to regard deep structures as being semantic rather than syntactic in nature. In the context of child language research, this meant interpreting an utterance like *Daddy come* as a basic Agent + Action structure, rather than a subject + verb one. The assumption was that 'semantic structure' exists transparently in the real world, and that the child's task is one of matching words to this observable reality: 'Children might use the context of real world events as a structured framework which could be gradually filled in with verbal forms' (Greenfield & Smith, 1976, p.30).

One or two assumptions underlying this approach need pointing out here. One is the assumption that there is a simple isomorphism (a one-to-one correspondence), between any 'bit' of extralinguistic reality and a linguistic form. This implies, for example, that there is no difference between languages in the way that they read or encode the 'same' reality. It also implies that there is no difference between the interpretation of a real world event made by a very young child, and that made by adult speakers of the language. Such an approach inevitably tends to analyse children's utterances as failed, unsatisfactory, or incomplete attempts at adult speech. Finally, I would suggest that to regard matching words to reality in this way as the sum of the child's task is an over-simplified view both of what language is and of what we do with it.

Although those who viewed language as semantic structure saw themselves as departing quite radically from the Chomskyan tradition, there are in fact many similarities in their approaches to language and language development. In both cases, language is regarded as a self-

contained set of rules defining structures (rather than, for example, a kind of communicative behaviour), and in both cases children's utterances tend to be viewed as a version of adult speech rather than as a system of the child's, functioning to serve his or her own peculiar needs.

One of the gains of the semantic approach to child language was that greater attention was paid to the situational context in which speech occurred. (This was necessary in order to determine whether a named object was to be regarded as an Agent or Patient or Location element in any particular utterance.) It was not, however, until the 1970s that the **linguistic** environment for early utterances became the focus of attention. Chomsky had stated that the language the child hears during his or her language-learning years is a degenerate sample, full of false starts, hesitations, self-interruptions, and the like. This opinion had been accepted uncritically by many linguists, although it was not based on any empirical examination of speech addressed to babies and children.

The Agent is the 'doer'; the Patient has something 'done' to him/her/it; the Location element refers to the place where something happens.

Language as interaction

'Motherese'

In the 1970s, there was a burst of interest in, and research into, the language spoken to young children—a style of speech that became known as baby-talk, or 'motherese' (see Newport, 1976; Snow & Ferguson, 1977). This work posed questions such as the following: Are there special ways in which mothers talk to very young infants? If so, what are they? And how might they be relevant to the child's learning of language?

Other paradigms had seen the language learner solely as an individual who gradually achieves cognitive, and hence linguistic, maturity in the process of coming to grips with the nature of the real world. By contrast, this kind of research took it as of paramount importance that language learning is something that the child achieves in the course of interacting with other people. It stressed the importance of the linguistic, rather than the material, environment, and saw this as the factor enabling the child to learn language swiftly and successfully.

Although many of those working in this area did not have any very sophisticated means of analysing discourse, they were able to arrive at some relatively firm conclusions. They found that the language addressed to infants is by no means full of hesitations, false starts, and obscurity. On the contrary, mothers use clear, well-structured utterances, and work very hard at verbal communication with their children. This involves them in frequent rephrasings and repetitions, clear articulation, arresting intonation patterns, and making the most, conversationally, of any contribution by the child.

A further finding was that mothers 'fine-tune' their speech to match the changing level of competence of their children, producing more complex structural forms and fewer repetitions as the child's command of the language increases (Cross, 1977; Snow & Ferguson, 1977). Such findings strongly suggest that the fact that speech occurs in interactive

settings is highly relevant to the fact that it is learned, and learned in a comparatively short period of time.

Speech act theory

The late 1960s and the 1970s also saw some new theoretical approaches to language, which focused on its interactive aspects, rather than defining it in terms of form, as a set of structures.

The work of the philosopher, John Austin, and his SPEECH ACT THEORY was most influential here. Austin (1962) had pointed out that utterances might be classified as various kinds of speech act according to their communicative function. That is to say, the sentence *My car is a Holden* can be seen as having a descriptive function, conveying a fact, whereas *Open the door* or *I need a bigger nail* are both speech acts having a directive function, aimed at getting the addressee to do something—and so on.

In order to determine the function of an utterance, it is obviously necessary to pay considerable attention to the speaker's non-verbal behaviour, and to the general speech situation, since these factors may indicate a speaker's intentions more clearly than the actual syntactic form of what is said. Moreover, if language is defined in terms of communicative behaviour rather than syntactic form, then it is possible to link it with other kinds of behaviour, including pre-linguistic behaviour. One of the primary effects, then, of this change of focus, as it concerns child language studies, has been to allow much younger infants to be studied (see Bruner, 1975; Dore, 1975; Bates, 1979; Waterson & Snow, 1978).

Infant psychology

In addition, a number of psychologists have recently become interested in neonatal and infant behaviour, and have adopted a new approach in this field. Their methods consist of observations of the vocal and other behaviour of infants in as natural a situation as possible. This work focuses on spontaneous behaviours rather than data elicited from contrived, experimental situations, and has greatly contributed to our understanding of the prelinguistic child. (See Lock, 1978 for a valuable collection of papers here.)

The kinds of earlier behaviour that can be linked with language development include the gazing and attention-exchanging behaviour of infants, the establishment of turn-taking rituals, and the way the latter lead to games with the adult where different roles are established and perhaps marked verbally in due course.

Functional theories of language, such as speech act theory or pragmatics—the study of rules of language use—often look at development as an increase in the child's repertoire of speech acts—evidence of being able to do more things with language. Typical early speech acts recognised are such things as labelling, protest, refusal, repetition, request, etc. Development can also be seen in terms of learning to convey, by conventional linguistic forms, meanings previously conveyed by gesture and non-language vocalisations (see Bruner, 1975), or by verbal, but non-grammatical, expressions (see Dore, 1975).

meaning-oriented assessments of linguistic progress

Chapter 2

Systemic theory: language and metafunction

In Chapters 3 and 4 of this book, I shall be discussing the language development of my own son, Hal, in the first two years of his life. This will be with a view to exploring with you what was involved in his becoming a speaker of his mother tongue, and what we can learn from that about the phenomenon of language and what it means for anyone to be a language user. It should, however, be apparent from Chapter 1 that no such investigation can take place without some preconception as to what language is, and in this section I propose to sketch out some of the ideas about language that have informed my own research in this field.

If we consider language simply in terms of an abstract, highly complex system of interrelated rules of sound and syntactic patterns, then the ability of every normal child to gain control of the system within a few years of birth is little short of a mystery. And an attempt to explain the mystery has to be directed at exploring the child's cognitive apparatus. This was the inclination of transformational theorists, and the child language data they explored were often elicited in experimental situations in order to collect and focus on specific linguistic or cognitive structures.

Language is a social phenomenon learned in interaction.

However, if, as I would suggest, we accept that language is a social phenomenon, we are led to observe that the interactions engaged in by the infant are distinctive, and relevant to language learning. This leads us to suppose that the way communication takes place between the child and his or her intimates—parents, care-givers, siblings—at least partly accounts for how language comes to be learned. Such a claim would be accepted by all the various 'interactionalist' approaches, including that of systemic theory, which is the linguistic theory I shall be adopting to explicate language development in the rest of this book.

Extensive references to Halliday's work and its evolution appear in the other books in this series.

SYSTEMIC THEORY, as developed most prominently by M.A.K. Halliday (1976, 1978, 1984), is distinctive in being a functional theory in a more profound sense than is speech act theory. Like the latter, it is functional in that we are interested in what someone does when making an utterance—in whether the utterance is used to control the addressee, to provide information, to make a promise, etc. But, unlike other theorists, Halliday has suggested that the requirements that humans have placed on language have given it a certain organisational

shape, reflecting just a few basic functions of language, which he calls METAFUNCTIONS. The fact that language is organised in terms of these metafunctions makes it readily learnable by the infant, while conversely, it is by looking at how language evolves in the history of the individual that its functional organisation can be most clearly demonstrated. This is why it is of great interest to explore the early years of language development, even if our applied interests focus on language in later life.

I have said that language is organised in the way that it is because of what we need to do with it. One thing we obviously do with language is to talk about things, to make reference to the world of experience (including 'inner', mental experience). This is the function focused on by 'semantic' theories of language—our ability to make reference to objects, events, relations of time, place, cause, etc. In systemic theory this is characterised as the experiential function of language, or the EXPERIENTIAL METAFUNCTION.

the experiential metafunction of language

Equally uncontroversial now is the recognition that, on the whole, language is used to communicate with someone else. As human beings, we talk to each other and expect those we address to take different utterances in various ways: as instructions, contradictions, questions, statements, commands, etc.—different moves and sub-moves in exchanges either of information or of goods and services. This is the function of language that focuses on the status of an utterance as an interaction with another person, and so it is termed the INTERPERSONAL METAFUNCTION. This is the function of language that speech act theory pays greatest attention to.

the interpersonal metafunction

There is a third function of language recognised within systemic theory, which is one intrinsic to language—that of being coherent as text. A text—whether it be a casual conversation or a work of art—is never a random set of sentences, but something whose component parts are relevant to the context, both linguistic and situational. This intrinsic function is termed the TEXTUAL METAFUNCTION.

the textual metafunction

What does it mean to say that language is organised in terms of these three functions? It means that the grammar of a language has three components, each of which is a set of meaning choices. There are a number of experiential meaning choices such as that between an action meaning (*run*, *break*) and a cognition meaning (*see*, *think*). There are interpersonal meaning choices, such as the choice of questioning as against answering, or the choice of using an expression of attitude like *unfortunately* in *Unfortunately, it rained*. In addition, there are textual options, such as the choice of which element should begin the sentence, or which should receive intonational stress, with regard to the previous sentence or utterance.

Each of these sets of meaning options constitutes a relatively distinct part of the grammar, but choices are made from each set whenever we speak. (These choices are not to be seen as conscious, psychological choices, of course.)

To make all this clearer, let us take the utterance *Did Jim take the book?* This clause makes reference to an action, a person (who performed the action), and an object (which suffered the action). All this concerns the experiential nature of the clause, which would be exactly the same for *Jim took the book*. The elements of either clause

can be analysed into the same three parts: Actor (*Jim*), Process (*take*), Goal (*book*).

The difference between the two is one of demanding information in the first case, as against giving it in the second—in other words in its interpersonal status. It is the position of the Subject element that tells us which interpersonal structure is involved: in the interrogative questioning form, the Subject follows the first part of the verb, while in the declarative, it precedes it.

An element such as *the* is obviously involved in linking the utterance to some context, and the difference between two forms identical in both experiential and interpersonal aspects, such as *Was the book taken by Jim?* and *Did Jim take the book?* can also be related to the textual function of creating links with the larger discourse, rendering the utterance a relevant one.

The different meaning components of the grammar are thus each producing a distinct structural patterning, and all three co-exist in any single utterance produced. In this sense, then, the language is organised into metafunctional components.

It was with this conception of language as organised in terms of these three fundamental functions that I approached the study of language development that I shall refer to here. Moreover, Halliday's own account of language development (Halliday, 1975) is also the chief source for many of the ideas I shall be putting to you here.

Chapter 3

Phase I of language development

Although I have tried to sketch out some of the main theoretical claims about language made by systemic theory, it is by observing the development of this tri-partite metafunctional system in the early life of the individual that the nature of language is perhaps most clearly revealed.

In this and the next three chapters, I shall therefore give some account of how my son, Hal, learned his mother tongue in the first two years of life (see Painter, 1984 for a more detailed account). However, to make the description more succinct and less complicated, I shall focus only on the development of the experiential and interpersonal metafunctions, ignoring for the most part, that of the textual metafunction.

Since the theory suggests that we are interested in the evolution of these general metafunctional meaning areas, it makes sense to see the beginning of the story as arising at the point when vocal sounds made by the child are first used in a meaningful way. A communication system of sorts can be recognised once there is a 'constant relation between the content and the expression' (Halliday, 1975, p.14). In other words, for a sound to have some symbolic import, it must always carry the same identifiable meaning.

This may well sound like an account of 'first words' and how to distinguish imperfect imitations of words from random coos and cries. But this is not the point at all, for a number of studies (for example, Halliday, 1975; Bates, 1979; Carter, 1979) have now demonstrated that the child in his or her first year of life creates his or her own small set of meaning–sound symbols without reference to the mother tongue. This early symbol system is termed by Halliday (1975) the PROTOLANGUAGE.

Hal's protolanguage

What kind of meanings could an infant in the first year of life be expressing? Let us look at the symbols (or signs, as Halliday calls them) used by Hal when he was a little over nine months old, about two months after he first began to create such signs.

Signs used by Hal at nine and a half months

1. [ga]—'gah'
This was spoken in two ways and used in two kinds of situation.
(a) One kind of situation was when he was manipulating some object or toy. On these occasions he spoke without emphasis and without looking up from his task, as if to say just 'I'm busy with this'.
(b) In the other kind of situation, he was also handling an object but would hold it aloft and make eye contact with his addressee before saying [ga] loudly and forcefully, as if to say 'see what I'm doing' or 'see what I've got'.
2. [x:]—a soft hissing at the back of the mouth
This was uttered with a smile when a familiar person came into view for the first time, as if to say 'that's nice—it's you'.
3. [gaɪ gaɪ gaɪ]—'guy-guy-guy'
This was sung softly to himself as he lay back after finishing a bottle of milk, as if to say 'now I feel content'.
4. [amamama]—'umm-umm-ummu'
This sound was used while Hal made reaching gestures towards food or other desired objects. Usually his gaze oscillated between an addressee and the desired object, and he persisted with the sign until he was given the object or realised tearfully that he was not going to get it.

[ ] enclose phonetic symbols when they appear in isolation in the text; the symbols are those of the International Phonetic Alphabet (alphabet of the International Phonetic Association).

When we consider this little set of symbols, we can see that 1(a), [ga], and 3, [gaɪ gaɪ gaɪ], occurred in what we might call non-social situations, and were concerned respectively with expressing interest in the environment and contented reaction to some aspect of it. Halliday has suggested the term PERSONAL FUNCTION for signs of this kind, and because these two can both be interpreted in terms of one function, they can be represented as more closely related to each other than to any other symbol. This can be indicated schematically by linking them as different meaning possibilities within this one function as in Figure 3.1.

Figure 3.1

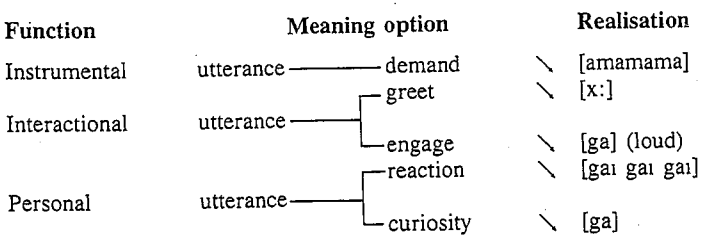
Function	Meaning option		Realisation
Personal	utterance	reaction ↘	[gaɪ gaɪ gaɪ]
		curiosity ↘	[ga]

Figure 3.1 is to be read as saying that any utterance interpreted as fulfilling the personal function will have one of two meanings, either a 'reaction' or a 'curiosity' meaning. If the former, then the meaning is expressed by [gaɪ gaɪ gaɪ], if the latter, then by [ga].

Of the other signs, 4, [amamama], is distinctive in being used as a means of getting things, while 1(b), the forceful version of [ga], and 3, the greeting [x:], are related to each other in that both serve to initiate an occasion of sharing or togetherness. Thus the protolanguage can be schematised for this stage of development as in Figure 3.2.

If we stop for a moment to consider the uses to which we ourselves put language, and the different meanings we can convey, the list will

Figure 3.2 Hal's protolanguage at nine and a half months



be almost endless. In comparison, the functions of language indicated here for the infant just beginning to use symbols are few, and the meanings given expression are very limited. This is as we would expect of course, but despite this restriction, we can see that the meanings expressed do spread across a range, in that some were more concerned with the world of objects, events, and feelings, while others additionally—or instead—took on more the character of a dialogue, where another person was addressed and generally made some response to the child's vocalisation.

The later protolanguage

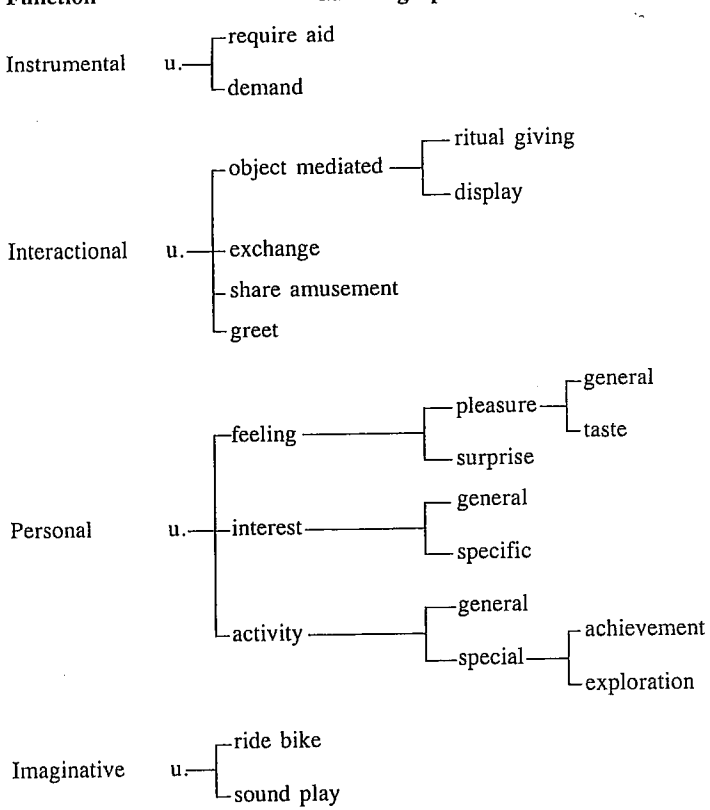
In Figure 3.3, we see the way in which this protolanguage had expanded by the time another four months had passed.

Expansion of the linguistic system took the form of additional meaning choices within existing functions, and one additional function where vocalisation accompanied a 'let's pretend' situation, or constituted a kind of play with patterns of sound (and perhaps meaning). By this age, Halliday's son, Nigel, had an even more extensive system of signs (Halliday, 1975), and there are doubtless other children who have produced smaller ones (see Carter, 1979). There will certainly be some variations too in the kinds of occasion that call forth vocalisation in different children.

What we need to consider here are the limitations and possibilities of this kind of linguistic system. With his protolanguage, Hal was able to 'communicate' with his inner circle, cementing relationships and engendering feelings of intimacy. He could express his reactions to the world outside, defining his own personality as he did so. Moreover, he could get what he wanted in the way of refreshments, playthings, attention, and comfort (to the extent that his communications were successful of course).

Perhaps the first question to ask is this: how necessary was it for the child to create a symbol system in order to do all this? It seems to me that in principle an infant could probably do all these things without evolving a protolanguage. But it is difficult to envisage as extensive a set of specific meanings as Hal created—meanings that were related to one another in differing ways—being conveyed without a vocal or gestural symbolic system.

Figure 3.3 Hal's protolanguage at 13½ months



Note: u. = utterance

Main realisation	Gloss
[ʔə] (a grunt)	'somebody do something!'
[mā] ('mah')	'I want that'
[dī] ('dee')	'here you are'
[a'dʒà] (loud) ('uh-jah')	'see what I'm doing/ see what I've got'
raspberry noise; [ʔæ ::ʔæ]('a-a')	'I say—you say'
[æ ::hæ ha] ('hahaha')	'isn't this hilarious?'
[dàda] (+ smile) (dadda)	'it's you! / you and me!'
[æ͡] ('a!')	'I like this (you know)'
[m:::] ('mmmm')	'this tastes good'
[o͡u] ('oh')	'ooh!'
[gà] ('gah')	'that's interesting'
[t̪θ] ('t-th')	'an animal—oh, how interesting!'
[gà] ('gah')	'I'm busy (with this)'
[a'dʒà] ('ajah')	'managed it!'
[a'dà; a'dá a'dá a'dà]	'I'm busy sorting (contents of) this out'
[br:::]	'I'm riding a bike'
signs; 'singing', etc.	'tra-la'

There is a further question to consider here, which is this: if he went on expanding his protolanguage, would he be able to do with it all the things we as adults do with language—to argue, threaten, invite, cajole, denounce, explain, and so on?

some social roles adopted in using the protolanguage

Let us consider the social roles children adopt or impose as protolanguage speakers. They appear to be of the following kind: demander (addressee as supplier) of food or objects; seeker (addressee as provider) of comfort, aid, or attention; expresser of feelings; participant in a game, and the like. And, as I have just suggested, these roles could also be played out non-linguistically.

However, there are many things adults do when they speak that involve them in adopting or assigning roles that can **only** be expressed by means of language. Examples would be those involved in seeking, providing, or disclaiming information; promising; expressing doubt or certainty; and so on. No matter how large a protolinguistic sytem might be, its user could not do with it all or any of these things that we feel are normal for even an immature speaker of language proper.

limitations of the protolanguage

What is the limitation of the protolanguage that prevents it from doing this? The most obvious shortcoming of the system would seem to be that only those in very close contact with the child would have a chance of understanding his or her vocalisations. While this is perfectly true, this restriction of membership of the speech community is not the kind of limitation I have been talking about. To consider the limitation of functional potential, we have to look at the nature of the infant symbol, or sign. Obviously one key limitation here is the apparent lack of representational or experiential content to the sign. By this I mean the child's inability to refer specifically to any 'bit' of outside reality. One cannot query, assert, or deny without some means of referring to things, persons, actions, and the like. A first step towards a more mature language will therefore be the introduction of names into the system.

Before pursuing this point, exactly what is meant by the term 'name' will become clearer if I answer the possible objection that Hal did appear to be able to refer to something specific with one of the signs of his protolanguage at thirteen and a half months. The sign expressed as [t̪θ]—'t-th'—has been glossed as meaning 'an animal—ooh how interesting!'. When we consider this, and other signs too, it is clear that a protolanguage **can** make reference to the real world, but not by means of names. [t̪θ] is not an infant vocabulary item equivalent to *animal* in English or *Tier* in German. This is because its meaning is not simply the experiential one of 'animal', but the whole of 'an animal—ooh how interesting'. In other words, its meaning derives solely from the personal function of reacting to, and expressing curiosity about, the immediate environment. Thus the 'animal' aspect of the meaning cannot be separated out and made available for use on other occasions to mean 'let me have that animal', 'let's play animals', or 'I'm pretending to be an animal'. Indeed it cannot even mean 'that **was** an animal—ooh how

interesting!'. So even though a child could go on increasing his or her repertoire of sounds, inventing new ones for each of the above meanings (should he or she wish to express them), it is clear that the limitation of the protolanguage is not essentially one of size, but of kind.