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ACCOUNT OF PIAGET AND CHOMSKY

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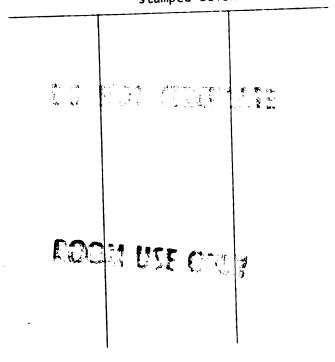of the requirements for

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TOWARDS A DYNAMIC CONCEPTION OF LINGUISTIC
COMMUNICATION: A CRITICAL-COMPARATIVE
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By

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ABSTRACT

TOWARDS A DYNAMIC CONCEPTION OF LINGUISTIC COMMUNICATION:

A CRITICAL-COMPARATIVE ACCOUNT OF PIAGET AND CHOMSKY

By

Akin Erguden

The Structuralism of Saussure and Chomsky proceeds from an epistemologial principle of holding itself to the interior of the enclosure of the universe of signs; language (la langue), according to this view, is an autonomous entity of internal dependencies. Central to the present dissertation is the argument that this epistemological position does violence to the true nature of the linguistic experience.

The dissertation suggests that Saussure and Chomsky wrongly subordinate parole to langue, excluding thereby the following fundamental aspects of language from any consideration: (a) communication (i.e., speech acts) as the goal of language; (b) history, as the production of culture and of man which is crystallized in language; (c) primary intention of language.

A two-fold claim is made throughout the dissertation. First, it is through language that we come to make sense of our world. That is, our knowledge is primarily an attempt to take the events from "real" world and capture them in symbols. Second, that an understanding of the origins and development of our knowledge (both phylo- and ontogenetically) is crucial for an understanding of knowledge itself. If these two claims are true, then it is maintained, lan-

guage cannot be viewed as a self-enclosed entity relying solely on the internal dependencies of the system of signs. Language becomes rather, a dynamic part of man's being-in-the-world which makes knowledge possible: Meaning and understanding (in and through language) arise from action or more precisely the interaction between the intentionality of the self and a concrete world of social-historical setting which includes other human beings.

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iii

TABLE OF CONTENTS

INTRODUCTION

If we take language to be the totality of man's speech behavior, we are confronted with an extremely complex phenomenon. This complexity is responsible _prima facie_, for the lack of consensus that exists among linguistic philosophers as to what should constitute the true nature of language. Among such diverse viewpoints about language, one could easily point several significant ones. Cassirer, for example, locates the essence of language within the "symbolic forms" through which the mind gives structure to the world. Another influential philosopher, Habermas, considers language within the context of the _a priori_ structures of human communication. Chomsky and the European structuralists view language as an abstract, formal system of signs, whereas Wittgenstein sees it within the socio-cultural setting of "forms of life." Phenomenologists like Merleau-Ponty, on the other hand, emphasize the subjective "act of speaking" as part of man's _Lebenswelt_. A contemporary philosopher expresses cogently this fundamental lack of consensus as follows:

> All linguistic philosophers talk about the world by means of talking about a suitable language. This is the linguistic turn, the fundamental gambit as to method, on which ordinary and ideal language . . . philosophers agree. Equally fundamentally, they disagree on what this sense a 'language' is and what makes it suitable.[1]

1

Despite this major disagreement concerning the nature of the language system, one particular view has prevailed among philosophers and psychologists since the late nineteen sixties. It is the structuralist[2] paradigm that language should be viewed as formal, static, synchronic relations among signs in abstraction from the functional, developmental and the subjective aspects of linguistic behavior. This idea originates in Ferdinand de Saussure, a nineteenth century Swiss linguist, and is revived in the early sixties by the structuralists in Europe and by Noam Chomsky in the United States. According to Saussure, a distinction must be made between <u>la langue</u>, the formal synchronic relations among signs, and <u>la parole</u>, the actual speech behavior. The purpose of the distinction was to isolate the "orderly" realm of the language system as the proper object of linguistics while excluding speech behavior as a realm of confusion where relevance and irrelevance was extremely hard to determine.[3] Noam Chomsky makes a similar distinction between the "linguistic competence," the abstract, formal system of rules which the "ideal speaker" is innately equipped with, and the "linguistic performance," the actual use of these rules in concrete speech behavior.[4] Chomsky's aim was the same as Saussure's: to isolate the proper concern of linguistic theory as the former, while excluding the latter from any such consideration.

The present dissertation is a critique of the structuralist conception of language as static sign, and argues in

favor of a concept of language as dynamic function and communication. It contends that the structuralist attempt to restrict the language system to formal, abstract, synchronic relations between signs remains inadequate since it excludes the essential dimension of language as intentional (i.e., goal-directed) activity. Human language is language because it is <u>used</u> for a purpose, namely to communicate with others. Communication does not occur <u>in</u> <u>vacuo</u>, but rather within a concrete social-historical setting (the objective dimension) as well as within the context of the intentional intersubjectivity (the subjective dimension). Human language when viewed as a goal-directed activity becomes not a formal, abstract relationship between signs, but rather a dynamic, living process through which human beings communicate with one another.

This study develops the argument against the structuralist conception of language in two major steps. The first step argues against Chomsky's concept of <u>language as static sign</u>, in favor of Piaget's conception of <u>language as function</u>. The second step consists of arguments for a conception of language as communication, an aspect which is lacking both in Chomsky and Piaget. Evidence for the second step is provided by philosophers such as Wittgenstein, Toulmin, Habermas, Searle and Merleau-Ponty.

The first step is a critical account of Chomsky's theory of linguistic competence. Here Piaget's developmental theory of "symbolic functioning" is contrasted favorably

with Chomsky's concept of language. There are two justifica-
tions behind such a move. First, Chomsky's claim that lin-
guistic competence is independent of other cognitive func-
tions and that as adults, we possess the same competence we
were born with,[5] excludes the possibility of understanding
anything of value about the essence of language as explored
in the early stages of human life before it is overwhelmed
by developmental circumstances. Second, from a developmental
viewpoint, a theory of language is a part of a theory of
action because language is a continuation of the child's
actions by alternative symbols. Thus according to Piaget,
the symbolic functioning as structure-governed action is
defined in terms of structures that are actively constructed
by the subject through his interaction with the environment.
These structures from which language emerges are themselves
action based. Hence, language cannot be considered in iso-
lation from the functional and developmental aspects of
human praxis. As Piaget puts it:

> Structures are inseparable from performance, from
> functions . . . To be real a structure must, in
> the literal sense, be governed from within . . .
> So we come back to the necessity of some sort of
> functional activity; and, if the facts oblige us
> to attribute some sort of functional activity to a
> subject, it is for our purposes sufficient to
> define this subject as the center of functional
> activity.[6]

Even though Piaget's theory implies a concept of lan-
guage as functional, dynamic and goal-directed activity of
the subject, it remains, in the final analysis, rather
limited in its contribution to a critique of the structural-

ist conception of language as relations between static signs. First, the "environment" the child interacts with, according to Piaget, is merely composed of physical-biological objects. From this realm of objects, other human beings (and so communication) is excluded. Second, the model he chooses for the concept of "structure" is that of logical-mathematical structures. His restricted conception of "structure-governed activity" therefore largely rules out the social, political cultural forces operating in society. Third, Piaget's theory deals inadequately with the subjective and creative dimensions of language. His "epistemic subject" defined as the "center of the functional activity" (the above quote) remains an abstraction similar to that of Chomsky's "ideal subject."

At the first step, therefore, the present dissertation concludes that (a) because of the above mentioned limitations, which Piaget shares with Chomsky, the former's theory falls short of a full critique of the structuralist conception of language: (b) provided that those limitations are overcome, Piaget's theory offers a passage from the structuralist paradigm of "language as static sign" to a dynamic conception of language as developmental and praxis-based communication.

The second step of the present dissertation is an attempt to remedy the above shortcomings that are common to both Piaget and Chomsky. These are a lack of emphasis on their part, on the communicative, rule-governed, as well as

the subjective and creative aspects of language. Here certain insights from the neighboring disciplines of philosophy, psychology and linguistics are synthesized towards a critique of Piaget and Chomsky. The thinkers whose arguments are developed and reconstructed include Vygotsky, Wittgenstein, Toulmin, Searle and Merleau-Ponty, who all claim that, in order to understand human language, we must first consider it as goal-directed, communicative action.

Vygotsky, in contrast to Chomsky, concentrates upon actual use of language in its behavioral context, thus considering the problem of competence and performance as an undivided whole which cannot be analyzed as two separate phenomena. Like Piaget, he stresses the active role played by the subject in knowledge construction; the individuals are not merely "carriers" of symbols but rather they actively make symbols. However, in contrast to both Piaget and Chomsky, Vygotsky emphasizes the social character of language. The symbol functioning is regarded as the assimilation of the society by every individual and consequently is governed by the social experience materialized in language, in the shape of its function, i.e., "in the shape of the abilities and knowledge that can be formed and realized with the help of this tool."[7]

Toulmin argues that the structures of language are intelligible only in their functional context as expressed in their application to specific tasks:

> The grammatical structure of language . . . is the end-product, not of a unitary and specific

'native' capacity precisely isomorphic with our actual linguistic behavior, but rather of <u>more generalized capacities</u> which are expressed in behavior of that particular grammatical form only when set to work on the appropriate external tasks.[8]

By the "generalized" human capacities on which the structure of language is grounded, Toulmin means Wittgenstein's "form of life." According to Wittgenstein any expression owes its meaning to a rule-governed use or uses (language games); in isolation from any activity of this sort, the expression itself loses all linguistic status and becomes a mark or noise. On the other hand, the pattern of activities fixing the meaning (i.e., the uses) of an expression is simply an element or component in a larger constellation of activities, including other non-linguistic activities--forms of life. Toulmin sees the idea of "forms of life" not as describing universal native capacities but as a concept whose essential task is to "direct our attention . . . to those general patterns of human activity within which our collective conceptions come to be given their standard significance."[9] These standard uses or constellations are interpretations made determinate by acculturation, and therefore should be discovered within the context of each situation by specifying the goals, excuses or other significance of the action. Viewed so, human language becomes the consequence not of fixed innate capacities but of the typical communication between human beings "with all their inherited endowments and propensities--and the practical tasks on which they have occasion to exercise them."[10]

Searle, like Wittgenstein and Toulmin, considers language as rule-governed action: "A theory of language is a part of theory of action simply because speaking is a rule-governed behavior."[11] The elementary units of language are not the abstract sentence types independent of any behavioral content (Chomsky) but rather "speech acts." A speech act is a speaker's doing something in saying something. Unlike other forms of acting (sharpening a pencil or lighting a cigarette, for example) speech acts are rule-governed forms of behavior. According to speech act theory, linguistic competence becomes one with the actual performance or the actual use of language within the context of communication.[12] So the task of linguistics becomes the study of performance of speech acts, that is the study of what conditions are necessary and sufficient for a speech act to have been successfully and non-defectively performed in the utterance of a given sentence. Searle calls these conditions the constitutive rules.

The central theme common to the above discussion of Wittgenstein, Toulmin, Searle, and Vygotsky is the idea that the concept of language is to be subsumed under the broader concept of social action and the rule-governed essence of communication. Human language finds its expression only as a result of being put to particular types of uses within the context of communicative acts or speech acts. The constitutive rules governing these acts assume the central position in a theory of language thus substituting Piaget's concept

of language as "structure-governed action" and Chomsky's conception of fixed, timeless linguistic structures.

This underscoring of the rule or convention-bound essence of linguistic communication, however, must not lead one to ignore the subjective and creative dimensions of language. With the exception of Wittgenstein, this has been the case among the thinkers that have so far been discussed. As part of the second step, the present dissertation argues that the subjective and creative aspects of language are essential for a dynamic concept of language as function and as communication.

The subjective and creative essence of language is mainly explored by Merleau-Ponty's phenomenology. He describes what is involved in authentic communication "from within," i.e., in terms of the subjective experiences of the speaker's "sense giving intention" and the hearer's "taking up of this intention." Communication is always between two subjects with certain modes of being and with particular "worlds" at which their intentions are directed.[13] Merleau-Ponty thus aims at uncovering a primary process of language, from which the second order (i.e., empirical) expressions are derived: "Conventions are a late form of relationship between men; they presuppose an earlier means of communication, and language must be put back into this current of intercourse."[14] Further, Merleau-Ponty explores how this primary process exists within the context of a fully established, conventional system of symbols, that is, language,

by analyzing the speech act as a figure on the ground of language. Merleau-Ponty's approach is particularly significant in that it offers a potential for cohesion for objective and subjective approaches to language.

The linguistic turn was defined initially (p. 1) as the idea that language structures our understanding and gives rise to meaning. This the present author takes to be an important aspect of Chomsky as well as the ordinary language philosophers. Chomsky, however, rescued the concept of language from the narrow-minded view of behaviorism only to lead it into another narrow conception, that of language as static sign. The present study is an effort to reconstruct the attempts to overcome this narrow view by emphasizing the functions and intention of language. Instead of treating language as formal, static representations of knowledge, this researcher treats it as an intricate, complex and dynamic means of action that is used in highly variable ways for purposes of conveying and achieving meaning.

The following chapter discusses the historical background of the concept of language as static sign. Here Saussure's three main ideas, the concept of sign, la langue-la parole dichotomy, and synchrony--diachrony distinction are related both to Chomsky and Piaget. Chomsky's concept of competence is shown to be an extension of Saussure's ideas. Piaget's key concepts are presented as opposed to both Saussure and Chomsky's.

Thus the scene is set for a comparison between Chomsky's and Piaget's theories of language which is further developed in the second chapter. This chapter corresponds to the first step discussed above (pp. 3-5). Its aim is to show (a) the inadequacies of Chomsky's concept of language as static sign in favor of Piaget's more dynamic concept of language as function; (b) the limitations of Piaget's theory.

The third and the fourth chapters correspond to the second step (pp. 5-8 above). The third chapter is devoted to the evidence provided by philosophy of language towards a critique of Chomsky's and Piaget's theories. Here emphasis is on the objectivity, i.e., rule-governed essence of linguistic communication.

The fourth chapter discusses the evidence provided by phenomenology arguing for the necessity of the subjective and creative aspects of language for a dynamic view of linguistic communication.

The three main chapters of the dissertation, when taken as a whole, constitute a critique of the structuralist paradigm of language as static sign, arguing for a dynamic, developmental conception of language as function and communication.

FOOTNOTES

[1]G. Bergman, _Logic and Reality_, p. 177.

[2]The present use of the term should not be confused with the "Structuralist Linguistics" which Chomsky revolutionized.

[3]F. de Saussure, _Course in General Linguistics_, pp. 13-14.

[4]N. Chomsky, _Aspects of the Theory of Syntax_, sec.1, 2.

[5]N. Chomsky, _Language and Mind_, pp. 53, 58.

[6]J. Piaget, _Structuralism_, p. 71.

[7]A. A. Leontev, "Social and Natural in Semiotics," in Morton (1971) p. 128.

[8]S. Toulmin, _Human Understanding_, p. 465.

[9]S. Toulmin, "The Concept of 'Stage' in Psychological Development," in Mischel (1971) p. 45.

[10]S. Toulmin, _Human Understanding_, p. 467.

[11]J. Searle, _Speech Acts_, p. 17.

[12]Ibid.

[13]M. Merleau-Ponty, _Phenomenology of Perception_, p.183.

[14]Ibid., p. 182.

I

CHOMSKY AND THE STRUCTURALIST TRADITION
OF SAUSSURE: A STATIC CONCEPTION OF LANGUAGE

The present chapter attempts to show first that there is a close similarity between the structuralism of Saussure and Chomsky, and secondly, that a fundamental opposition exists between Saussure and Chomsky on the one hand and the structural-functional method of Piaget, on the other.   The former view postulates that "form" or "structure" can be considered and described independently of the "substance" in which it functions, thus confirming a formal, function-ignoring outlook on language. In contrast to this view, Piaget's method considers both function and structure in their developmental or historical context, thus constituting a first step towards bridging the gap between a conception of language as an abstraction removed from its actual func-tioning, and the view that language is to be considered within its function, that is, within the context of human purpose and communication.

First, it will be demonstrated that there is a close parallel between the three main ideas of Saussure which are responsible for a formal, abstract notion of language, and the key concepts of Chomsky's theory. These three ideas are,

13

as Saussure develops them in the <u>Course in General Linguis-</u><u>tics</u>, that of the "sign," <u>la langue</u>-<u>la parole</u> dichotomy, and the synchrony-diachrony distinction. Chomsky, like Saussure, treats the sign primarily as an entity which is combined with other kind according to complex rules. The Saussurean distinction between <u>langue</u> and <u>parole</u> is replaced by a similar distinction in Chomsky, between "linguistic competence" and "linguistic performance." Like Saussure, Chomsky also accepts the distinction between synchronic and diachronic perspectives, assuming the primacy of the former in linguistics. Thus despite Chomsky's claim to the contrary,[1] he does not provide an alternative to Saussure's structuralism, but an extension or expansion of it.

Secondly, it will be argued that both Saussure and Chomsky fail to include, in their account of language: a) the genetic or historical dimension, b) the extra-linguistic or communicative factors affecting linguistic meaning. The former point is the topic of chapter three, whereas the latter is examined in detail in chapter four. Here, these two claims will be discussed by way of introduction to the following chapters.

The point of departure for Saussure's theory of language is the "linguistic sign" which he identifies with the concept "word."[2] Saussure defines the linguistic sign as "the combination of a concept and an acoustic image."[3] The sound in which the word consists is the signified (<u>signifi</u>-<u>cant</u>), the concept is the signified (<u>signifié</u>). Saussure

regards the link between the signifier and the signified, the sound form and the content as strong as if they were the front and back of a sheet of paper,[4] suggesting thus that for every signifier there is one particular concept. Language, according to Saussure, is the sum total of such static forms each of which is locked up with a certain meaning. He thus does not take into consideration the relationship between the "literal" or dictionary meaning of words and the extra-linguistic contexts which determines these "literal" or dictionary meanings. The sum of the linguistic signs, according to Saussure, exist in the heads of all individuals of the linguistic community "almost like a dictionary of which identical copies have been distributed to each individual."[5] In relation to recent insights gained from the philosophy of language (i.e., Wittgenstein) we will argue below (and in the fourth chapter) that, contrary to Saussure's view, semantics should be regarded as a behavioral science in that no hard-and-fast line can be drawn between meaning of linguistic expressions and the meaning or significance we place on the non-linguistic actions and behavior patterns.

The second essential feature of Saussure's conception of language is the la langue-la parole distinction. Since there is no generally accepted English equivalent of these terms, the present dissertation adopts John Lyons' use of "language system" for langue, "language behavior" for parole.[6] Langue is, according to Saussure, the "system of

signs" or system of regularities which underlies the utter-
ances produced by speakers.[7] Parole, on the other hand, is
the "executive side" of the language which consist of "(1)
the combinations by which the speaker uses language code for
expressing his own thoughts; (2) the psychological mechan-
isms that allow him to exteriorize those combinations."[8]

The purpose of the langue-parole distinction, according
to Saussure, is to isolate the proper object of linguistics.
This is the language system, and not the language behavior
which the science of linguistics is concerned. Thus, analyz-
ing a language is not to describe speech acts but to deter-
mine the units and rules of combination which make up the
language system.[9]

The third important idea which underlies Saussure's
static conception of language is his distinction between
synchronic and diachronic perspectives and his insistence of
the priority of the former. The former approach according to
Saussure, is "concerned with the logical and psychological
relations that bind together coexisting terms and form a
system in the . . . mind."[10] The synchronic approach to lan-
guage, then, studies it in a particular state (i.e., static)
without reference to time, while the diachronic mode studies
its evolution in time. Saussure's argument for the primacy
of synchronic over diachronic perspective is based on the
assumption that historical change originates in parole, in
linguistic behavior, and not in langue: "The diachronic per-
spective deals with phenomena which are unrelated to the

system, although they do condition them [the system, i.e., langue]."[11]

These three main aspects of Saussure's conception of language reappear (albeit in modified form) in Noam Chomsky's theory of language. Chomsky, like Saussure, takes linguistics in its most proper sense to be concerned with "language system" rather than "language behavior" and language seen synchronically or statically rather than diachronically or as it has developed through time. Thus, Chomsky states: "The logical priority of the study of langue . . . seems quite inescapable."[12] Chomsky, however, rejects Saussure's conception of language as a "system of signs" and redefines language as a set of sentence types. Saussure, he writes:

> regards langue as basically a store of signs with their grammatical properties, that is, a store of word-like elements, fixed phrases, and, perhaps, certain limited phrase types. He was thus quite unable to come to grips with the recursive processes underlying sentence formation, and he appears to regard sentence formation as a matter of parole rather than langue, of free voluntary creation rather than systematic rule.[13]

Saussure's failure to distinguish between sentences themselves as grammatical forms and the utterances by which sentences are realized in speech led him to exclude sentence formation from the linguistic system and view language merely a system of signs. It is this aspect that Chomsky stresses in replacing Saussure's langue-parole distinction with his own concepts of competence and performance. The "linguistic competence" which is the main concern of linguis-

speaker-hearer's mind. The native speakers have in their
minds, and presumably stored in their brains, sets of rules
of the kind that linguists formulate in their generative
models of the language system.[16]

Finally, Chomsky's redefinition of the goal of linguis-
tics as that of exploring differences between the "grammati-
cal" and the "ungrammatical" is not actually too far away
from Saussure's view that the goal of linguistics is to dis-
cover the differences between the units within the system of
langue. Thus Chomsky writes:

> The fundamental aim in the linguistic analysis of
> language L is to separate the grammatical sequen-
> ces which are the sentences of L from the ungram-
> matical sequences which are not sentences of L and
> to study the structure of the grammatical sequen-
> ces.[17]

Chomsky, on this point, seems to be following Saus-
sure's dictum that "in language there are only differences
without positive terms."[18] Rather than discovering the dif-
ferences in general, as Saussure does, Chomsky is placing
the difference finding to sentence level, but the task of
linguistics remains, for both that of difference finding at
the level of langue.

We have thus far stated the parallels between Saus-
sure's and Chomsky's views in order to emphasize the fact
that their conception of language, conceived as abstract
formal system existing in the brain of every member of com-
munity (Saussure) or innately prescribed in humans (Chomsky)
has been largely responsible for deteaching the object of
inquiry (langue) from the historical and functional aspects

of language. To anticipate the arguments developed against this view in the later chapters, we will now dwell on the implications of such a notion of language and some of the problems it poses.

First, Saussure's distinction between synchronic and diachronic linguistic phenomena creates difficulties when considered within the context of Chomsky's "revision" of langue in terms of the competence of the ideal speaker-hearer; langue has a long history, whereas individual speaker-hearers (even with unlimited memory spans) have access to only its manifestations during short life spans. How, then, is the residual of linguistic change to be repre-sented in the model of linguistic competence?

Let us take, for example, English morphemes of Latin descent such as ex and dis.[19] Novel constructions in which such morphemes are used productively--as for instance the expression "to disambiguate a sentence"--may actually require a different competence than that of linguistic com-petence and diachronic linguistic information far beyond the intuition of the competent but illiterate speaker of English. Some native speakers may even find no more resem-blance between "distrust" and "discount" than between "dis-count" and "disk." Furthermore, it is obvious that informa-tion concerning the prefix "dis" in English will exceed any linguistic competence that can be acquired from exposure to plain synchronic English. We are thus in a dilemma of either omitting necessary diachronic information in our description

of _langue_ or adding a somewhat mystical "racial memory" to the innate capacity of the ideal speaker-hearer!

Secondly, the structuralism of Saussure and Chomsky treat linguistic meaning as a result only of linguistic elements within the system of _langue_ while excluding extra-linguistic factors and the language use in actual communication. This approach creates the impression that, as Hörmann puts it: "First there are signs, secondly they carry meaning and thirdly they can even be used."[20] Thus Chomsky, with his overemphasis on grammar, explains the meaning of an ordinary sentence according to the formulation that syntactic descriptions are mapped by the hearer upon the linguistic input and thus assume their meaning:

> A system of propositions expressing the meaning of a sentence is produced in the mind as the sentence is realized as a physical signal, the two being related by certain formal operations that, in current terminology, we may call grammatical transformations.[21]

Saussure expresses the idea that linguistic meaning is a result only of intralinguistic relations when he says that the linguistic unit is a _value_.[22] By saying that an object--for example, a coin--is a value, one is affirming that its exchange capacity is solely determined by fixed relationships existing between itself and objects of the same nature (the exchange rate between the coin and the other monetary units of other countries). Similarly, the signifying power of a linguistic unit, according to Saussure, is merely determined by the relationships uniting it with other signs of the language.

As it will be discussed in detail in the fourth chapter, the most forceful argument against the above conception of linguistic meaning is put forth by Wittgenstein who affirms that the meaning of linguistic units cannot be explained solely by its relations to other linguistic units. This is so, he claims, because no clear-cut line can be drawn separating the meaning of linguistic behavior from the meaning or significance we place on the nonlinguistic actions and behavior patterns. Wittgenstein argued against his earlier associates such as Russell and Moore, who analyzed the meaning of linguistic expressions ("number," "right," "probable," etc.) by finding other equivalents or synonymous expressions which might be stated either in formal terms (i.e., Principia Mathematica) or else informally, using other everyday words. To do this alone was, in Wittgenstein's eyes, to remain trapped within the linguistic realm, and did nothing to make the relations of language to other things any less mysterious. When applied to Saussure's view, this criticism maintains that the value of a drahma or peso cannot be explained merely by showing that they can be exchanged for dollars or pounds: it is knowing how money functions in substantive transactions that counts. Similarly a linguistic unit according to Wittgenstein, owes its meaning to having been given the use or uses in the context of linguistic activities ("language-games"). Language games, in turn, however, must be understood in their own broader contexts; and for those contexts Wittgenstein introduced the

phrase "forms of life"; the pattern of linguistic activities fixing the meaning of a word is simply an element or component in a larger group of activities. A language game derives its effective point from being geared into other non-linguistic activities. In sum, then, contrary to Saussure and Chomsky, we shall understand the meaning of a linguistic unit aright only if we see it in the context, first of the language games by which the word is put to use, and then, of the forms of life (which are only partly linguistic) from which these language games derive their significance.

Third, to anticipate the arguments developed in the following chapter, we will criticize the structuralist postulate of the existence of the linguistic forms (either as Saussurean system of signs or as Chomsky's grammatical structure) which all native language users "know." This knowledge of the "system" (Saussure) or of "structure" (Chomsky) exists independently of its functioning in actual communication situations thus narrowly defining the term "functional" merely as the way in which the elements of the "system" are put together. Hence Chomsky states:

> There may be a 'functional explanation' for the organization of language with grammatical transformations, which would be a well-designed system corresponding to certain organization of short and long-term memory, for example.[23]

Contrary to this view, Piaget redefines the relationship that is traditionally assumed to exist between structure and function. He argues that the structure and function

are necessarily interdependent and therefore must be considered simultaneously. The traditionally accepted distinction between function and structure to which Piaget opposes is represented by Titchener who, using an analogy from biology, initially proposed a three-fold distinction:

> We may inquire into the structure of an organism, without regard to function--by analysis determining its component parts, and by synthesis exhibiting the mode of its formation from the parts. Or we may inquire into the function of the various structures which our analysis has revealed, and into the manner of their interrelation as functional organs. Or, again, we may inquire into the changes of form and function that accompany the persistence of the organism in time, the phenomena of growth and decay. Biology, the science of living things, comprises the three mutually interdependent sciences of morphology, physiology and ontogeny.[24]

Revolutionizing the above made distinction between functional and structural approaches, Piaget regards all three aspects of Titchener's outline as interdependent: his theory is at once structural, functional and genetic. That is, contrary to Saussure and Chomsky, diachrony or genesis is not characterized any longer as sequence of discrete, static synchronic systems, but that diachrony is dependent upon synchrony for its movements and that synchrony carries the possibility of diachronic movement within it: "Every structure [is] the resultant of a genesis and every genesis [is] the transition from a more to a less elementary (or more complex) structure."[25] Being thus mutually bound up with each other, genesis emanates from a structure which carries the genesis to start with. For example, for a child to move from one stage at which he can see and touch a con-

crete object (i.e., a cat) to a stage at which he can sym-
bolically represent the object with the name "cat" involves
both the movement from one structure to another, and the
presence of the possibility of that movement within the
first structure. (See chapter three.) Thus, Piaget writes:
"Must the 'symbolic function' be thought of as permanent [as
in Saussure or Chomsky]? Would it not be legitimate to think
of what Saussure called the 'sign' as having evolved from
what he called the 'symbol'?"[26]

Moreover, contrary to Saussure's and Chomsky's concep-
tion of "function" as merely the way in which the elements
of an abstract universal structure are put together,
Piaget's concept of function includes the action ("praxis")
of the language user. Language (as part of "symbolic func-
tioning") is shaped by the subject's activities and that the
language-using subject actively participates in the trans-
formational processes. To quote Piaget himself:

> Praxis or action is not some sort of movement but
> rather a system of coordinated movements function-
> ing for a result or an intention. To take but one
> example, the displacement of an arm which inter-
> feres in the act of putting on or of removing a
> hat is not praxis; a praxis consists of an action
> in its totality and not of a partial movement
> within this action. Praxis is an acquired as
> opposed to a reflex coordination; this acquisition
> can derive not only from the child's experience or
> education . . . but also eventually from the
> internal operations of equilibrium which express a
> regulation or a stabilization acquired from coord-
> ination.[27]

In sum, Piaget's dialectic theory of genetic structur-
alism helps us situate the concept of language as part of a
total system (i.e., symbolic functioning) and as part of the

horizon of man's being constructed (rather than innate) from the most elementary level of activities through interaction with the environment. Such a shift in interpretation, first of all, represents (contrary to Saussure and Chomsky) an emphasis on the language users and their activities. If it is accepted as Piaget claims, that function and structure are interdependent, then it follows that an adequate explanation of the language system must include a theory of symbolic functioning, not necessarily, however, the one implied in Piaget's theory. This last point is elaborated in chapters three and four.

Secondly, if Piaget's argument for a dialectical conception of the relationship between genesis and structure is accepted, then it follows that an adequate theory of language must include a developmental perspective, that is, it must give an account of the essence of language as explored in the early stages of human life. If so, in relation to the acquisition of language, Chomsky's claim that the nature of language and the process of language acquisition are such that they are inexplicable other than on the assumption that we possess a unitary human language capacity which is either there or not from the start, must be abandoned. As it will be elaborated in the following chapter, Piaget demonstrates that the structures (linguistic or not) are not fixed innate forms but rather emerge through continuous transformational activities of the child. However, such a developmental per-

spective need not necessarily be the one Piaget's theory implies, but must go beyond it.

The present chapter underscored the resemblance in Saussure's and Chomsky's views of language as a formal, static system and their implications for theories of knowledge and meaning. Thus, it is indicated that the structuralism of Saussure and Chomsky ignores the importance of the functional and genetic aspects of language both in the sense of communication and in the sense of the developmental activities of the language user. The argument for the necessity of the communicative aspects for an adequate conception of language will be developed in chapters four and five, while the following chapter will concentrate on Piaget's theory of symbolic functioning and its consequences in terms of Chomsky's theory of language acquisition.

FOOTNOTES

¹ N. Chomsky, <u>Current Issues in Linguistic Theory</u>, p. 23.

² Although Saussure makes a distinction between "words" and "linguistic sign," they correspond, in Saussure, to each other in the sense in which variants like "do" and "does" are different words. He is even prepared, for convenience, to speak of "words" in preference to linguistic sign (F. de Saussure, <u>Course in General Linguistics</u>, pp. 110-111).

³ F. de Saussure, <u>Course in General Linguistics</u>, p.67.

⁴ Ibid., p. 113.

⁵ Ibid., p. 19.

⁶ J. Lyons, "Structuralism and Linguistics" in D. Robey (ed.) <u>Structuralism: An Introduction</u>, p. 13.

⁷ F. de Saussure, <u>Course in General Linguistics</u>, pp. 13-14.

⁸ Ibid., p. 14.

⁹ Ibid., p. 20.

¹⁰ Ibid., pp. 99-100.

¹¹ Ibid., p. 85.

¹² N. Chomsky, "The Logical Basis of Linguistic Theory," in <u>Proceedings of the Ninth International Congress of Linguistics</u>, p. 916.

¹³ N. Chomsky, <u>Current Issues in Linguistics Theory</u>, p. 23.

¹⁴ N. Chomsky, <u>Aspects of the Theory of Syntax</u>, p. 4.

¹⁵ Ibid., p. 3.

¹⁶ N. Chomsky, <u>Syntactic Structures</u>, p. 13.

¹⁷ Ibid., p. 25.

¹⁸ F. de Saussure, <u>Course in General Linguistics</u>, P. 120.

[19] R. Rommetveit, _Words, Meanings, and Messages_, p.31.

[20] H. Hörmann, _To Mean--To Understand:Problems of Psychological Semantics_, p. 8.

[21] N. Chomsky, _Language and Mind_, p. 25.

[22] F. de Saussure, _Course in General Linguistics_, p. 114 ff.

[23] N. Chomsky, _Language and Responsibility_, p. 86; For Saussure, see J. Culler, Structuralist Poetics, p. 10.

[24] E. G. Titchener, "The Postulates of Structural Psychology," in _Philosophical Review_, 1, 9, 7, p. 449, quoted by K. F. Riegel, _Psychology of Development and History_, p. 110.

[25] J. Piaget, _The Principles of Genetic Epistemology_, p. 12.

[26] J. Piaget, _Structuralism_, pp. 114-115.

[27] J. Piaget, "Child Praxis" in Piaget, _The Child and Reality: Problems of Genetic Psychology_, p. 63.

II

TOWARDS A DYNAMIC CONCEPTION OF LANGUAGE:

PIAGET'S CRITIQUE OF CHOMSKY

The previous section emphasized Chomsky's usage of grammar (that is, syntax) as the basis for a theory of language. His notion of competence encompasses grammar as well as the ideal speaker-hearer's intuitive knowledge of the rules of this grammar. Grammar, when "internalized" by a person who has the command of the language, is said to be a part of that person's competence. As such, competence is presented as a unitary capacity that is either present or totally absent in a person. The child acquires this knowledge called competence through an innate mechanism ("acquisition device"--AD) which is

> fixed in advance as a disposition of the mind, and
> the function of experience is to cause this gen-
> eral schematic structure to be realized and more
> fully differentiated.[1]

The implications of Chomsky's claim that competence is the only basis for meaning and understanding will be critically examined in the following chapter. The present chapter argues against Chomsky's thesis that linguistic competence, as <u>the</u> unitary capacity detached from other human abilities is responsible for the acquisition of language.

First, Chomsky's argument for the concept of competence as the only basis for language acquisition is reconstructed.

Secondly, it is argued that if the biological basis for linguistic structures is to be taken seriously, one cannot reject (as Chomsky does) examining human onto and phylogenesis in order to understand the nature of these structures. This point, which is Stephan Toulmin's major objection to Chomsky, is then taken as a starting point to reconstruct Piaget's argument for genetic epistemology and extend it to linguistic structures. Here, Piaget's genetic theory of symbolic functioning is considered as an alternative to Chomsky's theory of language acquisition. That is, it is argued that language acquisition, when viewed from a developmental perspective, becomes not a result of a separate, all or nothing type of language capacity disconnected from other human abilities, but rather a consequence of the child's earliest activities interconnected with other cognitive abilities.

Finally, both Piaget's and Chomsky's conceptions of the acquisition of language are critically evaluated in terms of their common limitations. These limitations center around the concepts of subject, structure, and the role of the cultural-historical factors in the development of language. Piaget's interactionism, it is emphasized, offers a greater potential for overcoming those limitations than Chomsky's innatist theory.

Chomsky proposes the language acquisition device (AD or LAD) with which every human being is innately equipped, and

which is independent of the development of other cognitive capacities:

> Consider an acquisition model AM that uses linguistic data to discover the grammar of the language to which this data pertains:
>
> Linguistic data ⟶ AM ⟶ Grammar
>
> Just how the device AM selects a grammar will be determined by its internal structure, by the methods of analysis available to it, and the initial constraints that it imposes on any possible grammar. If we are given information about the pairing of linguistic data and grammars, we may try to determine the nature of the device AM. . . . We might describe [the generativist attempt] as concerned with the internal structure of the device AM, with the innate conception "human language" that makes language acquisition possible.[2]

Thus AM (acquisition model) is a representation of what actually takes place when a child acquires a language by means of the acquisition device. The "device" or "black box" has as its input the actual speech and its output the grammar of that language the child is born into.

Chomsky came to postulate the innate structures for the acquisition device to state an alternative to the empiricist account of language learning (in particular, the behaviorism of B. F. Skinner). To reformulate the Chomskian argument in terms of empiricist-rationalist controversy, we might use the model in the above quote, first in general terms, with no specific reference to linguistic competence:

> input ⟶ AM ⟶ output

AM is a device capable of receiving input and producing output. We may regard the human mind as an AM. The input is

the sense-data and the output is such intellectual activities as the ability to operate with concepts like cause-effect, time, object, etc. The question empiricism and rationalism want to answer is: what must this AM, the mind, be like in order for an input of this kind to be transformed into an output of that kind? Empiricism and rationalism would answer this question differently. A Humean empiricist would ascribe to AM the following: (a) the ability to receive sense data; (b) the ability to associate sense data; (c) to generalize inductively the observed data. In the case of behaviorism, a strong form of empiricism combined with physicalism and determinism,[3] the AM is reduced to a level of minimum intervention, leading to the doctrine that human behavior is totally determined by the external conditions, without differentiating human behavior from animal and machine behavior. Similarly, the acquisition of language was seen, according to behaviorism, as the reinforcement of the child's responses to others and was determined externally by what others do to him.

Skinner, the leading proponent of behaviorism, asserts in his <u>Verbal Behavior</u>, that a child's linguistic behavior pattern could be set up by appropriate conditioning processes:

> A child is taught the names of objects, colors, and so on when some generalized reinforcement (for example, the approval carried by the verbal stimulus 'Right!') is made contingent upon a response which bears an appropriate relation to a current stimulus.[4]

According to Skinner, therefore, the concepts like "naming," "describing," "asserting," "referring," etc., are only "empty mentalist verbiage," and do not result in a more adequate description of language behavior than can be obtained simply describing stimuli, responses, and reinforcement contingencies; that is, statements of relevant inter- and extra-verbal associations plus the conditions of their acquisition and maintenance are descriptively sufficient. He defines the paradigm of language learning (a "tact") as simply a three-term contingency between, for instance, a doll, saying "Doll" and the generalized reinforcement for saying "Doll." In a tact the response "refers to," "mentions," "denotes" something, or "communicates" a condition of the stimulus.[5]

In his review of Skinner's Verbal Behavior, Chomsky takes the first step towards formulating the language acquisition device. In criticizing Skinner's restriction of learning merely to external factors without consideration of the inner structure of human mind, and in opposing the view that the child understands new sentences by comparing them with previously learned patterns, Chomsky advances the theory that the ability to respond to verbal stimuli "are genetically determined and mature without learning":

> The fact that all normal children acquire comparable grammars of great complexity with remarkable rapidity suggests that human beings are somehow specially designed to do this.[6]

In a later paper, Chomsky proposes his idea of "a hypothetical language-learning device" which includes "grammar

as linguistic theory."[7] Moreover, the initial structure
that the child brings into language acquisition, has now
been formulated in terms of rationalist postulation of
innate ideas:

> By attributing such principles [i.e., universal
> grammar] to the mind, as an innate property, it
> becomes possible to account for the quite obvious
> fact that the speaker of a language knows a great
> deal that he has not learned.[8]

Now, following the rationalist principles of the
"Cartesian linguistics," Chomsky makes two additional
claims: (1) that a universal grammar exists; and (2) that
deep structures are common to <u>all</u> languages:

> Universal grammar might be defined as the study of
> the conditions that must be met by the grammars of
> all human languages . . . so defined, universal
> grammar is nothing other than the theory of lan-
> guage structure.[9]

To the universal grammar, Chomsky includes universal
phonetics and universal semantics, but for him the syntactic
universals, that is the universal nature of deep structures
of syntax, remain the most important of the three.[10] The
assumption of a universal grammar (i.e., syntax) restricts
the class of possible human languages to a very special sub-
class of conceivable languages:

> These assumptions pertain to the language acquisi-
> tion device AM . . . that is, that they form one
> part of the schematism that the child brings to
> the problem of language learning. That this
> schematism must be quite elaborate and highly
> restrictive seems fairly obvious. If it were not,
> language acquisition, within the empirically known
> limits of time, access and variability, would be
> an impenetrable mystery.[11]

In sum, the language acquisition device has as its input the actual speech that the child is exposed to in his environment. The AM, the "black box" contains an innate structure, which includes all the principles stated above. As its output, the acquisition device has the internalization of those principles which is not the sum total of utterances the speaker makes (performance) but the speaker's knowledge (competence) of these rules. Only in ideal circumstances--e.g., where there are no slips of the tongue, no lapses in memory, no outside distractions--will performance directly reflect competence. To put it briefly, all that which is connected with acquisition, using, understanding language, according to Chomsky, is innate. As one of Chomsky's followers sums it up: "Anything which . . . is found to be part of the theory of language is eo ipso facto part of the language acquisition device and hence part of the child's native language-apparatus."[12]

This reconstruction of Chomsky's rationalist theory of language acquisition--however synoptic--enables us to determine what he means by the concept of "innate structure" and the role it plays in the acquisition of language. The original question posed in terms of both empiricism and rationalism (p. 33 above) was: "What must this AM, the mind, be like in order for an input of this kind to be transformed into an output of that kind?" Chomsky's answer has been that the nature of these rules and the knowledge involved in understanding new sentences is such that, even in principle,

they cannot have been internalized through inductivist gen-
eralization alone. Therefore, according to Chomsky, AM must
be equipped with a biological, species-specific, innate
capacity for absorbing language. Chomsky's detailed descrip-
tion concerning why understanding sentences involves ascrib-
ing to them grammatical features which are not observable
since they are part of the deep structure is not directly
relevant here.[13] What should be emphasized is the following
major weakness in Chomsky's argument: even if one grants
that he is right in his claim concerning the inadequacy of
the empiricist theories of language, this fact in itself
does not justify his conclusion that the innatist conception
is _the_ _only_ acceptable one when it comes to the analysis of
the problem of language acquisition.[14]

This flaw in Chomsky's argument is emphasized by
Goodman, who indicates that the lack of an alternative
theory to behaviorism does not prove that the theory offered
as an alternative (i.e., Chomsky's innatist concept) is in
any way substantiated.[15] Moreover, one might add to this
that there exists another possibility: Piaget's implied
theory of language acquisition does provide an alternative
to empiricism thus rendering Chomsky's conclusion even more
dubious.

What follows next is an attempt to develop Piaget's
argument for his "genetic epistemology" in terms of a theory
of language. The epistemological dilemma created by
Chomsky's postulation of built-in biological structures for

the language acquisition device (AM) is the following: if AM
is "fixed in advance as a disposition of the mind" then
there is no need to look to human onto and phylogeny for
clues as to the nature of these structures. They are simply
there (in normal human beings) out of biological neces-
sity.[16] But if any argument for the biological basis of
language acquisition is to be taken seriously (Toulmin's and
Piaget's point), then one must look to human onto and phy-
logeny for hints as to the nature of these structures. By
following Toulmin's objection to Chomsky on this point, a
case will be made to extend Piaget's argument for genetic
epistemology to a theory of language acquisition.

Toulmin, in his paper "Brain and Language", and in his
book Human Understanding, puts forth a criticism of
Chomsky's theory which is equal in its destructiveness to
that of Chomsky's famous review of Skinner. Toulmin argues
that if the generativist commitment to some biological
apparatus is to be taken seriously, one must account for the
human linguistic competence not as a result of a single
unitary capacity (as Chomsky does), but as a unique pattern
of interrelated capacities (in the plural), all of whose
components are present in the required constellation only in
the case of human beings.[17] The thrust of Toulmin's argu-
ment is to underlie the narrowness of Chomsky's conception
of language: namely, that it excludes the inquiry into what
people do with their language. If a theory of language is to
meet some biological criteria, Toulmin argues, then both the

origins and antecedents of human language must be taken into consideration. Hence, one must interpret the language capacity

> as something which developed in the hominid pre-
> cursors of modern man by the gradual accumulation
> of physiological and behavioral changes which were
> advantageous, in part for "protolinguistic"
> reasons, in part for nonlinguistic reasons. The
> physiological changes which were progressively
> selected in this way were associated, behavioral-
> ly, first with the emergence of a partial language
> function, and eventually with a full language
> function . . . . We can even state this view only
> if we assume that there can be such a thing as a
> "partial language function," i.e., if the language
> capacity is not an absolute unitary thing, charac-
> terized by an all-or-nothing grasp of deep struc-
> ture, but rather something which can be developed
> gradually, and bit by bit.[18]

This is Toulmin's biologically based argument. In the following chapter, Toulmin's attempt to build the inter-related "linguistic capacities" upon Wittgenstein's concept of "forms of life" will be examined. Here, before consider-ing Piaget's theory, a final argument (philosophically based) by Toulmin will be presented in defense of Piaget's epistemology.

In a relatively recent book edited by T. Mischel, Cognitive Development and Epistemology, Piaget's epistemo-logical point that an understanding of the origins and development of knowledge (both phylo- and-ontogenetically) is crucial for an understanding of knowledge itself is crit-icized by philosophers such as Hamlyn and Malcolm, whereas it is defended by Toulmin and Taylor. Hamlyn maintains that Piaget's genetic epistemology does not maintain a strict

distinction between what philosophy and psychology ought to

say about knowledge and hence is logically incoherent:

> Piaget's theory is a blend . . . of the empirical
> and the philosophical. While empirical investiga-
> tions may throw up suggestions for the philosopher
> and vice versa . . . a theory that rests directly
> upon both empirical and philosophical considera-
> tions must have a degree of incoherence.[19]

This point is based on the supposition that

> philosophical questions about the nature of a
> certain form of understanding and about its con-
> ditions and criteria are utterly divorced from the
> psychological conditions in which such under-
> standing develops in individuals.[20]

Hamlyn supports his point with the argument that we may

understand what it is to have grasped a concept, but without

necessarily understanding   what   acquiring   the   concept

involves. By using the analogy of "journeying" and "arriv-

ing" he asks: "Does the knowledge of the criteria for recog-

nizing when a journey is complete entail studying the course

of the journey?" His answer is: "I may know what it is to

have arrived somewhere without any knowledge of the actual

journey."[21]

A possible Piagetian answer to such a criticism is

given by Toulmin who rejects Hamlyn's supposition that the

analysis of concepts must be divorced from the study of

their genesis. Toulmin argues that one can hope to keep con-

ceptual and empirical questions about knowledge and learning

entirely separate only if one could say, for example, that

when a man is acquiring a concept, one has the same, exact,

ultimate criterion for saying "Now he has grasped the con-

cept." We can then say what exactly it is to have a concept in advance of all questions about "what exactly is involved in acquiring it." This attempt, however, must fail to the extent that the criterion by which <u>what we count as</u> "knowing," "understanding," "recognizing," etc., varies throughout human phylo- and-ontogenetic development.[22]

Toulmin, however, does not explore how "what we count as" knowing and understanding change through the stages of human development and how a theory dealing with genetic development is relevant to epistemological analysis. It is Piaget who explores how what we count as knowing or understanding depends upon what and how the child relates his actions to his environment at different stages of development. In Piaget's theory, linguistic and other concepts of adult thinking present themselves as determinate patterns of achieved skills in the child and the meaning of these concepts cannot be understood and characterized without reference to this pattern since, as it will be shown, the "conceptual" knowledge is simply a highly developed form of activity which presupposes, and is based upon other less developed forms of activities.

Being supported by the above arguments by Toulmin, we can now turn to Piaget's genetic epistemology and attempt to extend it to language acquisition.

Piaget has created a new discipline called "genetic epistemology" for the purpose of studying the origins and development of current state of human knowledge. As an

independent discipline it has the goal of reaching back to the very origins of knowledge in order to determine "by what means . . . the human mind goes from one state of less sufficient knowledge to a state of higher knowledge."[23] Stated as such, however, the task of genetic epistemology seems to be one that is difficult, if not impossible, since, in order to achieve it, the origins of knowledge whose fully developed form is found in the most current theories must be traced in the history of each individual science. Only then, the origins of our scientific concepts can be found, presumably, in the pre-history of each particular science. But obviously, we have no access to the history of human thinking in pre-historic man. For this reason, Piaget argues, we can study this genesis by way of analogy in children, who may be said to recapitulate this pre-historic development of concepts. Thus, the "fundamental hypothesis" of genetic epistemology is that "there is a parallelism between the progress made in the logical and rational organization of knowledge and the corresponding formative psychological processes."[24]

In the above sense, according to Piaget, "the study of the psychogenesis of knowledge is an indispensable part of epistemological analysis."[25] Piaget thus considers himself as an epistemologist primarily and a psychologist secondarily:

> If we have concentrated on the beginnings of knowledge in the fields of child psychology and biology, it is not because we attribute to them an almost exclusive significance but simply that on

the whole they seem to have escaped the notice of epistemologists.[26]

The psychology which is related to genetic epistemology is not, however, the "child psychology" which deals with the child for his own sake without considering his eventual development into an adult, but rather is the "genetic psychology" which aims to explain the adult ways of thinking by "their mode of formation; that is, by their development in the child."[27] Seen this way, genetic psychology describes the successive stages of the formation of thinking and the how and why of the child's passage from one stage into another.

The method of Piaget's genetic epistemology is structuralism: it consists of identifying the characteristics of "wholes" or "structures" regarded as something more than a simple aggregation of antecedent elements,[28] and of analyzing "the transition from a more to a less elementary (or more complex) structure."[29]

The most elementary assumptions underlying the structuralist method are common to both Piaget and Chomsky. First of all, the concept of "structure" is not a simple "model" or "computing instrument" referring simply to the observer's logic (as it has been assumed by many social scientists). Rather, it is assumed to be real or "inherent to the reality under study."[30] Secondly, structures do not belong to the conscious, observable level of appearance in human behavior but rather are assumed to exist at a "deeper," nonconscious level (that is, not "unconscious" in the Freudian sense of

the term). According to these two premises structures are assumed to exist as one dimension among the various dimensions of both social and natural reality. However, the structural dimension is assumed to hold a privileged position: it is held that the structure is the primary component of human knowledge and experience.[31]

The fundamental assumption which makes Piaget's structuralism different from that of Chomsky's is the former's "constructivist" thesis that there is a necessary union between the idea of a structure and the idea of the construction of formation of a structure. At the closing section of his book Structuralism, Piaget summarizes this idea with the slogan: "There is no structure apart from construction."[32] Elsewhere in the same book it is formulated as "the idea of structure as a system of transformations becomes continuous with the of construction as a continual formation."[33]

This fundamental idea of "genetic" or "constructivist" structuralism was examined in the previous chapter (pp. 24-27 above) in relation to Piaget's dialectic conception of structure and function relationship. It was also emphasized in the above arguments by Toulmin. The first argument by Toulmin repeats the constructivist thesis in terms of the postulate of a "partial language function" where the language capacity is not assumed to be an absolute unitary thing characterized by an all-or-nothing grasp of deep

structure, but as something which can be developed (i.e., constructed) gradually and bit by bit (pp. 38-39 above).

The second argument by Toulmin expresses the same idea in terms of the relationship between epistemology and psychology, namely, in terms of whether or not a strict distinction can be maintained as to what epistemologists and psychologists ought to say about knowledge. As we have seen, Toulmin's and Piaget's answer to this question is a negative one (pp. 40-41 above).

Finally, we can examine the implications of Piaget's constructivist-genetic thesis in terms of the language acquisition device which was put forth by Chomsky (p. 32 above). The question that was put in terms of the empiricist-rationalist controversy was: what must the AM, the mind, be like in order for an input of speech to be transformed into an output of the internalized rules of language (p. 32 above)? Piaget could not but agree with Chomsky that such an input is far too impoverished to produce the rules if the device were to be constructed according to empiricist, associationist hypothesis. Piaget, in relation to "traditional empiricism" writes:

> The two central problems which to my mind dominate all questions of cognitive development are (1) to determine whether knowledge consists only in copying or imitating reality, or whether to understand reality it is necessary to invent the structures which enable us to assimilate reality, and consequently (2) to determine whether the actions performed by the subject on reality consists simply in construction of appropriate images and adequate language, or whether the subject's actions and, later, his operations transform reality and modify objects.[34]

Piaget, therefore, like Chomsky, defends the thesis that knowledge does not consist "only in copying and imitating reality." The AM, the mind, in the model sketched above, cannot consist of what the empiricists attribute to it (p. 33 above). Piaget disagrees, however, with Chomsky. He argues that Chomsky, in revolting against the empiricist tradition falls into an extreme rationalism according to which the innateness of human reason is the initial assumption.[35] Thus, the Chomskian claim that the language acquisition device contains, as innate structure, each of the principles stated within the theory of language (p. 36 above) cannot be considered as the only alternative to empiricist theory. The constructivist-genetic hypothesis provides us with a "relational" view where knowledge is not defined by the innately given structures, but rather defined in terms of structures that are constructed through interaction with the environment.

In terms of the acquisition of language, then, Piaget's view is that the linguistic structures as a system of verbal signs are not the result of an innate acquisition device but rather constructed as a "particular case" within the general context of the structures called "semiotic functioning."[36] The structures which belong to semiotic functioning are imitation, interiorized imitation, deferred imitation, symbolic play and language itself.[37]

It should be indicated at this point that our reconstruction of Piaget's argument for genetic epistemology in

terms of a theory of language closely follows Toulmin's main criticism of Chomsky. Toulmin, in his biologically induced argument (quote on p. 39 above), postulated a "partial language function" in which the language capacity cannot be assumed to be an absolute unitary thing that is characterized by an all-or-nothing intuition of innate structure, but is something which develops gradually. Piaget's argument is similar: language does not appear ex nihilo as an all-or-nothing structure, nor simply from earlier vocalizations (contra behaviorism) but rather as a partial function of a lengthier complex of processes which include the entire cognitive development. It has the same roots, and in the beginning the same function as symbolic play, deferred imitation, etc.

Piaget differs from Toulmin (who leaves the question of a specific biological criteria unanswered) by postulating a certain biological criterion, which is called "adaptation." Adaptation, a predisposition of all living systems is responsible for all mental development including that of language. This principle, Piaget argues, renders Chomsky's innatist hypothesis unnecessary since it is sufficient for both the transition made from "partial" structures into "complete" ones and the relatively stable or unchanging character of the latter type of structures.[38] Adaptation has two "functional invariants" through which the child acts upon the environment: assimilation and accommodation. Assimilation is the process which incorporates objects or events

into the child's actions and existing knowledge. This mechanism operates to the extent that the environmental data is consistent with the child's existing structure. If no element of existing structure (knowledge) is modified, then assimilation maintains primacy over accommodation, as best exemplified in children's fantasy and play.[39]

Accommodation is the process by which the child adopts, modifies, or applies his knowledge (schemes) to the particular environmental reality. If accommodation maintains primacy over assimilation, then existing knowledge is adapted without utilization of the new knowledge as exemplified in imitation.[40]

Linguistic and other mental structures, according to Piaget, through the process of equilibration between assimilation and accommodation, develop from the child's earliest sensorimotor activities and their internalization. "Equilibration" in this sense is a process of self-regulation which maintains the balance between assimilation and accommodation. It does not mean a "balance of forces" in the Gestaltist sense,[41] nor should it be confused with Festinger's concept of "cognitive dissonance" where an awareness of disequilibrium is perceived as similar to the awareness of a drive. The concept of equilibration should rather be understood in terms of "knower-symbolization-known" relationship. Kessen, commenting on this concept, interprets it as a function of the subject's cognition which could be explained in terms of the "principle of least

effort."[42] According to this principle, Kessen maintains, the child builds compromise structures which maximize fast, simple, access to information; here "gain" and "loss" of information determines the selection of a particular problem solution. Kessen gives the following example:

> The subject (as infant) looks neither at what is too familiar because he is in a way surfeited with it nor at what is too new because this does not correspond to anything in his schema . . . in short, looking is put to use progressively in increasingly various situations . . . He looks at the optimal zone of interest for what is neither too well known nor too new.[43]

Similarly, Mischel, a philosopher, commenting on the concept of equilibrium states that the "need" for knowledge in the above sense of "optimal level of survival" is essentially the awareness of momentary disequilibrium and the satisfaction of need is the awareness of reequilibration.[44] When stated in terms of the acquisition of language, we can say that the symbolic functioning the child develops during the first two years of his life is the "need" for acting and knowing in this most general sense; a "sign," as Piaget uses the term, denotes any thing or event within an action situation which provides some knowledge to the organism about another thing or event. On the basis of this knowledge, the organism behaves adaptively toward that other event. A "sign," by definition, "points to something beyond itself."[45] It is this knower-symbolization-known relationship described in terms of adaptation process which makes language acquisition possible. Let us explicate what is said in some detail.

Piaget's description of the four main stages (sensori-motor, representational, concrete operations, propositional operations) which the child passes through in constructing knowledge structures are not directly relevant to the present discussion. What is relevant, in terms of the acquisition of language, however, is the child's passage from the sensorimotor period (0-2 years) to the representational (2-7 years) during which he develops language. The child's passage from the first stage to the second provides us an account of the way he develops symbolic functioning from the preverbal sensorimotor activities.

Piaget explains the emergence of symbolic functioning in terms of the central concept of sign as directly borrowed from semiology of Saussure.[46] As we have seen before (p.14 above) the sign includes two major components: the "signifier" and the "signified." Piaget distinction among signs is also similar to that of Saussure: the "signal" (index), the "symbol" and the "sign" proper.[47] The "semiotic functioning" of the period of representation is different from the "signalling function" of the sensorimotor period, and consists of the ability to represent something (a signified something; an event, object, a conceptual scheme, etc.) by means of a signifier, which is differentiated from the former and which serves only a representative purpose. The semiotic functioning includes "symbol" in the form of symbolic gesture, imitation, play, and "sign" in the form of verbal language.[48]

The differentiation between signifier and the signified, however, does not appear suddenly from the moment the child starts to understand language and talk (as it is implied in Chomsky's theory). The ability to represent things through signs has its origins in the earlier activities of the sensorimotor period where the infant reacts to objects and events as "indices" and a little later as "signals." The signal is a signifier which is not differentiated from its signified except by its signalling function;[49] a branch protruding over a wall is a signal of a tree; similarly, the visible part of a half-hidden toy for an infant prior to seven or eight months of age is a signal. Reactions to signals are found in animals and humans at all levels throughout their lives. All acts (including vocal), both of the child and of the other persons and objects can potentially act as signals which are gradually assimilated to existing action schemes. The infant's reactions to signals are exemplified in the exchanges between him and others as fixed (by the available reportoire of action schemes) rather than mobile (allowing anticipation that goes beyond immediate perception). For example, before seven-eight months, the child is not able to search for a toy once it disappears from his perceptual field.[50] This will be possible only with the emergence of index.

The child's reactions to indices rather than signals appears with the attainment of scheme of the permanent object at about nine to ten months. A duality between the

signified (the schemes themselves with their content, that is action) and signifiers (the immediate context of the action) begin to form, but these signifiers are not yet totally differentiated from what they signify and refer to the latter, in Taylor's words "in virtue of a part-whole relation or some close relationship of schemes."[51] For example, the child is now able to search for a toy once it disappears from his perceptual field and he now finds the toy without making the mistake of "looking where he looked last time."[52] The crucial point with the indices, however, is that the child's search is still a part of an action already underway, and bound to the limitations of immediate space and time. The child "knows" the object merely in the sense that he "acts upon" objects. His "knowing" is not yet knowledge expressed by means of distant signifiers since it is not represented in thought and only exists at the moment of its practical utilization.

In order to appreciate the importance and the way it functions, the index will be examined in the context of "imitation," a structure which is instrumental for the acquisition of language. Piaget, in his <u>Play, Dreams and Imitation in Childhood</u>,[53] accounts for the way the symbolic functioning passes through from being index into symbol and finally into sign (words) thereby rejecting the Chomskian assumption that from the moment the child starts to under-stand language and talk, he somehow considers language as a system of signs (as opposed to signals, indices and

symbols). Similarly, Chomsky's thesis that imitation plays no role in language acquisition[54] is proven wrong.

The way imitation develops through the six substages of the sensorimotor period is as follows: in the first substage (zero to two months), the neonate is completely fused with his environment. Assimilation and accommodation show little differentiation. But the importance of this substage is that it signifies a change in reflexive behavior; in the coordination of some primitive actions such as sucking, grasping, etc., in relation to objects. But this relationship is set off by certain external stimuli (signal) as described in the framework of classical conditioning. Imitation, however, is completely lacking in the child's actions.

In the second substage (two to four months) the infant gradually develops what Piaget calls "mutual imitation."[55] Here the infant imitate another person if that person imitates the infant at the very moment he is producing an articulate sound sequence (la, le, etc.). The third substage (four to eight months) is characterized with the emergence of schema of object permanence (p. 51 above) following the child's differentiating between himself and reality, then between his actions and reality and finally between objects and events in reality. This separation constitutes the foundation for distinguishing between the subject of the action and the object of the action, the kernel for later subject-predicate of linguistic structures.

Towards the end of the third substage, the "mutual imitation" of the previous substage disappears and "sporadic imitation" emerges. Here the infant will imitate a previously known articulate sound sequence produced by another person even though the infant has not uttered it immediately before the model's production. During this substage, the child's reaction to indices begins to emerge and in the fourth substage (eight to twelve months) they fully replace the expressible signals whose form is tied to the immediate context.

In relation to imitation, the way the mediating index establishes a correspondence between the actions of the child and those of the model can be seen in the following observation of the fourth substage:

> In the case of T. there was no reaction to movements of the mouth or eyes until about 0;9. At 0;9 (21) however, he looked at me attentively when I opened and closed my mouth (without making a sound) and then said tata and papa (neither had assigned meaning). Obviously, the reason for this reaction was that he recognized the movement I made when I myself said papa (he had imitated the sound on the preceding day) and thus assimilated this movement of my lips to the familiar vocal schema. At 0;9 (29), when I opened my mouth (still without making any sound) T. again said papa, but this time in a whisper. He did not, however, imitate any movement related to the tongue, eyes or nose.

> At 0;9 (30) he again said papa or tata in a whisper when I opened my mouth, but when I put out my tongue, he opened his mouth again without making a sound. The same day, when I again began to open and close my mouth, he imitated me correctly, no longer making any sound.

> At 0;10 (21) he correctly imitated the following movements: opening the mouth (silently), putting out the tongue (almost silently) and putting his

finger in his mouth. He imitated the last of these
at the first attempt, without the sound as index
and without any previous spontaneous reaction.[56]

The index thus marks the first clear appearance of a
relationship between a signifier (imitative attempts) and
the signified (object or model's behavior) even though they
are still undifferentiated since they both must occur in
close time and space proximity. The index or the salient
properties shared between the model and the child's actions
in the above example serves the function of bridging the gap
between the behavior of the child and others. The child
comes to imitate the opening and closing of the mouth (which
was not visible to him and hence not immediately present to
him) by assimilating the model's behavior to a familiar
action scheme (in this example, "tata" and "papa") and then
accommodating or adjusting this schema to the mediating
index (the common properties shared between the child's own
actions and those of the model's). After the index has
served its function of bridging the gap between his behavior
and the unknown behavior of the model, it drops out. The
infant can now immediately imitate the model's opening and
closing of the mouth without the index.

As different from the classical learning theory which
predicts a gradual or exponential, one-by-one development,
imitation during this substage is sudden and systematic once
the infant grasps a correspondence between his own actions
and the actions of the model. It is, as Piaget puts it, "as

though [the child] tried out various hypotheses and then finally decided on one of them."[57]

During the fifth substage (twelve to eighteen months), the shared features continue to function as indices between the child's attempts to duplicate the model's behavior and the model's behavior itself. However, continual differentiation between the signifier (the child's imitative attempts) and the signified (the model's behavior) during this substage is necessary if the child is to use the "symbol" as opposed to index. It is the beginning of the sixth substage where the signifier and the signified becomes separate. It is for this reason that the final substage of the sensorimotor period is the most significant in terms of its symbolic function.

The last stage of the sensorimotor period (about sixteen months to two years) shows the further development of imitation in so called "deferred imitation" (imitation at a later time of observed actions of the model).[58] With deferred imitation at this substage, the actions no longer have to co-occur with the child's immediate imitative attempts showing the first indication of internalized accommodation or representation (symbol).

Deferred imitation, play and the first verbal productions of the child which can be recognizable as "words" are examples to the symbol rather than index. Symbols fully develop during the beginning of the period of representation (two to seven years of age). In deferred imitation, as was

just mentioned, a child might imitate a scene from yesterday when there is no immediate stimulus. In play, the child may pretend to be asleep or that a doll is a baby, while he shows himself to be fully cognizant of the differences between being awake and asleep or between dolls and real babies, etc. Symbols, as different from signs are motivated and never wholly arbitrary; that is, even though they are differentiated, they still, in Taylor's words, "resemble or in some way recall what they signify."[59]

The first verbal productions recognizable as "words" also are symbols in this sense. They are inextricably entwined in the complex of objects, actions the child performs on objects and the symbolic representation of the objects. As Piaget puts it, the first words

> retain the imitative character of the symbol, either as onomatopoaeia (imitation of the object) or as imitation of words used in adult language, but extracted from this language and imitated in isolation. Especially, they retain the disconcerting mobility of symbols, in contrast to the fixity of signs.[60]

And "the first language consists almost solely in orders and expression of desire. Denomination is not the simple attribution of a name, but the expression of a possible action."[61] Piaget gives two examples: (1) J., around eighteen months old, knows better and better how to take advantage of adults to get what she wants; her grandfather is especially docile in this respect. The term panana ("grandpere") is used not only to indicate her grandfather, but also to express, even in his absence, her desires; she

points to what she wishes to have and adds <u>panana</u>. She even says <u>panana</u> to express a wish to be amused when she is bored;[62] (2) T., seventeen months old, uses the term <u>a plus</u> ("il n'y en a plus," or something similar) to indicate a departure, then to indicate the throwing of an object onto the floor, then it is applied to an object that falls over (without disappearing), for instance when he is playing with building blocks. A little later <u>a plus</u> means "remoteness" (anything out of reach), and the game of handing over an object for somebody to throw it back to him. Finally, at nineteen months, <u>a plus</u> takes on the meaning of "to start over again."[63]

These examples can be multiplied endlessly; the point however, is that, at first, "words" are simple translations of sensorimotor activities, and gradually then become symbols, more and more resembling the sign in that they show certain detachment from the child's own actions and a desire to communicate by way of sound-complexes which the model also uses. These facts indicate, according to Piaget, that "what Saussure called the 'sign' [evolves] from what he called 'symbol'" (quote on p. 25 above).

The implication of the above discussion of Piaget's theory of symbolic functioning in terms of Chomsky's theory of innate language device is that the linguistic structures are not "pre-formed" or innate but rather build gradually upon the achievements of the sensorimotor period. The most important cognitive requirement for language acquisition

which develops during this period is the ability to make something stand for or represent an object or event which may or may not be perceptually present. This is the knowing-symbolization-known relationship which is totally lacking in Chomsky's theory of the language acquisition device.

In relation to Piaget's constructivist-genetic thesis (page 41 above), the development of symbolic functioning in children verifies that the subject does not innately possess the total system of structures before constructing them but rather develops the higher level of structures from the most elementary level of activities.

In terms of Toulmin's first argument against Chomsky (pp. 38-39 above), Piaget's theory of symbolic functioning supports Toulmin's thesis that we must account for the human linguistic competence not as a result of a single unitary capacity, but of a unique pattern of interrelated capacities (p. 44 above). One must postulate, in other words a "partial language function . . . which can be developed gradually, and bit by bit" (quote by Toulmin, p. 39 above). Chomsky's view omits the child's functional interests in infancy which Piaget emphasizes through his concepts of assimilation and accommodation, that is what the child wants to do with the objects surrounding him.

The second argument by Toulmin (pp. 40-41 above) is also supported by Piaget's theory in the sense that it underscores a close relationship between what is learned—the structure of language—and the way in which it is

acquired. Toulmin, in his reply to Hamlyn's criticism of Piaget, had argued that the analysis of concepts cannot be divorced from the study of their genesis. This is so because, as Piaget's genetic epistemology shows, the criterion by which what we count as "knowing," "understanding," etc., varies throughout human development. More empirical research, however, is needed to support Piaget's thesis that the development of basic cognitive structures are prerequisite to and isomorphic with specific aspects of language structures.[64]

In summary, according to Piaget, the central problem of language acquisition is the development of symbolic functioning through the basic mechanism of accommodation and assimilation: accommodation to the sound sequence through voice organs, visual and kinesthetic accommodation to the seen movements of the environmental events and individuals. Assimilative activity as Furth puts it, "confers meaning on the total situation by transforming the sensory input into things and events that are known according to structures available to the child."[65] These structures include previously acquired schemes of hearing, voicing, and sequencing, corresponding to the phonological aspects of a specific language. Basically, the child's utterances of a specific sentence is the expression of a "known" structure by a sound sequence, just as he might express it by other actions such as gesture, imitation, etc. As far as symbol

formation is concerned, these signifiers are functionally equivalent.

A behavioristic approach would dismiss the development of symbolic functioning as a pseudo-problem, that there is no such thing as a symbol. Chomsky has diverted the attention from the actual functioning of symbols, postulating a fixed, innate acquisition device. With Piaget, for the first time an attempt is made to consider language as part of the internal symbolic environment: the source of language is not innate structures by rather the subject's continuous interaction with the objects around him: human activity is not a scene "of a play written beforehand and of which the subject is not the author."[66] Although it has its limitations (as will be considered below), Piaget's inclusion of the subject's experience into his theory, opens necessarily to a functional interpretation of linguistic structures: functioning is the subject's activity whose end results are the structures constructed by him.

If Piaget is right in his claim that language is a continuation of child's actions with other means, then an adequate theory of acquisition must be based on the general human abilities (in the plural). This has been the gist of Toulmin's argument against Chomsky's supposition of a separate unitary language capacity as totally divorced from the other human abilities. Piaget's attempt constitutes a serious challenge and a possible alternative to Chomskian formalism. However, the limitations Piaget imposes on the

concepts of structure, subject, environment, etc., prevents him to situate language within the context of the totality of human skills and abilities. The remainder of this chapter attempts to critically evaluate these limitations which are common to Piaget's and Chomsky's theories.

Piaget's notion of the epistemic subject which he proposes in place of Chomsky's concept of the ideal subject, remains an abstraction similar to Chomsky's in that it is detached from the social, cultural aspects of human activities. In his Structuralism, Piaget criticizes Chomsky's conception of the subject for the reason that it possesses structures innately before constructing them.[76] Piaget argues that since structures are "system of transformations" they are necessarily interconnected, that is they live only on systems. It may then, he adds, seem natural, to search for the "total system of structures" or "structure of all structures" which may serve as an "organ of connection." However, such an idea of structure of all structures is proven to be unrealizable by Gödel who demonstrated the impossibility of a complete formalization in any coherent system.[68] Therefore, Piaget concludes that the explanations presupposing the existence of such an entity--"the subject, society, life, or what have you--which might serve as a total system of structures" is an unrealizable dream.[69]

Piaget, in rejecting the existence of the subject in the above sense, nevertheless wishes to preserve the concept of subject in another sense, arguing that the process of

construction of mental structures, requires an active involvement on the part of the subject. We cannot, he adds, conceive the construction of a structure without at the same time postulating a subject who constructs it. If we need to postulate the existence of a subject, this subject then must be the "mediator" of construction and reconstruction of structures at a level which is common to all structures.[70] And this level is the level of actions or operations. The subject which is attributed to cognitive structures is then, "any kind of subject" or "epistemic subject" understood as "the center of functional activities."[71] Moreover, Piaget equates the subject with the mechanism of equilibration. Equilibrium, within this context, is the requirement of maximum activity on the part of the subject: an activity oriented towards a dynamic balance or equilibration. Piaget, therefore, concludes: "Equilibrium is synonymous with the subject's activity."[72]

Such a conception of the subject as "mechanisms" common to any subject, in the present author's opinion, artificially circumscribes Piaget's theory to deal with only one aspect of human life, namely that of the development of cognitive structures. The human subject in this curious sense becomes not the flesh-and-blood living individual, the "I," but rather the artifices of structures: the subject is seen as the functional center of the solutions of problems of a progressively abstract nature (reflective abstraction) and

these epistemic functions are seen as making possible the everyday performance of the "individual subject."

Such a conception of the subject is a consequence of Piaget's wish to establish the objectivity in human knowledge by achieving the "decentering" of the subject through the notion of structures, that is, reversible, closed system of self-regulations. For the very same reason, Piaget and Chomsky place very stringent constraints on what might count as true structures. This may reflect their view that mathematics is the ideal of intelligibility and the ideal model for all forms of explanation. However, the uniqueness of the human mind lies much more on the capacities it possesses to accommodate to social and cultural expressions and form of life rather than on its capacity to grasp the implications of "groups," "lattices," "loop structures," etc.

In his book Human Understanding, Toulmin emphasizes this last point arguing that Piaget not only regards the different cultural expressions of the human conceptual system as irrelevant but also claims to have discovered developmental invariants which must hold for all cultures.[73] Hamlyn has a similar objection to Piaget and Chomsky, pointing at their implicit assumption that the individual acquires his knowledge, as it were, by himself without the aid of other people.[74] This is so, in the case of Piaget, because his theory regards mental structures as having been internalized from interaction between the self and the world of objects. Influence of other people is main-

ly as providers of alternative conflicting perspectives ("epistemic opposition") which aids in the "decentering of the subject;" knowledge is not acquired from others but out of an inevitable mismatch of cognitive perspectives. As Vygotsky puts it, "socialization of thought is seen by Piaget as a mechanical abolition of the characteristics of the child's own thought, their gradual withering away."[75]

As will be discussed in the following chapter, Vygotsky and other functionalists provide an alternative to the limitations of Piaget's interactionalism of subject-to-subject type by bringing the self-social world dialectic into consideration.

Chomsky shares Piaget's implicit refusal to acknowledge the socio-cultural system within which we all have to function in our everyday life. As the present chapter aimed at demonstrating, Piaget's theory is an advance over Chomsky's abstract, mechanical conception of the language acquisition device in that the former takes into account the dialectic relationship between the child and the concrete world. As is mentioned early in the chapter (pp. 33-34 above), Chomsky emphasizes that the input to the acquisition device (AD) is speech (i.e., the impact of social factor) which triggers the AD. This way, Chomsky claims, his theory of language acquisition acknowledges the role of social factor.

When Chomsky claims that an appropriate input in the form of speech heard in the child's environment "triggers" the acquisition device, he means only the functioning of a

process similar to those of bodily organs. The acquisition device, if triggered by the input, works the same way everywhere regardless of differences between the levels of intelligence of the various persons and regardless of the type of input. To put it differently, a normal child develops the correct generative grammar of a given language no matter which social environment he is in and regardless of how his people speak. Just as a heart or liver does not learn its function, a human being does not learn a language, it simply develops.[76] Thus, it is not true that Chomsky acknowledges the role of speech in the acquisition of language.

Moreover, as will be discussed in the following chapter, reference to the influence of social factor cannot be understood as merely speech sounds heard by the child, but includes man's social actions and abilities in the most general sense.

In summary, the present chapter has argued against Chomsky's conception of linguistic competence as the unitary capacity responsible for the acquisition of language. Consistent with Toulmin's criticism of Chomsky that "a theory of language should make biological sense,"[77] Piaget's argument for the genetic epistemology is reconstructed as an alternative to Chomsky's innatism. If Toulmin and Piaget are right in their argument against Chomsky that linguistic or not all structures of human mind have an evolutionary history in so far as they comprise many capacities that are discernible at a prelinguistic stage, then Chomsky's argu-

ment for an innate mechanism as detached from other cognitive capacities is put in question.

The value of Piaget's theory lies in its emphasis on the mutual dependence of the cognitive and functional aspects of language acquisition. But with its restricted notion of the subject's activity and structure, Piaget's interactionism de-emphasizes the dialectical interactions between the biological organism and the cultural-historical structures. Language and speaking can only be understood as something done for the purpose of interacting with other people rather than a biological organism's interaction with the concrete world of objects. This is the central theme of the following chapter where the concept of symbolic functioning will be considered under the broader concepts of social action and intentional, rule-governed essence of communication.

FOOTNOTES

[1] N. Chomsky, <u>Aspects of the Theory of Syntax</u>, pp. 51-52.

[2] N. Chomsky, "The Formal Nature of Language," in E. H. Lennenberg (ed.) <u>Biological Foundations of Language</u>, p. 401.

[3] By "physicalism" is meant, in this context, the philosophical system according to which all statements made about a person's thoughts, emotions, and sensations can be reformulated as statements about his bodily condition and observable behavior, and can thus be brought within the scope of "physical" laws. By "determinism" is meant the doctrine that all physical events and phenomena, including those actions and decisions of human beings that we might describe as resulting from "choice" or "free will," are determined by earlier events and phenomena and are subject to laws of cause-and-effect, so that our impression of freedom of choice is totally illusory (see J. Lyons, <u>Noam Chomsky</u>, pp. 108-9.

[4] B. F. Skinner, <u>Verbal Behavior</u>, p. 84.

[5] Ibid.

[6] N. Chomsky, "A Review of B. F. Skinner's <u>Verbal Behavior</u>," in J. A. Fodor, J. K. Katz (eds.) <u>The Structure of Language</u>, p. 577.

[7] N. Chomsky, "Explanatory Models in Linguistics," in E. Nagel, P. Suppes, A. Tarski (eds.) <u>Logic, Methodology, and the Philosophy of Science</u>, p. 228.

[8] N. Chomsky, <u>Cartesian Linguistics</u>, p. 60.

[9] N. Chomsky, "The Formal Nature of Language," <u>ed. cit.</u>, p. 407.

[10] Ibid., p. 402.

[11] Ibid., p. 416.

[12] J. J. Katz, <u>The Philosophy of Language</u>, p. 269.

[13] N. Chomsky, <u>Syntactic Structures</u>, sec. I-II.

[14] N. Chomsky, <u>Language and Mind</u>, p. 76.

[15] N. Goodman, "The Epistemological Argument," <u>Synthese</u>, 17, 1967, p. 27.

[16] N. Chomsky, "Conditions on Rules of Grammar," in R. W. Cole (ed.) <u>Current Issues in Linguistic Theory</u>.

[17] S. Toulmin, "Brain and Language," <u>Synthese</u>, 22, 1971, p. 373; also, S. Toulmin, <u>Human Understanding</u>, pp. 464-66.

[18] S. Toulmin, "Brain and Language," <u>ed. cit.</u>, p. 378.

[19] D. W. Hamlyn, "Epistemology and Conceptual Development," in T. Mischel (ed.) <u>Cognitive Development and Epistemology</u>, p. 23.

[20] Ibid., p. 5.

[21] Ibid., p. 8.

[22] S. Toulmin, "The Concept of 'Stage' in Psychological Development," in T. Mischel, <u>ed. cit.</u>, p. 38.

[23] J. Piaget, <u>Genetic Epistemology</u>, pp. 12-13.

[24] Ibid., p. 13.

[25] J. Piaget, <u>The Principles of Genetic Epistemology</u>, p. 12.

[26] Ibid., pp. 15-16.

[27] J. Piaget (with B. Inhelder), <u>The Psychology of the Child</u>, pp. VIII-IX.

[28] J. Piaget, "The Concept of Structure," in Unesco (ed.) <u>Scientific Thought</u>, p. 53.

[29] J. Piaget, <u>The Principles of Genetic Epistemology</u>, p. 12.

[30] J. Piaget, "General Problems of Interdisciplinary Research and Common Mechanisms," in Unesco (ed.) <u>Main Trends of Research in the Social and Human Sciences, Part One: Social Sciences</u>, p. 483.

[31] D. MacRae, "Introduction" to R. Boudon, <u>The Uses of Structuralism</u>, p. IX.

[32] J. Piaget, <u>Structuralism</u>, p. 140.

[33] Ibid., p. 34.

[34] J. Piaget, "Review of <u>Studies in Cognitive Development</u>," in <u>Contemporary Psychology</u>, V. 12, N. 11, p. 532.

[35] J. Piaget, <u>Structuralism</u>, p. 141.

[36] J. Piaget, "Schemes of Action and Language Learning," in M. Piattelli-Palmarini (ed.) Language and Learning: The Debate Between Jean Piaget and Noam Chomsky, p. 166.

[37] Ibid., pp. 166-67.

[38] J. Piaget, Structuralism, p. 12, 90.

[39] J. Piaget, "Psychogenesis of Knowledge and its Epistemological Significance," in M. Piattelli-Palmarini, ed. cit., pp. 28-9.

[40] Ibid.

[41] J. Piaget, Structuralism.

[42] W. Kessen, "Early Cognitive Development: Hot or Cold," in T. Mischel, ed. cit., p. 303.

[43] Ibid.

[44] T. Mischel, "Cognitive Conflict and the Motivation of Thought," in T. Mischel, ed. cit., p. 322.

[45] H. G. Furth, Piaget and Knowledge, p. 86.

[46] F. de Saussure, Course in General Linguistics, pp. 68-69.

[47] J. Piaget, Structuralism, p. 115, n. 51.

[48] J. Piaget, The Psychology of the Child, p. 51.

[49] J. Culler, Ferdinand de Saussure, p. 104.

[50] J. Piaget, The Psychology of the Child, p. 14.

[51] C. Taylor, "What is Involved in Genetic Psychology," in T. Mischel, ed. cit., p. 402.

[52] J. Piaget, "The Psychology of the Child," pp. 14-15.

[53] J. Piaget, Play, Dreams and Imitation in Childhood, p. 7 ff.

[54] N. Chomsky, "A Review of B. F. Skinner's Verbal Behavior," in J. A. Fodor and J. K. Katz (eds.) The Structure of Language.

[55] J. Piaget, Play, Dreams and Imitation in Childhood, p. 9.

[56] Ibid., p. 40.

[57] Ibid., p. 45.

[58] Ibid., p. 68.

[59] C. Taylor, "What is Involved in Genetic Psychology," in T. Mischel, ed. cit., p. 402.

[60] J. Piaget, Play, Dreams and Imitation in Childhood, p. 235.

[61] Ibid., p. 236.

[62] Ibid., p. 213.

[63] Ibid., p. 232.

[64] For a review of recent research on the subject, see A. J. Elliot, Child Language, Cambridge: Cambridge University Press, 1981.

[65] H. G. Furth, Piaget and Knowledge, p. 63.

[66] J. Piaget, "Psychology," in Unesco (ed.) Main Trends of Research in the Social and Human Sciences, Part One: Social Sciences, p. 240.

[67] J. Piaget, Structuralism, p. 112.

[68] Ibid., pp. 33-34; 140-141.

[69] Ibid., p. 91.

[70] Ibid., p. 139.

[71] Ibid., p. 68, 70.

[72] J. Piaget, "Genesis and Structure in the Psychology of Intelligence," in D. Elkind (ed.) Six Psychological Studies, p. 151.

[73] S. Toulmin, Human Understanding.

[74] D. W. Hamlyn, "Human Learning," in S. C. Brown, Philosophy of Psychology, p. 155.

[75] L. S. Vygotsky, Thought and Language, p. 8.

[76] N. Chomsky, "Discussion" in M. Piattelli-Palmarini, ed. cit., pp. 73-77.

[77] S. Toulmin, "Brain and Language," Synthese, 22, 1971, p. 372.

III

A DYNAMIC CONCEPTION OF COMMUNICATION BASED ON

THE OBJECTIVITY OF LINGUISTIC MEANING: VYGOTSKY'S

AND WITTGENSTEIN'S CRITIQUE OF CHOMSKY AND PIAGET

In the previous chapter, Piaget's account of language acquisition is compared and contrasted to Chomsky's to show that the latter view is unsatisfactory in that it ignores (a) the crucial role assigned to human subject as the language user, (b) the role of the prelinguistic development in language acquisition, (c) the interaction of human beings in a social and cultural environment. The present section is an attempt to remedy these deficiencies of Chomsky's theory.

Chomsky's theory, as has been emphasized throughout this dissertation, fails on all three counts mentioned above. Although his structuralism occasionally makes reference to concrete human beings in their "performance," in essence, it aims at abstract, formal description of the language of an ideal being. Chomsky views the syntactic or "deep" structures as built into the organism in the form of innate ideas, and the "competence" of syntax as prior to human experience. It is therefore not surprising that such competence is described as formal-universal system of signs and rules in its timeless or synchronic dimension rather than in its developmental and concrete diversity. Moreover,

by viewing such formal structures as the essence of language, Chomsky's theory ignores the exchange of meaning in its socio-cultural setting, thus eliminating communicative aspects of language from its consideration.

Piaget's theory of symbolic functioning, with its emphasis on the interdependence of structure and function, seems to the present researcher a natural starting point for a critique of Chomsky that addresses the issues just mentioned. Piaget's views are located mid-way between the structuralism of Chomsky on the one hand, and the functionalism of Vygotsky and Wittgenstein on the other. Like Chomsky, Piaget is a structuralist, emphasizing the crucial role the structures and their transformation play in human knowledge. In contrast to Chomsky, however, Piaget considers these structures not as innate capacities but as a developmental "end-product" of the subject's interaction with his environment. Thus, we will not quarrel with Piaget's proposition that structures (linguistic or other) cannot be separated from their construction through an interaction between the subject and the objects. To this proposition, we must add the qualification that the "object" with which the human infant interacts most often and most effectively is almost always another human being. In this sense the Piagetian standpoint needs to be revised and expanded explicitly to include the intersubjective basis of language.

The present researcher also accepts the value of Piaget's proposition that cognitive and functional aspects

of language acquisition exist in a state of mutual dependence. This statement is especially significant when contrasted to Chomskian claim that the course of language development is determined only by factors within the linguistic system thus excluding any nonlinguistic (cognitive or other) factors. For Chomsky, it is those formal universal rules as part of the child's "language acquisition device" (LAD) that makes language possible. Piaget, on the other hand, shows how, during the first two years of life, the child has represented the world to himself through sensorimotor actions ("prelinguistic thought") and, further, how symbolic play plays an important part in the interiorization of these actions.

When taken not only in its growth during the very early years of life, but in its total ontogeny, however, Piaget considers cognitive development as independent of language acquisition. That is, language builds on a number of cognitive abilities which have already arisen independent from symbolic functioning. It may, in the form of symbolic functioning, allow for three developments: a speeding up of representation that is already initiated by sensorimotor representation, an ability to transcend immediate space and time, and the ability to represent a number of elements simultaneously rather than by step-by-step thought (see chapter three).

The limited role attributed to language in the development of thought, or, to put it differently, the overriding

role assigned to cognition in the development of language is largely due to Piaget's omission of linguistic and non-linguistic factors embedded in the child's early interaction with his social and cultural world. This aspect of Piaget's theory also needs to be revised in relation to his misconceived notion of "egocentric" speech.

To sum up: The purpose of the present chapter is not an absolute denial of Piaget's position but rather constitutes a critical extension of his theory of symbolic functioning in a direction that will fulfill the above mentioned criteria. Such a critique will receive its support in the present chapter from two main sources: Vygotsky and Wittgenstein.

In reference to the issues mentioned at the beginning, let us elaborate the rationale for considering Vygotsky and Wittgenstein pari passu in this chapter. Doing so will also provide us a synopsis of the arguments to be developed in this chapter against Chomsky and Piaget.

The first reason why this chapter singles out Vygotsky and Wittgenstein is that their arguments support one of the major contentions of the present dissertation, namely that an investigation of the growth of language in the child is necessary for an understanding of language as a completed system. This thesis has been developed in the previous chapter by relying on Toulmin's (and Piaget's) arguments against Chomsky's theory of language acquisition. There, Toulmin's argument was presented in two forms: as applied to

language development from the viewpoint of the biological criteria (pp. 38-39 above), and from the epistemological viewpoint of the relationship between philosophy and psychology (pp. 40-42 above). A third form of Toulmin's genetic argument--from the standpoint of philosophy of science, can be stated as follows:

> All scientific experience indicates that one cannot analyze the criteria for recognizing when a process is completed, in a final and definitive form, until the actual course of the process has been studied. Rather, the two investigations must proceed pari passu. We start out with a first, rough criterion of "completion;" but as our understanding of the process improves we progressively refine that criterion--developing, as a result, more satisfactory conceptions both of the actual course of the process and of its completion.[1]

Both Wittgenstein and Vygotsky confirm the genetic thesis in their account of language. Wittgenstein suggests that we can understand language as a developed system by "study[ing] the phenomenon of language in primitive kinds of application."[2] Wittgenstein's emphasis on "language games," that is, the various ways the child first learns words, reflects his conviction that the analysis of the simple language forms with which we learn language helps us to understand language in its more complex forms.

Vygotsky also maintains the genetic standpoint in his discussion of the different role language plays in relation to behavior at the learning stage, and in the subsequent employment of concepts. At the learning stage language is a "means" or "instrument" while in the subsequent employment of concepts, it is a "symbol."[3] Secondly, Vygotsky holds

that language and thought have different genetic roots and that these two processes develop along different lines and independently of each other. In the development of thought one can observe a prelinguistic phase and in the development of language, a preintellectual phase. The child's "turning point" or his "discovery of meaning" occurs when, at some point in the course of development, language and thought meet. This point is the emergence of "inner speech" where thought becomes verbal and language intellectual.[4]

The second reason why Vygotsky and Wittgenstein are considered together is their common emphasis on the inter-subjective nature and the cultural basis of language. As such they affirm the central contention of this chapter: that the origin and growth of language should be sought, not in the innate mechanisms the child is born with (Chomsky), nor in the child's activities with inanimate world of objects (Piaget), but rather in those idiosyncratic but shared understandings which he first evolves during his earlier social encounters. Vygotsky, for example, writes:

> Any function in the child's cultural development appears on the stage twice, on two planes, first on the social plane and then on the psychological, first among people as an intermental category and then within the child as an intramental cate-gory.[5]

It is of particular interest that Vygotsky invokes the term "intermental," which is hardly distinguishable from the term "intersubjective." Vygotsky thus affirms that, after a certain degree of early cognitive development, the child can only achieve a fully articulated knowledge of his language,

as he becomes involved in social transactions with other communicating human beings. And, at a certain point in its development, language, in the form of inner speech (the kernel of speech acts), assumes the role of a primary shaper of man's view of the world.

Wittgenstein, like Vygotsky, confirms the intersubjective and social character of linguistic behavior. As summarized by Strawson,[6] Wittgenstein's later philosophy has three cardinal elements all of which emphasize the above indicated character of language: (a) "To imagine a language means to imagine a form of life"[7] and "What has to be accepted, the given, is--so one could say--forms of life."[8] The first major thesis of Wittgenstein's later philosophy, then, confirms the ultimately irreducible basis of our language as "form of life" (Lebensformen), which has to be accepted as given; (b) "What happens now has meaning--in this context. The context gives it its importance."[9] Here Wittgenstein is drawing attention to the fact that all our words and expressions have sense and meaning only in a wider context, in an "environment," but that they can never function as isolated symbolic entities; (c) "An 'inner process' stands in need of outward criteria."[10] This thesis formulates Wittgenstein's view of the impossibility of private language. The language in which we speak of our experiences is bound up with our external modes of behavior, that is, it is intersubjective. And the intersubjective language, learned within social and cultural context, is rule-governed.

Before unfolding the arguments pressed in the above given synopsis of Vygotsky's and Wittgenstein's views, let us further justify our choice of examining them together in this chapter by the following quote from Toulmin:

> I myself, for instance, happened to read [Wittgenstein's] _Zettel_ in alternation with L. S. Vygotsky's book _Thought and Language_ . . . and the experience of turning between one book and the other set my head ringing with intellectual echoes. In so many ways, the theoretical parallels, the similarities in general intellectual attitude, even the tones of voice of the two men were too close to be entirely independent.[11]

Up to this point an attempt has been made to draw attention to the similarities in Vygotsky's and Wittgenstein's views on language in terms of their emphasis: (a) on the role assigned to the language user, (b) to the development of the human being, (c) that humans interact in a social and cultural environment.

In the following pages, first, Vygotsky's solutions to some of the major problems in understanding the child's early language development will be elaborated within the framework outlined above. Here the focus will be on Vygotsky's crucial notion of "inner speech" in connection with Piaget's notion of "egocentric speech." It will be shown how, through a critique of the concept of egocentric speech, Vygotsky underscores the social-communicative aspects of language development. Secondly, Wittgenstein's contribution to the problem of the acquisition of meaning will be developed in relation to his notions of "language games" and "forms of life." Finally, the broader implica-

tions of Vygotsky's and Wittgenstein's views will be discussed in connection with Piaget's and Chomsky's theories.

According to Piaget, as was discussed in the previous chapter, the infant, during his first two years of life, perceives a kind of reality around him which would be almost unfamiliar to an adult. His earliest perceptions are undifferentiated and meaningless. Gradually he begins to notice things around him, by "acting upon" and by imitation. In general, however, during this period his point of view in his environment is self-centered or limited in the sense that he is not aware that he has a point of view (what Piaget coins as "egocentric" thought and speech).[12] To put it differently, the child is unable to take the role of another person and thus make a real effort to adopt his speech in order that another person can understand him. Mainly for this reason the child's early use of words reveals an ambiguity of meaning (pp. 56-58 above). Vygotsky would concur with Piaget up to this point:

> The data on children's language (supported by anthropological data) suggests that for a long time the word is to a child a property, rather than the symbol of the object; that the child grasps the external structure word-object earlier than the inner symbolic structure.[13]

Piaget, however, maintains that due to the dependence of linguistic structures upon the development of cognitive structures, the child's speech until about seven or eight years is also egocentric and not social or communicative. This is so since, for Piaget, the thinking of the child is

also egocentric during this period. Speech merely reflects the development of thought. What Piaget calls communicative speech appears at the stage of concrete operations (age seven to twelve) when the de-centering of thought takes place through the reversibility and reciprocity of cognitive structures.[14] Only then the child is able to step out of his self-centered position and assume the role of another person.

Before resuming Vygotsky's argument that what Piaget calls the egocentric speech is not really egocentric, we must explain the relationship between thought and language as viewed by Vygotsky. Such a digression is necessary since it is this "mechanism" of thought and speech that led to Vygotsky's claim that the child's speech is communicative or social.

Vygotsky maintains that language and thought have a different relationship than that suggested by Piaget. Contrary to Piaget's contention that language is dominated by thought in its development, Vygotsky proposes the following thought and language interaction:

> (1) In their ontogenetic development, thought and speech have different roots. (2) In the speech development of the child, we can with certainty establish a preintellectual stage, and in his thought development, a prelinguistic stage. (3) Up to a certain point in time, the two follow different lines, independent of each other. (4) At a certain point these lines meet, whereupon thought becomes verbal and speech rational.[15]

Although there exists a certain degree of ambiguity in his descriptions, let us attempt to reconstruct Vygotsky's

account of the relationship between thought and language as summarized in the above quote. The child in "preintellectual speech" (prior to the age of two) uses verbal forms without being conscious of them; the word to the child is an integral part of the object it denotes.[16] Vygotsky compares the child of this period using a "word" to a chimpanzee using a stick to reach a fruit; the stick to a chimpanzee becomes part of the structure of obtaining the fruit. Similarly to a child a "word" is merely one of the properties of the object which has to be supplied "in order to make the structure complete;" it becomes a part of the structure of the object on equal terms with its other parts.[17] He may recognize a small number of words which substitute, as in conditioning, for objects, persons, actions, states, or desires, but these words are supplied to him from the outside, by other people, and is not a part of the child's inner symbolic structure.[18]

Thought, according to Vygotsky, also has its own course of development. During the early years of life, Vygotsky contends, child's prelinguistic thinking has the form of "participational immediacy" where thinking occurs in terms of "complexes." Thinking in a complex includes the concrete grouping of objects connected by factual bonds in addition to the bonds added through the child's simple subjective impressions. The main difference between a "complex" and a concept (which is the element of "intellectual thought") is the following:

> While a concept groups objects according to one attribute, the bonds relating the elements of a complex to the whole and to one another may be as diverse as the contacts and relationships of the elements are in reality.[19]

> A complex does not rise above its elements as does a concept; it merges with the concrete objects that compose it. This diffusion of the general and the particular, of the complex and its elements, this psychic amalgam . . . is the distinctive character of all complex thinking.[20]

The child of complex thinking, according to Vygotsky, thinks in terms of "family names" which are discovered through direct experience denoting nothing more than a "vague syncretic conglomeration of individual objects that have somehow or another coalesced into an image in the child's mind." Therefore, the child's usage of words, at this stage, may "coincide with that of an adult's in its objective reference but not in its meaning."[21]

Sometime prior to school age, the so far "preintellectual" language and "prelinguistic" thought merge into one another with the appearance of what Vygotsky terms "inner speech." With the fully developed inner speech, the common realm of thought and language reaches its climax: thought becomes verbal and speech rational. Before exploring the importance of Vygotsky's notion of inner speech in connection with the communicative basis of language, let us conclude, at this point, Vygotsky's argument against Piaget's contention that the speech of the young child is asocial or egocentric.

Under the light of the above discussed relationship between thought and speech, Vygotsky now contends that the

"external" or vocal speech which the playing child prior to age seven resorts to in case of difficulties (i.e., when playing with blocks) is but an incipient stage in the development process leading to inner speech. Egocentric speech, in the evolution from preintellectual to inner speech) or from prelinguistic to verbal thought) represents "the turning of thought into words, its materialization and objectification."[22] Vygotsky maintains that young children use overt speech (i.e., egocentric speech) to guide their behavior because they are not able yet linguistically to direct their actions in a correct manner as do older children and adults. By speaking to himself, the child mobilizes the potential that has built up during his life. Egocentric speech, however, is still fully vocalized and not abbreviated. As children grow older there is a decline in overt egocentric speech in that it is progressively abbreviated merging finally into inner speech. Verbal thought (inner speech) developing from overt speech then becomes the "mechanism" for self-guidance of the child's behavior.

In sum, what was originally termed by Piaget as communicative and egocentric speech become, for Vygotsky, inner speech and external speech. As such, the latter is simply a stage of development preceding inner speech partaking many of its structures and functions. It is Vygotsky's notion of inner speech that forms the basis of his emphasis on the crucial role language plays in the direction and regulation of behavior, both in children and in adults. For it repre-

sents both thought and behavior at once. In the following pages the communicative function of the concept of inner speech will be examined in connection with the more recent notion of speech acts.

As the culmination of thought and language, inner speech, according to Leontev (a student of Vygotsky) "is a verbal act carried out 'within,' i.e., reproduced in a compressed, reduced form."[23] It is also predicative and highly situational and contextual in character. As Vygotsky puts it:

> In inner speech a single word is so saturated with
> sense (and private meanings) that many words would
> be required to explain it in external speech.[24]

Vygotsky illustrates his point by analyzing a scene described by Tolstoy in Anna Karenina in which two people in love engaged in a dialogue consisting of initial segments of words and one-word utterances only, and yet "understood each other perfectly." Similar states of nearly perfect complementarily and synchronization of intentions and thoughts may emerge under far less romantic human conditions, the examples of which can be found in our daily lives. Rommetveit[25] gives the example of a middle-aged married couple who are temporarily united by shared worries of their son, Sam. On such an occasion, an interrogatory gaze from the wife in response to the gloomy tension of the husband may lead to a cryptic remark "pot." And the wife "understands perfectly": what is worrying her husband at that moment is the possibility that their son may start smoking pot. Wittgenstein, as

we shall see, suggests similar metaphors about speech acts as moves within different language games embedded in "form of life."

Vygotsky's description of inner speech is a prototype of what the ordinary language philosophers, such as Austin and Searle, would call "speech acts." Speech act, as Searle puts it, is a speaker's "doing something in saying something."[26] Vygotsky's notion of inner speech, thus, is a good account of how language behavior and thought come to correspond at a level of implicitness. Whatever speech act that is "perfectly understood" under such implicit conditions can only be assessed against the <u>background</u> of whatever constitutes the intersubjectively established social reality at the moment of the use of the speech act.

Such background conditions, we claim, correspond to what Searle calls "rules of reference."[27] For the purpose of relating them to Vygotsky's inner speech, we can reduce these background rules to three.

The first condition of referring in inner speech is the speaker's immediate intention. When, for instance, in the above example, Sam's father, by uttering "pot," makes known to his wife neither more nor less than that which she does not already know, but wants to be informed about at that moment. It means something like "I get you to think of it, or selectively attend to it." The second condition is a restriction on the means of achieving this end: not only does Sam's father intentionally identify something for his

wife, but he does so partly by means of her recognition of his intention. That is, he does so because of what <u>he knows</u> <u>that she knows</u>, namely that he at that moment is immersed in worries concerning some aspects of Sam's conduct. The third condition is that referring in speech act only occurs as part of larger, and only partially linguistic, communicative acts. That is, what is made known by what Sam's father says must be assessed against the background of other potential and plausible speech acts, such as "I think Sam will never finish his university training," "I am afraid Sam's girl-friend is pregnant," "I think of what will become of Sam when we have passed away," etc. Those conditions are what Wittgenstein would call "forms of life."

In accordance with the insights of the speech act theorists, therefore, we may conclude that inner speech is the prototype of rule-governed speech acts uttered under ideal conditions of complete complementarity in an intersubjectively established, shared social world.

Once language is considered as intentional, rule-governed communicative act, we must then revise the concept of sign and what it "refers" to as viewed by Saussure, Chomsky and Piaget. As we have discussed in chapter two, reference in Saussure can be regarded as a relation holding between a linguistic expression and a concept. As it was discussed, in the third chapter, Piaget extended this relationship to a linguistic expression (called a referring thing) and something, process, or state of affairs (called

the referent). Now, in accordance with the above discussion
of inner speech, we are in a position to state, with Strawson[28] that the primary element in the definition of a linguistic sign is not the signified-signifier relationship,
but the communicative act of <u>referring</u>: this is not a relation between words and the world, but something that people
<u>do</u> with words. In this sense of the sign, "word meaning"
becomes, according to Vygotsky, the paradigm or the unit of
analysis because, in its two functions, as generalization
and as means of communication, the word is one. To quote
Leontev, the emergence of word meaning is

> a process of gradual mediation of communicative
> intention first by inner speech (inner word) then
> by the meaning of outer words and finally in outer
> words themselves.[29]

The Vygotskian emphasis on the social-communicative
character of language is echoed in the following analysis of
Wittgenstein's account of the acquisition of meaning. Here,
first, the similarities between Vygotsky's notion of inner
speech and Wittgenstein's central doctrine about "language
games" will be emphasized. Secondly, Wittgenstein's contribution to the acquisition of language, with cross-references
to Chomsky and Piaget will be reconstructed. Third, the
implications of Wittgenstein's theory of meaning will be
discussed within the framework of speech act theorists such
as Austin, Searle, and Rommetveit. Finally, the broader consequences of Vygotsky's and Wittgenstein's views will be
examined in relation to Chomsky and Piaget.

Wittgenstein introduces the notion of "language-game" in the <u>Blue Book</u>, in relation to the question, "What are signs?" He comments: "Instead of giving any kind of general answer to this question, I shall propose to you to look closely at particular cases which we should call 'operating with signs.'"[30] When we look at the operating with signs we see something like games:

> There are ways of using signs simpler than those in which we use the signs of our highly complicated everyday language. Language games are the forms of language with which a child begins to make use of words. The study of language games is the study of primitive forms of language or primitive languages . . . when we look at such simple forms of language the mental mist which seems to enshroud our ordinary use of language disappears. We see activities, reactions, which are clear cut and transparent.[31]

The problem is to understand what Wittgenstein means by "operating with signs" within the "primitive or simple forms of language." If language games are the simple "forms of language with which a child begins to make use," as mentioned in the above quote, it is clear that he is not referring to the "sign" in the strictly linguistic sense such as defined in a dictionary, or discussed in a treatise on grammar. It is rather reasonable to interpret these simple forms of language within the frame of Vygotsky's notion of inner speech and Strawson's idea of the act of referring as discussed above (pp. 86-87 above). Here the criterion of simplicity must be understood in the sense of being acted upon, that is the use of words within a specific context. If there is an understanding of the use of words in any particular

action, we have, according to Wittgenstein, a simple form:
"Language, in its simple form, stems from activities, reac-
tions, which are clear cut and transparent."[32]

As examples of such activities ("language games"),
Wittgenstein offers

> Giving orders and obeying them--
> Describing the appearance of an object, or giving
>   its measurements--
> Constructing an object from a description (a draw-
>   ing)
> Reporting an event--
> Speculating about an event--
> Forming and testing a hypothesis--
> Presenting the result of an experiment in tables
>   or diagrams--
> Making up a story and reading it--
> Play-acting--
> Singing catches--
> Guessing riddles--
> Making a joke; telling it--
> Solving a problem in practical arithmetic--
> Translating from one language into another--
> Asking, thanking, cursing, greeting, praying--[33]

This multiplicity of language games indicates that
knowing a language is, in effect, knowing a system of rules
of how words are appropriately used. That is, any linguistic
expression (a word, phrase, or sentence), according to Witt-
genstein, owes its meaning to having been given a rule-
governed use or uses, in the context of such activities: in
isolation from any activity of this sort, the expression
itself would lose all linguistic status and would become a
mere mark or noise--an "idle wheel" engaged with nothing.

Language games in turn, however, must be understood in
their own broader contexts; Wittgenstein sees his character-
ization of language in terms of language games in order "to
bring into prominence the fact that the speaking of language

is part of an activity, or a form of life."[34] Although there exist various (sometimes conflicting) interpretations of Wittgenstein's notion of "forms of life,"[35] one can reasonably claim, with Toulmin, that the essential task of this concept is to direct our attention "to those general patterns of human activity within which our collective conceptions come to be given their standard significance."[36] Toulmin also notes that with Wittgenstein's claim that human activity is rule-governed, these standard uses or constellations should be viewed as interpretations made determinate by culture and society.[37] This interpretation chimes in well with Vygotsky's idea that with the emergence of inner speech the child begins to regulate his own behavior in the light of intersubjective rules and can now apply these rules autonomously for himself without reminder from other people.

In addition to the above mentioned similarities between Vygotsky and Wittgenstein, they also share the view that language is a complex phenomena which can be best understood by referring back to its simple forms. In his search for simple forms of language, Wittgenstein does not hesitate to single out children's language. In the following pages an attempt is made to reconstruct Wittgenstein's views on the acquisition of meaning as a possible critique of Chomsky and Piaget.

Wittgenstein indicates that we tend to consider the problem of language acquisition the way Augustine does, as

if the child is simply translating his awareness of the world into the language of the grown-ups:

> Augustine describes the learning of human language as if the child came into a strange country and did not understand the language of the country; that is, as if he had already had a language, only not this one.[38]

Wittgenstein here is criticizing the empiricist account of language which was effectively challenged by Chomsky (pp. 33-34 above) and Piaget (pp. 45-46 above). This view is based on the idea that a child learns to correlate words with things by a simple process of association. A word is repeated in the presence of the things to which it refers, and by such a repetition the child comes to see that the word means that thing. The child, according to "association-ism," first learns simple words, and after building up a store of simple words, he puts them together into simple sentences until he is finally able to speak the language.

Wittgenstein's alternative to the empiricist account of language acquisition can be reduced (with the risk of over-simplification) to two major claims: First, the child, according to Wittgenstein, learns to understand a linguistic expression by learning to use it within language games. This statement puts the emphasis on the notions of "use," "rule," and "game." Second, Wittgenstein contends that in order to understand how children learn language one must abandon the "associationist" claim that for every word there is a mean-ing. Let us look at these two claims closer in relation to Chomsky's and Piaget's views on the subject.

The child's understanding of the linguistic meaning of an expression is indicated by the child's ability to use the expression in a language game. Here "use" involves the child's tacit understanding of the rules for the use of an expression:

> The grammar of the word "knows" is evidently closely related to that of "can," "is able to." But also closely to that of "understands" ("Mastery" of a technique).[39]

Wittgenstein considers the analogy of game in order to answer the question that at what point can one say that the child has learned his language (or "mastered a technique"). Suppose we are teaching someone a board-game:

> When one shows someone the king in chess and says: 'This is the king.' This does not tell him the use of this piece--unless he already knows the rules of the game up to this last point: the shape of the king. You could imagine his having learnt the rules of the game without ever having been shown an actual piece. The shape of the chessmen corre- sponds here to the sound or shape of a word.[40]

Here, Wittgenstein seems to be implying that there is an initial stage in which the child learns to utter the words without learning the correct usage of the word. This stage corresponds to Piaget's (pp. 53-59 above) and Vygotsky's (pp. 81-86 above) descriptions of acquisition of meaning where words are "instruments" or "means" and not yet "symbols." Here, as Vygotsky puts it, "the child's usage of words may coincide with that of an adult's in its objective reference but not in its meaning" (quote cited on p. 83 above). The child might learn to utter a number of words in this way without knowing what they actually refer to. In other words,

learning language proceeds in a way similar to mastering any other kind of skill in using instruments.

Wittgenstein continues his game analogy:

> One can also imagine someone's having learnt the game without ever learning or formulating rules. He might have learnt quite simple board-games first, by watching, and have progressed to more and more complicated ones. He too might be given the explanation 'This is the king,'--if, for instance, he were being shown chessmen of a shape he was not used to. This explanation again only tells him of the use of the piece, because, as we might say, the place for it was already prepared.[41]

Wittgenstein's point here is that the child begins to learn "games" by beginning with simple games. Once a simple game is learned, a more complicated one is mastered and so on, until one learns a game like chess. During this process, the child can use what he learned about simple games in learning the more complex games. It is the function or use that gives the continuity between a simple form of "game" and the more complex ones.

In conclusion, the child does not learn the "game" (linguistic meaning) as suggested by "associationist" psychology, by memorizing a particular set of moves and actions in the sense that his learning will be restricted to the moves he observed. But rather he has learned the game by "mastering a technique," i.e., by extracting rules that enable him to originate novel moves. In the case of language learning, the child's mastery of his language also includes his ability to relate the simpler linguistic expressions and

language games to broader and only partially linguistic con-
stellations of behavior ("form of life").

The second claim of Wittgenstein's account of language
acquisition, as mentioned above (p. 92 above) is that in
order to understand how children learn language we must
abandon the prevalent view that for every word there is a
meaning. The following pages will analyze the broader impli-
cations of this thesis in terms of theory of meaning
implicit in structuralism of Saussure and Chomsky.

By asking frequently the question how did we first
learn this (or that) word, Wittgenstein wants to show that
there are many kinds of occasions from which we might have
acquired this or that word. When one realizes that there are
many contexts and situations which might have prompted our
first use of the word, one overcomes the tendency to look
for the meaning of a word or sentence as an object or thing
in itself. Wittgenstein is here rejecting the theory of
meaning implied in his early writings (cf. Tractatus) and
his earlier associates such as Russell and Moore, according
to which

> every word has a meaning, this meaning is corre-
> lated with the word. It is the object for which
> the word stands.[42]

In opposing this idea of meaning, Wittgenstein is also
rejecting ipso facto the theory of meaning implied in
Saussure's and Chomsky's theories. Saussure and Chomsky
start with determining meaning and then (perhaps, later on,
eventually) treat of its functioning with the context of

communication as eventuality. Wittgenstein proposes that instead of asking "What is the meaning of a word?" and thus falling into the trap of reification, one should ask for the use of the word.[43] Here reification of the meaning of words and sentences involves claiming that it is possible to use a word or sentence only if its meaning has been determined prior to its use. As was discussed in chapter two (p. 21 above), the meaning of linguistic sign according to Saussure is determined solely by the intralinguistic factors, i.e. relationship between signs within the system of la langue. Similarly, the meaning of sentences, according to Chomsky, is determined by the intralinguistic restrictions at the deep level of "competence." Wittgenstein asserts the opposite: we know or determine a word's meaning only if and because we know how to use it. That is, contrary to Saussure and Chomsky, Wittgenstein asserts (a) it is not that a sign carries some meaning and can eventually be used, and (b) any attempt at explaining the acquisition of the meaning of words must consider their function, i.e. use within the context of "the action into which it [the word] is woven."[44]

Let us take two examples in order to see that is involved in Wittgenstein's above assertion that meaning of language cannot be explained by the "naming" paradigm, that is, simply by showing how one form of expression can be substituted for another (such as a dictionary definition). The first example is taken from Rommetveit,[45] who demonstrates that even the meaning of a common noun like "cup," for which

a naming paradigm seems particularly promising, involves, from the very beginning of language acquisition, a network of "language games" in a framework of social interaction. A dictionary definition of "cup" such as "small, open container for beverages, usually bowl shaped and with handle" will fail to take into account the intricate interdependence among concepts, intralinguistic and extralinguistic contributions that can be observed in the acquisition of meaning.

To develop Rommetweit's illustration of the acquisition of the meaning of the word "cup," we may assume first that reference emerges out of some invariant relations between utterances including "cup" and a set of particular events. This set of events might include recurrent activities like drinking, washing, and pouring, in addition to requests for a particular cup, pointing to cups, and similar directly "deictic" experiences. The mere occurrence of the word form "cup" in such contexts, however, seems in itself insufficient as a basis for singling out its referent.

For one thing, other non-cup objects like bowls, glasses, and cans can participate in the same kinds of activities. Still other objects resemble cups in significant ways without participating in such events. And, more important, no explicit cues are provided by these situations to prevent association of word form with the complex activities in which cups are involved, such as pouring and drinking. At an early stage, the child, therefore, uses what Vygotsky calls "complexes" and "pseudo-concepts" (pp. 82-83 above). Here,

quite diverse objects and events such as a drawer in a cupboard and a mother drinking water from a fountain may be labelled "cup," the former because it has a handle and the latter because of the act of drinking. And if we proceed to examine the situations in which the two-word forms "cup" and "drink" are uttered in the child's environment, overlap rather than separation seems to be the rule. The sentences in which the two word forms occur, however, provide the child with some basis for a distinction. Both "drink" and "cup" occur in slots like "I want a . . .;" "The . . . fell down." Only "cup" though, will appear in contexts like "My . . . broke;" "I shall wash your . . . " And only "drink" will appear in contexts like "Father wants to . . . his coffee."

Separation of object from activity, however, is only one aspect of development of the stabilization of meaning. Subsequent or concommittant features involve a "switching off" of the subject for irrelevant attributes like color, while some specific aspects of form acquire distinctiveness. Thus, handle must be attended to in order to exclude glasses from the set of referents for "cup." Also, as Piaget has demonstrated, the subject must possess object permanence, so that the discovery of the object status of cups, their co-functionality as containers of beverages, etc., may take place as prerequisites to the acquisition of abstract and appropriate reference of the word "cup."

Each of these achievements, furthermore, can only be fully explored in a context of a whole network of related

emerging concepts and words. In order the the object status of "cup" to emerge, for instance, word forms like "pour," "drink," "wash" must be available to single out contextual activity aspects. Similarly, a specific word "glass" (in addition to the containers for beverages it denotes) must be available in order for a particular form property (the handle) to acquire distinctness. In general, therefore, we may conclude that relevant, invariant properties of cups acquire distinctiveness in the act of naming (a speech act) only to the extent that irrelevant, variant, contextual features are realized and singled out as focal features of reference for other words.

The point of the above example is that there is never a time in the acquisition of language at which the meaning of a word has a rigid or "fixed" boundary such as suggested by any simple naming paradigm. The child learns the meaning of a word by learning how to use the word in an appropriate situation, that is, by learning what to do with it. If we take the child to represent what Wittgenstein refers to as "simple language forms," then we see that in these forms, meaning is identical with use in the context of social interaction.

The second example in support of Wittgenstein's claim that in order to understand language one must abandon the view that for every word there is a meaning, is taken from Austin.[46] When philosophical difficulties arise about the relation of names to things, Austin notes, we must set about

analyzing the concept "name." Now, we might initially be tempted to be satisfied with a purely linguistic analysis, such as the formula "A name is a word that stands for a thing." But this would do no more than shift the obscurities surrounding the word "name" onto the phrase "stands for." Instead, Austin says, we should ask "How are words given a use as 'names,' and what is involved in so using them?" To take the example of "naming" in the utterance "I name this ship Queen Elizabeth II," we see that even a language game as familiar as ship naming may not be quite as self-explanatory as it appears. For how do we come to give names to ships at all? The very practice of naming ships current in the British culture has its idiosyneratic features of its own. And the whole pattern of communal attitudes and behaviors involving ships—and the whole network of language games associated with it—might take a different form in another cultural context where, for instance, all boats that are identical in shape and size were held in common and never received individual names, or where the act of naming a ship after a god or saint was held up to put under his sacred protection. The very nature and implications of our actual "naming" language games must therefore be seen in its relation to our broader "forms of life." In treating the words "Queen Elizabeth II" as a ship's name, we are acting in a way whose significance remains unaltered only for so long as the wider situation remains the same in all relevant respects.

To sum up, below the surface of a question like "What is a <u>name</u>?" lie deeper questions, namely: within the context of what linguistic activities (specifically, language games) are names given a use, and subsequently used; and what understandings do these activities conventionally create? And to go deeper again: below that linguistic question lies a broader and only partly linguistic question, namely, what overall constellations of behavior and attitudes (forms of life) are presupposed in the performance of these language games? And what changes in these patterns would deprive our current language game of their point, thus destroying the existing meaning of such expressions as "I name this ship Queen Elizabeth II?"

What goes for naming goes likewise for other linguistic activities, such as promising, identifying flowers by name, etc. In each case, the questions about meaning lead one on the question about intralinguistic relations; and these in turn to questions about how those are related to extralinguistic attitudes and actions. The unit of significance, according to this account, is not the single linguistic expression (word, phrase, sentence) but rather the overall constellation of behavior that determines (largely unspoken) the conventions for understanding that expression.

Up to this point in the present chapter, Vygotsky's and Wittgenstein's views on the development of language and meaning has been elaborated towards a critical account of Chomsky and Piaget. Such a critique has been developed

around the necessity of including into an adequate theory of language, the following: (a) the role assigned to the human beings as language users, (b) the emphasis given on the developmental aspects of language, (c) the importance of social and cultural context.

We conclude this chapter with a summary of the implications of Vygotsky's and Wittgenstein's insights in terms of these three criteria.

First, on the basis of Vygotsky's and Wittgenstein's view that language is essentially a social phenomenon, we must clarify the idea of the "social" in relation to the individuals as language users. In Saussure, Chomsky and Piaget, there seems to be such an implicit idea of the society; the society is the sum total of individuals or biological beings who live by themselves in a biological world and only from time to time associate with other individuals to achieve some end. This idea of society in relation to its individuals is reflected in Saussure's distinction between langue and parole where langue is conceived as a social institution (a code or system that dwells unconsciously in any member of the community). The same idea is also implied in Piaget's theory of concept formation as the subject's assimilation of the concrete world of objects, and Chomsky's notion of the "ideal speaker-hearer" who is biologically endowed with linguistic competence without the help of society or social interaction.

Contrary to this view, Vygotsky regards the subject within the framework of the socio-cultural environment, in that the social nature of "homo-sapiens" is part of the definition of the subject. Secondly, the idea about human onto and phylogeny is, first of all, according to Vygotsky, the evolution of its artificial tools. So, human language (i.e., "psychological tool") gives shape to the development of cognitive activity "in the same way the technical tool modifies the process of natural adaptation, giving shape to labor operations."[47] This means that society participates in the formation of human abilities in the form of "language environment," i.e., "in the shape of the abilities and knowledge that can be formed and realized with the help of this tool."[48]

Based on such a view of society and the subject, Piaget's assignment of a rather auxiliary role to language in the development of thought needs to be revised. As we have seen in the previous chapter, for Piaget thought is internalized actions. The beginnings of thought anticipate language and exist in what Piaget refers to as the "symbolic functioning." Language, according to Piaget, however, is a means of sharing and communicating about thought but is neither a means of thought nor formative in its development following the second year of life. Development of thought following the second year is explained essentially by structures characterized in logico-mathematical terms (sixteen binary operations of truth functional logic, groups, lat-

tices, etc.). Language, in turn, becomes but one facet of these structures, losing its functional character that was essential to the sensorimotor period. In retaining Piaget's account of the development of language and thought during the sensorimotor stage, we must, however, assign language a more prominent role following the second year in cognitive growth. Once the child succeeds in internalizing language as cognitive instrument, it becomes possible for him to represent and systematically transform the regularities of experience with greater power and flexibility. Accepting such a weak form of Piaget's cognitive hypothesis, we can also, with Vygotsky, claim that thought and language have separate genetic roots, that they develop independently yet interact at certain stages, that there is a prelinguistic phase of thought and a preintellectual phase in speech.

When judged from the standpoint of the three criteria mentioned at the beginning of the chapter, Vygotsky's and Wittgenstein's views amount to a rejection of a Chomskian theory of language. Chomsky contends that linguistic structures are innate and that the course of language development is determined solely by factors within the "linguistic system." Thus, the problem of accounting for knowledge about formal relations among sentences ("grammar") is granted priority of consideration to performance, as individual's use of language in real life situations. Chomsky, like Piaget, acknowledges similarities between his grammar of rules and systems of mathematical logic. Thus, however ele-

gant the theory of linguistic competence is it does not account for speaker's use of sentences for purposes of communication. Vygotsky and Wittgenstein both emphasize the need for a theory of communicative acts which will take this aspect of language into consideration. Vygotsky, as we have seen, concentrates upon the actual use of language in its behavioral context; the problems of "competence" and "performance," in this sense, must be viewed as an undivided whole which cannot be analyzed as two separate phenomena.

Similarly, Wittgenstein demonstrated that the rule-following which is relevant to linguistic behavior is not the rule-following which is made possible by the factors within the linguistic system (i.e., grammar) as Chomsky claimed, but rather a rule-following which is learned within social and cultural context. Thus, in contrast to Chomsky, Wittgenstein views "grammar" from a dynamic perspective which necessarily involves reference to the world of performance. And the study of grammar becomes how we come to use our language to speak about the world of everyday affairs. Given this understanding of "grammar," grammar tells us what everything is.[49]

In connection with this point, Chomsky's claim that grammatical or "deep" structures stand in a one-way relationship to the production of meaningful utterances must also be abandoned. If, as Wittgenstein demonstrates, the meaning of words is dependent upon their use in significant verbal utterances (language games), it is obviously diffi-

cult to claim, as Chomsky does, that performance has no "direct" relationship to those conditioning factors which generate language. This again implies that we can hardly establish a productive study of semantics by adding such a study to the study of syntax as Chomsky attempts to do. With S. Hook,[50] we suggest that rather than advance an innate syntactical structure which gives rise to meaning, Chomsky needs to redefine the status and role of his model of language and to look for the key to the nature of meaning within the performance itself.

In conclusion, this chapter attempted to confirm the special role of language as distinctive and irreducible element in the development of human behavior. The units of learned linguistic behavior are the constellations of behavior Wittgenstein called "forms of life" and these are also the source of meaning for both linguistic and nonlinguistic actions.

This is not to say, however, that every item of human linguistic activity must be viewed by subsuming it under the rule or convention-bound essence of human communication. As will be discussed in the following chapter, even the category of "rule conforming behavior" is too narrow to cover all human language behavior. Maybe it is Merleau-Ponty's analysis of speech and speech perception that could explicate what Wittgenstein left undefined but called "the limits of the world." As the following chapter attempts to show,

the boundaries of the world cannot exclude the subjective and creative aspects of language.

FOOTNOTES

[1] S. Toulmin, "Concepts and the Explanation of Human Behavior," in T. Mischel (ed.) Human Action, pp. 79-80.

[2] L. Wittgenstein, Philosophical Investigations, p. 4.

[3] L. Vygotsky, Thought and Language, p. 56 ff.

[4] Ibid., p. 148.

[5] L. Vygotsky, "Development of Higher Functions" in Psychological Research in the USSR, p. 78.

[6] P. F. Strawson, "Review of the Philosophical Investigations," in G. Pitcher (ed.) Wittgenstein and the Philosophical Investigations, p. 62.

[7] L. Wittgenstein, Philosophical Investigations, p. 8.

[8] Ibid., p. 226.

[9] Ibid., p. 153.

[10] Ibid.

[11] S. Toulmin, "Ludvig Wittgenstein" in Encounter, 1969, 32 (1) pp. 70-71.

[12] J. Flawell, Developmental Psychology of Jean Piaget, p. 155.

[13] L. Vygotsky, Thought and Language, p. 50.

[14] J. Piaget, "The Attainment of Invariants and Reversible Operations in the Development of Thinking," in Social Research, 1963, 30:294.

[15] L. Vygotsky, Thought and Language, p. 44.

[16] Ibid., p. 128.

[17] Ibid., p. 49.

[18] Ibid., p. 49-50.

[19] Ibid., p. 62.

[20] Ibid., p. 65.

[21] Ibid., p. 130.

[22] Ibid., p. 76.

[23] A. A. Leontev, "Inner Speech and the Process of Grammatical Utterances," in <u>Soviet Psychology</u>, 1969, VIII, No. 3, p. 12.

[24] L. Vygotsky, <u>Thought and Language</u>, p. 148.

[25] R. Rommetveit, <u>Message Structure</u>.

[26] J. Searle, <u>Speech Acts</u>.

[27] Ibid.

[28] P. Strawson, "On Referring," in A. G. N. Flew (ed.) <u>Essays in Conceptual Analysis</u>.

[29] A. A. Leontev, <u>Soviet Psycholinguistics</u>, Paper at 20th International Congress of Psychology, Tokyo, 1972.

[30] L. Wittgenstein, <u>Blue Book</u>, p. 16.

[31] Ibid., p. 17.

[32] Ibid.

[33] L. Wittgenstein, <u>Philosophical Investigations</u>, pp. 11-12.

[34] Ibid., p. 11.

[35] N. Gier, <u>Wittgenstein, Heidegger, and Merleau-Ponty</u>, p. 5.

[36] S. Toulmin, "The Concept of 'Stage' in Psychological Development," in T. Mischel (ed.) <u>Cognitive Development and Genetic Epistemology</u>, p. 45.

[37] S. Toulmin, <u>Human Understanding</u>, pp. 467-68.

[38] L. Wittgenstein, <u>Philosophical Investigations</u>, pp. 15-16.

[39] Ibid., p. 59.

[40] Ibid., p. 15.

[41] Ibid.

[42] Ibid., p. 2.

[43] Ibid., p. 20.

[44] Ibid., p. 5.

[45] R. Rommetveit, <u>Words, Meanings, and Messages</u>, p. 125.

[46] Mentioned in S. Toulmin, "Concepts and the Explanation of Human Behavior," in T. Mischel (ed.) <u>Human Action</u>, pp. 74-75.

[47] A. A. Leontev, "Social and Natural in Semiotics," in J. Morton (ed.), p. 123.

[48] Ibid., p. 127.

[49] L. Wittgenstein, <u>Philosophical Investigations</u>, p. 116.

[50] S. Hook, "Empiricism, Rationalism, and Innate Ideas," in S. Hook (ed.) <u>Language and Mind</u>, p. 165.

A DYNAMIC CONCEPTION OF COMMUNICATION BASED ON

THE SUBJECTIVITY OF LINGUISTIC MEANING:

MERLEAU-PONTY'S CRITIQUE OF CHOMSKY AND PIAGET

Merleau-Ponty's views on language appeared at about the same time as the emergency of Wittgenstein's post-Tractatus views on the nature of language as a rule-governed activity embedded in and expressive of "forms of life," and with the Austinian theory of speech acts. While the followers of Wittgenstein emphasize a communicative view of language within the broader concept of social action, they tend to overlook[1] the subjective and creative aspects of authentic or originary speech which Merleau-Ponty proposed to explore. Put simply, the dilemma created by the post-Wittgensteinian views is as follows: if a necessary condition of a linguistic communication is its conformity to an already shares structure of rules and conventions which alone enable us to succeed, wherein lies the subjective power to create utterly novel domains of meaning and understanding that in turn create further resources for expression?

The present chapter attempts to show that the subjective dimension of language as explored by Merleau-Ponty is essential to developing a dynamic concept of language as communication. More specifically, it will be argued that what Merleau-Ponty has accomplished in opening the question

of language within the context of the study of man's being-in-the-world, is to make evident the full import of the following point: language is a way in which man exists in-the-world and that the subject-object dichotomy is no more adequate in accounting for the domain of language than it is for other modes of being-in-the-world. If this claim is true, that is, if Merleau-Ponty's phenomenology of speaking can establish both the intersubjectivity and the objectivity of language, then the authentic or originary speaking which Merleau-Ponty proposed to explore need not be rendered mysterious as suggested in the above mentioned dilemma. The subjective approach to language can then be said to be both compatible with and necessary for the objectivity in language.

Merleau-Ponty's dual approach to language shares with Piaget, Toulmin, Vygotsky and Wittgenstein the fundamental assumption underlying the present dissertation, namely that an understanding of language in its earlier, simpler form is necessary for an understanding of language in its completed forms. To this end, Merleau-Ponty analyzes la parole originaire, i.e., the first words of an infant, the first words of primitive man, the original understanding conveyed by authors who surpass traditions, etc. Understanding the genesis of la parole, starting with its simpler forms, leads to numerous insights similar to those of Vygotsky and Wittgenstein. We recognize, for example, that thought and language coincide in these simple forms. This leads to a better

understanding of the relation between a word and what it refers to. In authentic speech, as it was argued in relation to Strawson's view on the subject (p. 88 above) what is primary is the act of referring, since reference does not follow recognition, it is the recognition. It also leads to an understanding of the communicative act of speaking where the thought verbalized by a speaker can no longer be considered a representation of prior relations: his thought is his speech (la pensée dans la parole).

In addition to the main idea of thought-speech equation, the genesis of authentic speech leads us to two cardinal ideas which have been lacking in views of language defended by the structuralism of Saussure, Chomsky, and Piaget. They are: the crucial role the intentionality of the body-subject plays in speech, and the idea that speech has its origins in social action and life-world.

The present chapter, then, first discusses the above mentioned three ideas of Merleau-Ponty's phenomenology within the context of and as a result of his employment of the method of the "phenomenological reduction." Secondly, the insights gained from Merleau-Ponty's phenomenology of speaking will be discussed in relation to the views of language analyzed in earlier chapters.

In the preface to Phenomenology of Perception, Merleau-Ponty defines phenomenology as "the study of essences."[2] It tries to give a "direct description of our experience as it is, without taking account of the causal

explanations which the scientist . . . may be able to pro-
vide."[3] The primary task of phenomenology is to describe
the phenomena of perception as "a return to things them-
selves."[4] This, according to Merleau-Ponty also reveals the
true meaning of the method of phenomenological reduction.
The phenomenological reduction does not mean for Merleau-
Ponty, Husserl's return to "essences" as they are perceived
by a "pure" or "transcendental" consciousness which is
removed from the world. Nor does it mean a return to the
objective, conscious world of ours, and our "original"
experience of them. Original experience is defined as
primary perception which is " a non-positing, pre-objective
and pre-conscious experience."[5] Merleau-Ponty describes
"pre-objective" world as "the natural setting of, and field
for all my thoughts and all my explicit perceptions," which
"is there before any possible analysis of mind."[6] The pre-
reflective I or the "knowing organism" is nothing but our
body as meaning giving force of specifying objects. To per-
ceive, then, becomes a function which belongs to the body;
it is "to render oneself present to something through the
body."[7]

In the case of the specific problem of speech percep-
tion, reduction must enable us to give a description of
speech within the outline given above: first, one must show
that like any other human activity, speech too is an essen-
tial part of our primary experience. Secondly, we must show
that speech is constituted on the level of "pre-objective,"

original body-subject. Only if this can be shown to be the case, then a true (i.e., undistorted) description of speech perception is possible, and this description shows itself to be an employment—and a legitimate one—of the method of phenomenological reduction. Merleau-Ponty employs this method for speech perception in the chapter six of his Phenomenology of Perception, entitled "The Body as Expression, and Speech."

In his usual way of arguing, Merleau-Ponty starts by exposing the common mistakes of the two great and mutually hostile camps of "empiricist" and the "intellectualist" theories. For the "empiricist," according to Merleau-Ponty,[8] speech is not a genuine action, for there is no speaking subject in any meaningful sense. Instead, there is some depersonalized phenomenon called "speech" which consists of traces left in the nervous system by words heard or seen. The word, for the empiricist become just one more item in the causal network; the "meaning" is reduced to some psycho-physical verbal image or to an "appropriate" response to stimulus and/or associations.

The other extreme approach to language is what Merleau-Ponty calls "intellectualism."[9] According to such a theory, meaning is decided by an internal thought process and imparted to the components of language, words and grammatical forms, through some as-yet-unclarified process. Again, in the case of intellectualism, meaning lies not in and with the word but, as it were, "behind" the word, in the thought.

The word becomes a merely external sign for an intellectual operation that proceeds independently of the elements of language. Intellectualism suggests an activity on the part of the speaker, but ultimately can offer no account of precisely how it is that the thought process it portrays ultimately produces a word that is meaningful.

Merleau-Ponty now applies his critique to the fundamental assumption shared by the seemingly irreconcilable positions of "empiricism" and "intellectualism": that the word has no meaning:

> As far as speech itself is concerned, intellectualism is hardly any different from empiricism, and is no better able than the latter to dispense with an explanation in terms of involuntary action. Once the categorial operation is performed, the appearance of the word which completes the process still has to be explained, and this will be done by recourse to a physiological or psychic mechanism, since the word is a passive shell. Thus we refute both intellectualism and empiricism by simply saying that <u>the word has a meaning</u>.[10]

In the above summarized critique of empiricist and intellectualist theories of speech, Merleau-Ponty emphasized that both of these theories conceive the speaking subject as a disembodied consciousness. The act of speech, in these theories is understood either as a purely physical process or as a "verbal image" that would be present to a pure consciousness prior to act of speaking. In either case, the word has no meaning. Merleau-Ponty's response to empiricism and intellectualism is centered now upon the explication of the formula: the word has a meaning. He does this not in the form of a philosophical argument, but by asking us to pay

attention (without any prejudices) to something very familiar--what is it to express ourselves verbally. He reminds us that one must affirm that the word has a meaning once one recognizes the fact that the appearance of a word qualitatively changes a person's situation in relation to other people and things. Both a speaker's and a hearer's situation is modified with the appearance of a word. In the speech act of naming a thing (in Wittgenstein, a "language game") the person's relation with that thing becomes "fixed" in a manner in which it had not previously been fixed. Here Merleau-Ponty draws on experimental work by Piaget, who demonstrates that "for the child the thing is not known until it is named, the name is the essence of the thing and resides in it on the same footing as its color and its form."[11] If meaning were imparted to words by a thought process intended to devise representations of what is found in the world, argues Merleau-Ponty, then the child would already know the things that he names. Furthermore, the child would be aware of the source of the meaning, namely, the internal thought process, and therefore could not regard the name of the thing as a quality of the thing.[12]

The listener's situation is also modified with the appearance of a word. There are instances in which words heard (or read) alter the meaning of a person's world. Here, one cannot say that the process of communication is one of coding and decoding and that the words are linguistic devices designed by our consciousness to call up the same

thought in another consciousness by way of association. In such instances the words have thoroughly altered the thoughts of the hearer (or reader). The appearance of the word itself alters the hearer's (or reader's) situation in relation to things and other people. Merleau-Ponty offers the child uttering a first word, the lover revealing his feelings, and the writer who "reawaken primordial experience anterior to all traditions" as illustrations of such an event.[13]

The word has a meaning. How does the word with its meaning come into being? In order to answer this question Merleau-Ponty locates speech as a spontaneous use of the body. Just as the actual motion of the body follows from a prior dynamic situation or orientation of the body, so the speech follows from a prior dynamic orientation of the body in the speaker's world of meanings. In the case of the speech the phenomena toward which and away from which the body is already oriented are words, and these words are inhabited by meaning:

> [Words] are behind me, like things behind my back, or like the city's horizon round my house. I reckon with them or rely on them, but without having any 'verbal image' . . . I do not need to visualize the word in order to know and pronounce it. It is enough that I possess its articulatory and acoustic style as one of the modulations, one of the possible uses of my body. I reach back for the word as my hand reaches towards the part of my body which is being pricked: the word has a certain location in my linguistic world, and is part of my equipment. I have only one means of representing it, which is uttering it, just as the artist has only one means of representing the work on which he is engaged: by doing it.[14]

The process involved in comprehending "a word as a ges-
ture"[15] as described in the above quote provides Merleau-
Ponty with an opportunity to precise the sense in which an
act (a gesture or a word) brings the thing that is pointed
to from the periphery of the world to the center. A gesture
finalizes the situation in the sense that previously the
person may have been thinking about various qualities of the
thing and now replaces in his attention such abstract quali-
ties with the thing itself as present. Translated into
words, this gesture could say: "There, that is what I have
been thinking about." Similarly, the spoken word is not the
mere transference of a thought into an audible vehicle, but
that "[the] linguistic gesture, like all the rest, delin-
eates its own meaning."[16] It marks a qualitative change in
the world, which includes the speaker's body and things. The
spoken word itself acts.

Two steps of the phenomenological reduction are
employed in the above discussion. Merleau-Ponty first
attempted to show that like any other activity, speech too
is an essential feature of our primary experience within the
original content of perception. Secondly, more specifically,
he described language as "constituted" on the level of pre-
objective original body-subject. Language, the phenomeno-
logical reduction shows, is one of the currents of man's
being-in-the-world, and as such, finds its source in man's
original bodily intentionality directed toward words. Words

are phenomena. They have meaning, and this meaning is not static, but radically dynamic.

Before discussing the implications of the above summarized conception of language in relation to the views discussed in the earlier chapters it is necessary to introduce a distinction that is accepted by Merleau-Ponty in his writings on linguistic expression. It is the distinction between "authentic" (la parole originaire) as opposed to "second order" (or "empirical") speech (la parole secondaire).[17] The latter makes up the general run of daily language in the sense of "pre-established signs." The all important former category, alternatively referred to as "authentic," "productive," "creative" speech, is the "primary process of signification" which has so far been discussed above. It is according to Merleau-Ponty, the ground or the original possibility of the second-order, conventionally determined language use.

Keeping the above discussion in mind, the following pages will discuss the insights gained from Merleau-Ponty's phenomenology of speech in relation to issues Piaget, Vygotsky and Wittgenstein haven't adequately treated. First, a comparison between Piaget's analysis of the "pre-linguistic" thinking and Merleau-Ponty's notion of the "pre-reflective" is in order. The purpose of such a comparison is to give a critical account of Piaget's mistaken notion of the minor role attributed to language in the development of thinking.

A first resemblance between Merleau-Ponty's and Piaget's views should be noted in the latter's implicit recognition of the pre-reflective during the sensorimotor period. As we have discussed in the second chapter, the original relation between the child and the environment is one of lack of differentiation, and the development takes the form of progressive differentiation between the two. The description, by Piaget, of the development of sensorimotor period could thus be regarded as an explication of Merleau-Ponty's pre-reflective experience. The notion of the pre-reflective, as was discussed earlier, refers to a direct experience of the world prior to reflection and the appearance of subject-object dichotomy. The intentionality, as that directedness of consciousness, produces the natural and pre-predicative unity of the world.

Similarly, Piaget would claim that all sensorimotor actions and assimilatory schemes have an intentional character.[18] That is, he demonstrates that even before language begins, the young child reacts to objects not by a mechanical set of stimulus-response situations but by an integral assimilation to schemes of action which impress a direction on his activities and include the satisfaction of a "need" or "interest" (see pp. 48-49 above). To assimilate an object to such a scheme is to confer a meaning on it which at this stage shows itself in the form of perceptual signals, indices and early practical directed activities.

The similarities between Piaget's and Merleau-Ponty's thinking, however, end at this point. For Piaget, the achievements of sensorimotor period are considered as a transitory stage on the way towards the formal-deductive thought, whereas for Merleau-Ponty the pre-reflective is the ever existing source of the mind's creativity. Merleau-Ponty argues that there is no reason to suppose that our childhood thinking is obliterated when we reach adulthood. This early experience which we carry with us throughout life cannot be ignored if we are to understand how we perceive, think, communicate, etc.[19]

Merleau-Ponty's possible objection to Piaget's above point that the pre-reflective consciousness can be dispensed with can be summarized as follows: the formal-logical thinking which Piaget emphasizes, according to Merleau-Ponty, is inevitably a second-order schematization, a structure which originates in and refers to a contact with the world which precedes attempts at formalization. It is, in Merleau-Ponty's opinion, the great error of the empiricist and intellectualist theories (Piaget is an intellectualist) to fail to recognize this fundamental fact revealed by phenomenological reduction. Recognizing the role of the pre-reflective as the background against which all acts of interpretations stand out, will enable us to place reflective thought within its proper context.

The above objection which is stated in general terms also applies to Piaget's notion of the role language plays

in thinking. As we have seen before (chapter two), Piaget regards language as an expression of the more generalized symbolic functioning. Now since, according to Piaget, it is the development of operations through the internalization of actions which constitutes the basic aspect of the development of thinking, the development of language is primarily determined by the extent of the child's progress in the development of operational structures. From the standpoint of Merleau-Ponty's theory, this view is nothing other than a reformulation of the intellectualist theory that was criticized above (p. 115). In opposition to Piaget's notion of the relation between language and thinking, Merleau-Ponty maintains that language accomplishes thinking.[20] In order to understand Merleau-Ponty's position here, it is necessary to consider the previously mentioned (p. 120 above) distinction between "authentic" and "empirical" speech. This distinction can be reformulated as a distinction between the "spoken word" (la parole parleé), that is, language which is the depository of constituted meanings, and the "speaking word" (la parole parlant), which is the origin of the spoken word.[21] The latter, according to Merleau-Ponty, is the active and creative power of speech which goes beyond already constituted meanings. Thus, when Merleau-Ponty asserts that language accomplishes thinking he is referring to the speaking word (Heidegger's Rede),[22] by which the speaking person organizes his words in the light of "meaning" in order to actualize this meaning. Meaning both precedes the

utterance, since it guides it, and follows it, since it is its culmination. When we speak the "speaking word" we constitute language itself, thus translating the silent world of the pre-reflective into the world of speech. It is through the mediation of the speaking word that we gain contact with the pre-reflective world.

This thesis is opposed to Piaget's contention that language is a mere accompaniment of thought. Merleau-Ponty reveals that language is the medium by which thought articulates itself. The relation between thought and word is a living process; thought is born through words in that the speaking word does not merely "stand for" a ready-made thought, but articulates the thought.

The above conclusion resulting from the reflection upon Merleau-Ponty's emphasis on the pre-reflective basis of experience has important implications in terms of a reexamination of the traditional (i.e., Saussurean) meaning of the sign (pp. 14-15above). Merleau-Ponty points out that at first glance, it may appear that words are arbitrary signs agreed upon by man in order to communicate about the world. The existence of a number of languages may be offered as evidence. This view of language, according to Merleau-Ponty derives from a consideration of only "the conceptual and delimiting" meanings of words, the dictionary meanings that, although based upon spoken language, also represent an effort to fix usage and thus play a role of arbitrary authority. But if the "emotional" content of words is taken

into consideration, that content which is evident in poetry, one recognizes that words are not mere arbitrary signs agreed upon by man in order to represent things in the world, but rather present emotional essences extracted from the world. When speaking of the "emotional content" of words, Merleau-Ponty indicates that the reference is not to a stock of adopted conventional responses to the world. Emotion must be taken in its literal sense as a motion carrying man beyond himself, beyond the world as man has organized it and has taken control of it. Just as emotional gestures do not "stand for" a hidden meaning behind the facade, just as there is an intermingling of appearance and essence in the expressions of fear, anger and joy, there is a compenetration of mutual implication of the signifier and signified in the incipient moments of expression. In the phenomenological study of the origin of language, Merleau-Ponty states,

> We must recognize a primordial process of signifi-
> cation in which what is expressed does not exist
> apart from the expression and the signs themselves
> execute their sense . . . This incarnate sense is
> the central phenomenon of which body and mind,
> sign and significance are abstract moments.[23]

Merleau-Ponty's above suggestion, as we understand it, is not to deny that signs operate as a conventional agency, but rather to emphasize that they operate without the perfect one-to-one correspondence. The sign has a primordial, one-to-many relationship to its meaning, it is not a correspondence between specific signifier and "states of mind."[24]

In this sense, the act of speaking becomes not a designating

or pointing process but the perception proper of that which

is existentially present to the perceiving subject:

> The word and speaking must somehow cease to be a
> way of designating things or thoughts and become
> the presence of thought in the phenomenal world,
> and, moreover, not its clothing but its token or
> its body. There must be, as psychologists say, a
> 'linguistic concept' (Sprachbergrif) or a verbal
> concept (Wortbegriff), a 'central inner exper-
> ience, specifically verbal, thanks to which the
> sound, heard, uttered, real or written, becomes a
> linguistic fact.'

> We find here, beneath the conceptual signification
> of the words, an existential meaning which is not
> only rendered by them, but which inhabits them,
> and is inseparable from them.[25]

The notion of the "verbal concept" evoked in the above

quote, brings Merleau-Ponty's view of thought-language rela-

tion very close to that of speech and thought identity as

explored by Vygotsky's in his notion of "inner speech." Let

us elaborate this point.

In the above quote and elsewhere,[26] Merleau-Ponty iden-

tifies inner speech with "verbal concept." Here, the point

to be emphasized is the intentional dimension of the inner

speech. As we have discussed in the previous chapter, the

process of inner speech organizes thought adopting it to

varying contexts and modes of communication in order to meet

a variety of demands to make oneself understood both to

others and to oneself. As such inner speech was interpreted

as a prototype of what the ordinary language philosophers

like Austin and Searle would call "speech acts." Vygotsky's

formulations thus clearly indicate that inner speech is

fundamentally outer-directed and is an intention toward the

world that can only be assessed against the background of whatever constitutes the intersubjectively established social-cultural reality at the moment of the use of the speech act (pp. 85-88 above).

Insofar as its inner form is a reflection in language of the unique world view and life style of a culture, Vygotsky's inner speech is comparable to authentic speech as bodily gesture as described by Merleau-Ponty. Inner speech too manifests a surface structure of nuanced variations which can be as individual as bodily styles (see Vygotsky's examples p. 85 ff above). At its creative, authentic level, language operates, according to Merleau-Ponty, with the same transparent fluency as my body precisely through its inner form, whereby words and expressions recommend themselves to me as I bring my intentions to an expression appropriate to the situation.[27] This "gestural sense which is immanent in speech"[28] is the "verbal concept" both Vygotsky and Merleau-Ponty emphasize in their writings. Just as the expressive gesture does not simply "stand for" a hidden sense behind its front, so the word, for both Merleau-Ponty and Vygotsky, does not simply stand for its concept. Word and concept are experienced together, as word-concept (word-meaning) or gestural meaning.

Merleau-Ponty's concept of "thought within speech" (la pensée dans la parole) when referred back to its "corporeal projection" as discussed above, renders communication not as an act of transmitting fixed meanings, but the act of mean-

ing itself--to speak is to "signify." This is, the speaker's thought in his speech. The listener then hears a thought-speech, and if the speech replies adequately to his expectations, he does not conceive of the spoken words as signs, his mind is fully occupied by the flow of the thought. That is, neither the speaker nor the listener conceive the meaning of what was said <u>as meaning</u> until after the speech--the meaning was there at every instant yet was no more posited as such than the words uttered were represented <u>as words</u>. (See Rommetviet's example above, pp. 97-99). Communication, in this sense, cannot be explained as a re-creation of mental representations by the listener; understanding of the speaker's message takes place in the same way that we understand his gestures, i.e., there is a renewal of the speaker's expressive intention in that the listener does not give the message their meaning, he does apprehend new and original thoughts--all is not known ahead of time by the listener.

Merleau-Ponty also shares Vygotsky's and Wittgenstein's rejection of an ideal language and agrees with them that meaning is use:

> I begin to understand the meaning of words through their place in a context of action, and by taking in a communual life.[29]

Merleau-Ponty holds, like Vygotsky and Wittgenstein, that language is not egocentric but rather intersubjective:

> Language leads us to a thought which is no longer ours alone, to a thought which is presumptively universal, though this is never the universality

of a pure[30]concept which would be identical for every mind.[30]

This means that there is no such a thing as private language, for "even solitary thought does not cease using the [intersubjective] language which supports it."[31]

Perhaps the most striking similarity between Merleau-Ponty and Wittgenstein lies in their shared idea that language has its origins in social action and life-world. The intersubjectivity of language, according to Merleau-Ponty, requires a "taking up a position in the world" so that linguistic meaning transcends the private intention to speak: "The spoken word is a gesture, and its meaning a world."[32] This "world" or Lebenswelt, is the "universal styles shared by all perceptual beings."[33] Merleau-Ponty's idea of the life-world is similar to Wittgenstein's conception of language as a "form of life" (see pp. 90-91 above). For both Wittgenstein and Merleau-Ponty words are like gestures: They come to possess their meaning because of the situation of "world" in which they are expressed. Without this "world" there would be no significance. A word, like a smile, is a kind of natural expression but with a "conventional" meaning. A smile, for instance, in the orient or an Oriental face may indicate anger or malice whereas in western culture its meaning is more joyful.[34] Word, too, are dependent upon context and purpose within the horizon of the "life-world," and like gestures, derive their significance only in the context of this background. Similarly Wittgenstein believed that to imagine a language presupposes a cultural style

(e.g., a caste system)[35] which is expressed as the form of life. Therefore, one can say that Merleau-Ponty's "life-world" and "style of life" have in common with Wittgenstein's concept of "form of life" in that they both refer to the necessary conditions of man's existence upon which all linguistic meaning is constituted.

In sharing such a functional, relative and material $\underline{a}$ $\underline{priori}$, both Merleau-Ponty and Wittgenstein affirm that there are no pre-existent meaning prior to men--no universal or ideal language--public or private. Meaning is "autochthonous,"[36] i.e., it is neither subjective nor objective, idealistic or realistic, not a function of simply the subject's mind nor of external physical object, but it is a product of both.

Merleau-Ponty also shares with Wittgenstein what might be called a "social" behaviorism. As we have seen earlier in the present chapter (pp. 115-118 above) Merleau-Ponty takes behaviorism (i.e., "associationalism"), especially in its rejection of intentionality, as a principal antagonist of phenomenology. Wittgenstein, too, cannot be called a behaviorist in any of the traditional sense that involve physicalism, reductionism, atomism, and external relations (see pp. 33-34 and p. 68). With their skepticism about the autonomy of private mental states, and their common emphasis on human action in the world, it would be unwise to maintain, however, that Merleau-Ponty, Wittgenstein and Vygotsky are not behaviorists in any sense. They might be called "social"

behaviorists, in that they emphasize on rules, reasons, and intentions (instead of causes), which have their primary locus in socio-linguistic activities. Such a behaviorism differs radically from the classical form in that it is non-reductionist and assumes the concepts of intentionality, internal relations and acausalism.

In summary, the present chapter discussed the insights gained from Merleau-Ponty's speech in relation to the views of language developed in the previous chapters. Conclusions drawn from Merleau-Ponty's ideas on the pre-reflective basis of experience, thought and speech identity and the authentic speech as gesture are compared and contrasted to Piaget's, Vygotsky's and Wittgenstein's views. It has been shown that the subjective dimension of language as defended by Merleau-Ponty is not necessarily in conflict with the view that the essential nature of language is a rule-governed activity embedded in forms of life. On the contrary, the intersubjectivity as revealed in the phenomenology of speaking is indispensable part of a coherent theory of linguistic communication. Merleau-Ponty shows us that the "boundaries of the world," require first that <u>man as a subject</u>, the I of speaking and listening, exists. The subject, the I, constructs the reality of the world and that the world cannot be known independently of the I that constructs it. In this sense, every act of consciousness is a consciousness of something. And language is among the most important intentional threads that attach us to the world. Once this is

realized, that is, once it is known that language is a way in which man exists-in-the-world, then speech will appear <u>by definition</u> as a unitary phenomenon devoid of subject-object dichotomy, of "symbolic activity" and "natural sign."

[1] M. Coyne: "Merleau-Ponty on Language: An Interrupted Journey Toward a Phenomenology of Speaking," _International Philosophical Quarterly_, 1980, 20 (1) pp. 308-326.

[2] M. Merleau-Ponty, _Phenomenology of Perception_, p. VII.

[3] Ibid.

[4] Ibid.

[5] Ibid., p. 242.

[6] Ibid., pp. X-XI.

[7] M. Merleau-Ponty, _The Primacy of Perception and Other Essays_, p. 242.

[8] M. Merleau-Ponty, _Phenomenology of Perception_, pp. 174-175.

[9] Ibid., pp. 175-176.

[10] Ibid., p. 177.

[11] Ibid., pp. 177-178.

[12] Ibid., p. 178.

[13] Ibid., p. 179.

[14] Ibid., p. 180.

[15] Ibid., p. 184.

[16] Ibid., p. 186.

[17] Ibid., p. 178, n. 1 and p. 179, n. 1.

[18] W. Mays, "Piaget: Formal and Non-Formal Elements in the Child's Conception of Causality," in B. Curtis, W. Mays (eds.) _Phenomenology and Education: Self-Consciousness and Its Development_, p. 66 ff.

[19] N. Bolton, "Piaget and Pre-Reflective Experience," in B. Curtis, W. Mays (eds.) _Phenomenology and Education_, pp. 32-33.

134

[20] R. L. Lanigan, Speaking and Semiology: Merleau-Ponty's Phenomenological Theory of Existential Communication, p. 176 ff.

[21] P. E. Lewis, "Merleau-Ponty and the Phenomenology of Language," in J. Ehrmann (ed.) Structuralism, pp. 22-23.

[22] Richard L. Lanigan, Speaking and Semiology, p. 175.

[23] M. Merleau-Ponty, Phenomenology of Perception, p. 166.

[24] Ibid., p. 188.

[25] Ibid., p. 182.

[26] M. Merleau-Ponty, Signs, p. 88.

[27] Ibid.

[28] M. Merleau-Ponty, Phenomenology of Perception, p. 179.

[29] Ibid.

[30] M. Merleau-Ponty, Primacy of Perception and Other Essays, p. 8.

[31] Ibid.

[31] M. Merleau-Ponty, Phenomenology of Perception, p. 184.

[33] M. Merleau-Ponty, Primacy of Perception, p. 6.

[34] M. Merleau-Ponty, Phenomenology of Perception, p. 189.

[35] L. Wittgenstein, Blue Book, p. 134.

[36] M. Merleau-Ponty, Phenomenology of Perception, (French ed. p. 18, 26).

CONCLUSION

The present study aimed to be a critique of the Chomskian model of language considered as formal, static, synchronic relations among linguistic units. This model is called "structuralist" in the sense that it shares, with the structuralist movement, the epistemological principle of holding itself to the interior of the enclosure of the universe of signs. This principle regards language as an autonomous entity of internal dependencies in abstraction from the functional, developmental and the subjective aspects of language.

In contrast to the Chomskian thesis, this study defended a model which depicts language as an intentional activity through which human beings understand each other and the world around them. This viewpoint is called "functional" or "communicative" since it takes the essential function of language to be communication. Linguistic communication, according to this model, does not exist in abstraction from the functional, historical and subjective dimensions of life but rather occurs within a world of concrete social-historical background. Human language, when viewed so, becomes not a self-enclosed world of abstract relations between signs, but rather a dynamic, living process through which human beings communicate with one another.

135

In arguing against the structuralist model of language, this study introduced two major postulates. First, it is through language that we come to make sense of our world. That is, knowledge originates in human action or praxis whose prime instrument is language. Second, that an understanding of the origins and development of language (both in phylo-and-ontogenetic sense) is necessary for an understanding of language as a completed system of signs. The argument central to the study was that if these two claims were sustained, then language could not be regarded as a self-enclosed entity relying solely on the internal dependencies of the system of signs. Language would become rather, a vehicle for establishing meaning and understanding, originating in action or the interaction between the intentionality of the self and the world. Any consideration concerning the essential nature of language would then include: (a) communication as the goal of language; (b) history as the production of man and culture; (c) primary intentionality of the language.

The first chapter was a summation of the structuralist model of language. It drew attention to a close parallel between Saussure's and Chomsky's conceptions of language. By way of introduction to the following chapter, it also depicted a contrast between the Chomskian idea of innate knowledge and Piaget's central idea of knowledge as praxis.

The second chapter was an attempt to apply the two cardinal ideas of Piaget's genetic epistemology to our know-

ledge of language and contrast them favorably with Chomsky's theory of linguistic competence. Piaget's genetic epistemology implies that knowledge originates in action or praxis and that an understanding of the origins and development of knowledge is necessary for an understanding of knowledge itself. In arguing for these two ideas from the standpoint of our knowledge of language rather than knowledge in general, we attempted to refute Chomsky's assertion that linguistic competence is based on an innate, fixed system of rules. In contrast to Chomsky's view, Piaget proves that language originates in action and develops gradually as a continuation of the child's activities by alternative sets of symbols ("indices," "symbols," "signs," etc.).

The following chapters further explored the implications of the idea of language as an integral part of a developmental theory of action. The third chapter criticized Piaget's reluctance to fully recognize the consequences of his own theory of action in relation to social and communicative nature of language. The arguments for "inner speech" (Vygotsky), "language-games" (Wittgenstein), and "speech acts" were discussed in favor of the social and communicative basis of language. Through these ideas it was emphasized that the origin and growth of language should be sought neither in the innate mechanism the child is born with (Chomsky), nor merely in his interaction with the inanimate world of objects (Piaget), but rather in those idio-

syncratic but shared understandings which he evolves during his encounters with others.

The third chapter also discussed the idea of language as "tool." Instead of comparing language to a system in which words derive their meaning from the relationship to the other linguistic parts (Saussure) or from the "mapping" of the syntactic descriptions upon the linguistic imput (Chomsky), it is stressed, with Wittgenstein and Vygotsky, that we recognize the instrumental value of linguistic signs and compare them to tools. Just as tools are made so as to supplement each other and to be used in combination, words may be created so as to supplement other words or to be used in combination with other words. The very fact that some words can only be used in combination with other words need not surprise us any more than the fact that certain tools are only used in combination with other tools. By concentrating on the instrumental value of words one could account for language as an integrated whole without the need for presupposing that words form parts of a <u>langue</u> or that their meaning must be accounted in terms of "deep" structures.

The fourth chapter emphasized the primary intention of language in connection with Merleau-Ponty's thesis that language accomplishes thinking. Here, it is argued that his theories of "authentic speech" and "speech as gesture" situate language as a dynamic part of man's being-in-the-world which makes knowledge possible: Meaning and understanding (in and through language) arise from action or, more pre-

cisely, the interaction between the intentionality of the self and the world.

In sum, under the light of Piaget, Vygotsky, Wittgenstein, and Merleau-Ponty's insights, one must revise Chomsky's assumptions concerning "language essence" and "language use." Chomsky had said:

> If we hope to understand human language and the psychological capacities on which it rests, we must first ask what it is, not how or what purpose it is used.[1]

Now we are in a position to make a different presupposition than that of Chomsky's, namely that the sign is to be used for communication purposes. Following the observations of Piaget, Vygotsky, Wittgenstein, and Merleau-Ponty at the level of ontogeny, it is reasonable to assume that our ancestors, prior to the evolvement of the use of linguistic signs, were in possession of a number of different ways of communicating, for example, communication by vocalization, gesturing, movements of limbs and eyes, and the taking various bodily postures. Thus it is not at all unreasonable to assume that these earlier more primitive forms of communication evolved into our highly refined linguistic signs. If so, an understanding of the use and the comprehension of signs requires an understanding of their necessary antecedents, namely, the forms of communication in these simpler forms of bodily expressions.

With a similar line of reasoning, concerning grammatical rules, one might also hypothesize that the linguistic signs used in early stages did not contain specific marks to

express the singular and the plural or various types of cases, or that of predication (Vygotsky). Thus it is reasonable to assert that the grammatical rules, like linguistic signs, have evolved gradually from earlier, simpler forms rather than being, from the onset, a "fixed" or innate finished product with all the complexities described in Chomsky's Syntactic Structures.
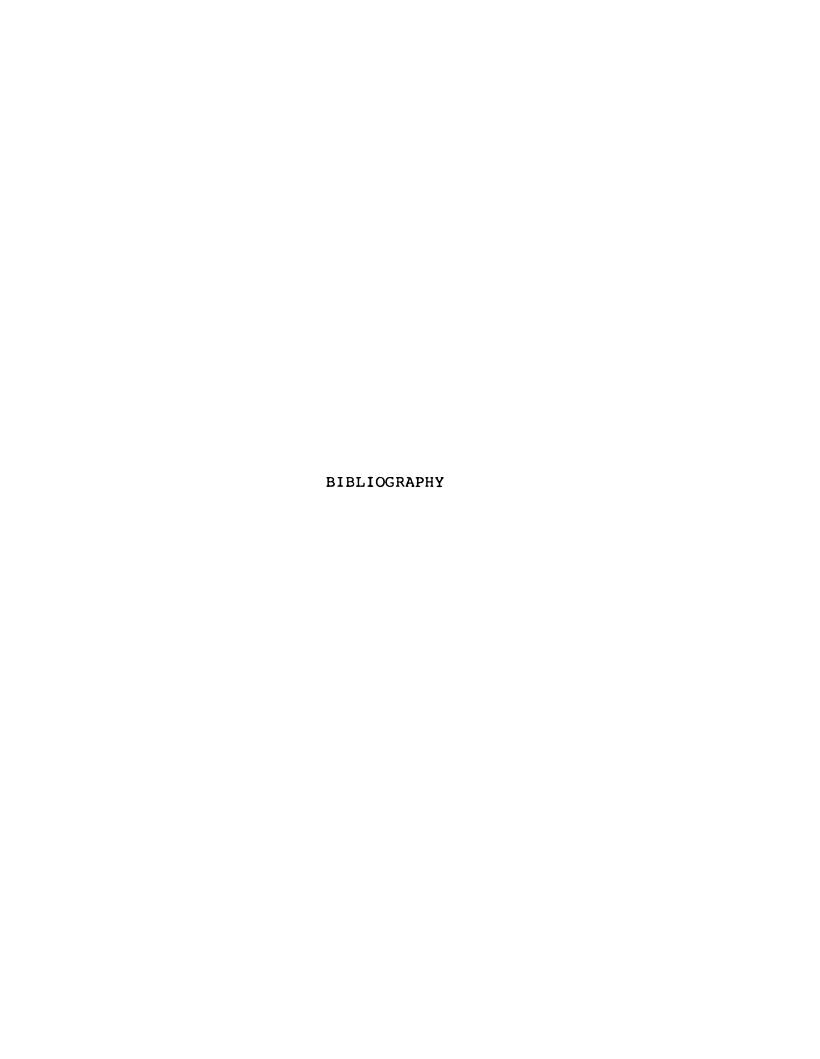
Just as Piaget has shown that at ontogenetic level the infant possesses a variety of concepts prior to the acquisition and use of linguistic signs, at the phylogenetic and cultural level it is highly reasonable to believe that among our ancestors individuals existed who were not in possession of the use of linguistic signs, but who nevertheless were capable of reacting to a variety of situations in such a manner that we should be ascribing them the use of "indices," "symbols" or "complexes" as described by Piaget and Vygotsky. It is also highly reasonable to believe that these simple forms of understanding might develop into, and give meaning to linguistic signs. If so, it is highly unlikely that words denoting concepts derive their meaning from a complicated "deep" structure (Chomsky) or from interrelationships existing between linguistic signs alone in a system (Saussure).

The present form of the Chomskian theory of language, with its overemphasis on linguistic competence, tends to distort the study of language development towards the preoccupation with syntax. The future status of Chomsky's view,

both in terms of its importance for theory and research, will largely depend upon its reconsideration of the crucial role the communicative skills play in determining the actual language use.

FOOTNOTE

[1]N. Chomsky, <u>Language and Mind</u>, p. 62.

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143

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