Problems in the Sociology of Language

An Overview

When we hear the sociology of language spoken of as a border area, we probably think first of an area joining the two disciplines which the words immediately call to mind: linguistics and sociology. On closer examination, however, we see that this area [*Problemkreis*] extends to a considerable number of other disciplines. To mention only the issues which scholars have been interested in lately and which are therefore the subject of this essay: The influence of the language community on the language of the individual is a central problem of child psychology. And, as we shall see, the question of the relationship of language to thought (a question which is still being debated) can hardly be raised at all without reference to animal psychology. The recent debates on sign language and phonetic language owe a good deal to ethnology. And, finally, psychopathology—with the theory of aphasia, on which Bergson was already trying to base far-reaching conclusions—has thrown light on questions that are of importance to the sociology of language.[1]

The central problems of philology and sociology come together most naturally and obviously in the question of the origin of language. And, leaving aside the frequently voiced reservations as to method, many of the most important studies in these disciplines converge on this point. At any rate, this question proves to be a vanishing point toward which the most diverse theories can be oriented without doing them violence. But first a few words about the reservations surrounding this question. They are taken from Henri Delacroix's standard work, *Le langage et la pensée,* which is a kind of encyclopedia of the psychology of language in general.

As we know, origins have a tendency to remain obscure. . . . The history of language does not lead us back to the origins, since language is itself the precondition of history. The history of language deals only with highly developed languages, which have a weighty past about which we know nothing. The origins of specific languages are not identical with the origin of language itself. The oldest known languages . . . have nothing primitive about them. They show us only the changes to which languages are subject; they do not teach us how they came into being. . . . The only basis available to us is to analyze the conditions that make language possible—the laws of linguistic development—and to observe the evolution of language. . . . Discussion of the problem, therefore, must be shelved.[2]

These cautious remarks are followed by a résumé of the constructions that scholars have used in trying to throw a bridge across this void of knowledge. The most popular of these—notwithstanding its primitive form, which has long since been demolished by scholarly criticism—gives access to the central questions of current research.

"Man himself invented language from the sounds of living nature," says Herder.[3] In this he is merely taking up some ideas from the seventeenth century; he was the first to be aware of the historical agitation of that century, which Hankamer, in an admirable study, has dealt with in his speculations on primal language and the origin of all language.[4] One need only look at a page of Gryphius and the other Silesian poets—Harsdörffer, Rist, and their Nuremberg followers—to see what resonance the purely phonetic side of language attained at that time.[5] Moreover, the onomatopoeic theory of the origin of language has always been the most immediately convincing to uncritical reflection. Academic criticism has made strong efforts to downplay the importance of the onomatopoeic factor, though it has not said the last word on this aspect of the origin of language.

Karl Bühler has recently devoted an article specially to this question. In it he writes: "Herder and others have maintained that in earlier times language was used for descriptive purposes."[6] Taking this assertion as his theme, Bühler attempts to identify the factors which have significantly impeded the occasional onomatopoeic propensities of languages. Although he refers in passing to factors in the history of language, taking up Lazarus Geiger's assertion that "language can be said to show a tendency to approach objects descriptively only in its more recent strata,"[7] Bühler's argument is primarily systematic in nature. It does not occur to him to question the onomatopoeic possibilities of the human voice. On the contrary, he could not rate them more highly. To him, the list of these possibilities seems, by and large, merely to comprise so many "missed opportunities." Onomatopoeic activity in historical language, Bühler notes, is not allowed to influence the totality of the word. It can only manifest itself at isolated points within the word. This is the case today, just as it was earlier: "Let us

picture two paths. That on the left leads to a predominance of the onomato-poeic principle, and that on the right leads toward symbolic representation. No one will deny that onomatopoeic elements are, at best, merely tolerated by all known languages, including that of present-day pygmies. It is there-fore highly improbable that language followed the left path for a time, only to turn back and efface all traces of the initial tendency—as one would be forced to conclude from the evidence of all known languages."[8] Bühler thus reaches the standpoint which Charles Callet has summed up in a vivid im-age: "Onomatopoeic word-forms do not explain a single language; at most they explain the sensibility, the taste, of a race or a people. . . . They appear within a fully developed idiom the way Chinese lanterns and paper-chains might be seen hanging in the foliage of a tree on the day of a festival."[9]

Lévy-Bruhl proposed certain variants of the onomatopoeic theory in his studies on the mentality of primitive peoples. Some of these have had a more stimulating effect on scholarly debate than Karl Bühler's cautions reflections. Lévy-Bruhl emphasizes the vigor of these peoples' languages, pointing to their graphic character, whose origins we will discuss below.

> The need for description may seek its fulfillment by means of *Lautbilder,* as the German explorers called them—that is, delineations or reproductions of that which people wish to express, obtained by means of the voice. Westermann tells us that the language of the Ewe tribe is richly endowed with the means of reproducing an impression directly through sounds. This endowment bespeaks their almost irresistible tendency to imitate all they hear or see, and in general all that is perceived—especially movements. But these vocal imitations or re-productions, these *Lautbilder,* also comprehend sounds, odours, tastes, and tactile impressions. . . . Properly speaking, they are not onomatopoeic inven-tions; rather, they are descriptive vocal gestures.[10]

Lévy-Bruhl is convinced that it is only by conceiving primitive languages as descriptive vocal gestures that we can understand the magical qualities at-tributed to language by primitive peoples, and his account of this idea is central to his theory of primitive languages.

The influence of Lévy-Bruhl's theories has extended far beyond France; they have also left their mark in Germany. It will be enough here to remind readers of Ernst Cassirer's philosophy of language.[11] His attempt to relate primitive linguistic concepts to the form of mythical concepts, rather than to that of logical concepts, is clearly influenced by Lévy-Bruhl.

> What holds these two kinds of conception, the linguistic and the mythical, to-gether in one category, and opposes both of them to the form of logical thought, is the fact that they both seem to reveal the same sort of intellectual apprehension, which runs counter to that of our theoretical thought processes. . . . Instead of a widening of intuitive experience, we find here its extreme con-striction; instead of expansion that would lead through greater and greater spheres of being we have here an impulse toward concentration; instead of ex-

tensive distribution, intensive compression. This focusing of all forces on a single point is the prerequisite for all mythical thinking and mythical formulation.[12]

It was the same concentration and compression which caused Lévy-Bruhl to ascribe a special quality of concreteness to the languages of primitive peoples. "Since all this is expressed by pictorial concepts, . . . the vocabulary of these 'primitive' languages must have been of a richness barely hinted at by ours."[13] These same complexes, in which the linguistic magic of primitive peoples has its root, are also given special attention by Cassirer. "The mythical conception has been called 'complex' to distinguish it from our theoretical-analytical approach. Preuss, who coined this term, points out, for example, that in the mythology of the Cora Indians . . . the apprehension of the night sky and day sky as a *whole* must have preceded that of the sun, moon, and individual constellations."[14] Thus Cassirer. But Lévy-Bruhl expresses a similar idea, going further in the same direction and saying that the primitive world knows no perception "which is not contained within a mystical complex, no phenomenon which is only a phenomenon, no sign which is only a sign. How could a word be nothing but a word? Each objective form, each plastic image, each drawing has mystical qualities. And therefore linguistic expression, which is an oral drawing, necessarily has them as well. This power is not confined to proper names, but adheres to all words, no matter what kind."[15]

Scholars criticizing the ideas of Lévy-Bruhl had a choice between two starting points. They could invalidate the distinction he tries to draw between the higher mentality and the primitive one by questioning the traditional concept of the former, which has positivist features. But they could also question Lévy-Bruhl's special conception of the primitive mentality. Bartlett followed the first course in his *Psychology and Primitive Culture;*[16] Leroy, the second in his *Raison primitive.* Leroy's study is of immediate interest, since he uses the inductive method with utmost precision without adopting the positivist approach, which, for Lévy-Bruhl, provided the most obvious criteria for evaluating phenomena. His critique begins by pointing to the fluctuations which have characterized the linguistic equivalents of the "primitive" mentality in the course of ethnological research.

It was not so long ago that the idea of the primitive conjured up the outline and demeanor of a fabulous Pithecanthropus who was more concerned about his food supply than with "mystical participation." This savage, whose language must have resembled the onomatopoeic utterances of the gibbon, was thought to have limited means of linguistic expression. And the alleged poverty of his vocabulary was taken as a sign of the primitive mentality. . . . Today, by contrast, we know that the languages of primitive peoples are distinguished by the richness of their vocabulary and the wealth of their forms. And now this richness is regarded as a sign—almost a stigma—of "primitive" behavior.[17]

Yet Leroy's attack, in this theoretical context, is directed less at Lévy-Bruhl's factual observations than at his interpretation of them. For example, on Lévy-Bruhl's attempt to attribute strikingly concrete qualities of language to the primitive mentality, he writes:

> If the Lapps have separate words to designate reindeer which are one, two, three, five, six, and seven years old, or if they have twenty words for ice, eleven for cold, forty-one for the various types of snow, and twenty-six verbs for the different kinds of frost and thaw, this abundance results not from any special intention but from the vital necessity of creating a vocabulary meeting the demands of an arctic civilization. The Lapp distinguishes hard, loose, or melting snows linguistically only because in reality they provide different conditions for his actions.[18]

Leroy never tires of pointing out how questionable it is to compare only the customs, ideas, and rituals of such peoples to those of more civilized ones. He urges us to investigate the special economic, environmental, and social conditions under which behavior which at first sight appears contrary to reason turns out to be fitting to its purpose. He is all the more right to do so since the uncritical desire to detect symptoms of prelogical behavior in very divergent linguistic phenomena can obstruct the view of simpler, but no less instructive, forms of behavior. Against Lévy-Bruhl he quotes Bally's comment on the special language spoken by Kaffir women when no one else is present: "Is this case really so different from that of a French legal official who talks like everyone else while he is at home, but writes gibberish incomprehensible to many of his compatriots when composing a report?"[19]

Leroy's important study is purely critical in nature. His primary objection, as already noted, is to positivism, of which the "sociological mysticism" of Durkheim's school seems to him to be merely an unavoidable corollary.[20] This point of view is particularly evident in the chapter entitled "Magic," in which he counters the psychological interpretation of certain magical notions among primitives with an argument which is as simple as it is surprising. He insists that one must take account of the degree of reality, or of evidentiality, attributed to the objects of magical beliefs by the community upholding such beliefs—and perhaps not only by that community. Leroy cites Europeans' accounts of certain magical occurrences—accounts which he rightly considers conclusive. For even if these were based on perceptions distorted or altered by suggestion, they would still refute the specifically primitive causation of such beliefs. Although nothing is further from Leroy's intention than to sketch a theory of his own, it is apparent from time to time that he wants to protect ethnological findings from any interpretation (including those favored by romantically minded people and certain theologians) according to which the so-called primitives are nothing other than a fallen species of an originally uncorrupted human ancestor

or—expressed more circumspectly—degenerate descendants from periods of high culture.

It should not be supposed, however, that Leroy's incisive and often justified critique will cause Lévy-Bruhl's theories to vanish from the debate without trace. Sociology cannot isolate itself methodologically from any of Lévy-Bruhl's concerns; they affect a great many disciplines. And not least affected by the one discussed here—the magical use of words—is psychopathology. It is undeniable that Lévy-Bruhl's idea is intimately bound up with the scientific problems encountered in this field—hence the high esteem in which it is held. For the theory about verbal magic is inseparable from his main theoretical tenet: that primitive people do not have a fully developed consciousness of identity. A limited consciousness of identity—however it may be explained—is frequently found in psychoses. And when Lévy-Bruhl adduces a ceremony in which one and the same bird is sacrificed at the same time by spatially distant members of the same tribe—the bird being expressly described as the same one in the different places—that is a type of conviction which is not uncommon in either dream or psychosis. In these states it is possible to experience the identity—not the likeness or similarity—of two different objects or situations. This observation is, however, subject to one reservation. Just as we owe the psychological explanation to the psychosis, do we not owe the historical explanation to the primitive mentality (and therefore indirectly, perhaps, also to psychosis)? Lévy-Bruhl does not attempt such an explanation. Still more dubious than the opposition that Lévy-Bruhl sets up between the primitive and the historical mentality—an opposition that Leroy sets out to refute—is the lack of any mediation between these opposites in Lévy-Bruhl. The most disastrous influence of the school of Frazer[21] on his work was that it denied him access to the historical dimension.

In the argument between the two scholars, there is one point which has especially broad implications. It concerns the problem of the language of gesture. Its most important vehicle is the hand. According to Lévy-Bruhl, the language of the hand is the oldest known to us. Leroy is much more cautious. Not only does he see sign language as a conventional rather than a picturesque form of communication, but he regards even its dissemination as a result of secondary factors, such as the need to send messages over long distances where sound will not carry, or to communicate noiselessly with a hunting partner. He insists that sign language is not to be found everywhere, and cannot therefore serve as a link in a chain leading from the earliest expressive movements to language. Leroy has little trouble refuting Lévy-Bruhl's contentions, many of which seem to go too far. But it would not be so easy to dispose of Marr's simpler and more prudent observation: "Primeval man, who did not possess any articulated language, was happy if he could point to or draw attention to an object, and to do this he had a partic-

ularly well-adapted tool, the hand, which distinguishes man so sharply from the rest of the animal kingdom. . . . The hand or hands were a person's tongue. Hand movements, facial expressions, and in some cases body movements as well were the only available means of linguistic creation."[22] From this standpoint Marr arrives at a proposition intended to replace the fantastic elements in Lévy-Bruhl's theory with constructive ones. It is, he argues, "entirely inconceivable that the hand could have been replaced as the producer of a mental value—language—before it was replaced by tools as the producer of material goods, or that an articulated language of sounds could have taken the place of hand language at that time." Rather, "the foundation for the creation of a sound language" must have been laid "by some process of productive work. . . . Without defining the nature of that work more precisely, one can now put forward the general proposition that articulated language could not have emerged before mankind's transition to productive work with the aid of artificially fashioned tools."[23]

Marr has attempted in his writings to introduce a number of new and generally rather strange ideas into language studies. Since these ideas are too important to be ignored yet too controversial to be adequately discussed here, it will be useful to refer to the brief sketch of them given by Vendryes. He writes:

> This theory originated in the Caucasus, whose languages Marr knows better than anyone else. He has tried to group them and to identify the relations between them. This task led him outside the Caucasus, since he believed he was able to discern a surprising kinship between these languages and that of the Basques. He concluded that the languages of the Caucasus and of the Basques, which had survived in mountainous regions little exposed to incursions from outside, now represent the isolated remnants of a large family of languages which existed in Europe before the arrival of the Indo-European peoples. He proposed that this group be called the Japhetic languages. . . . In immemorial times, he argues, the peoples belonging to this language family had extended in an unbroken chain of related tribes from the Pyrenees . . . to the remotest regions of Asia. Within this vast area, the Japhetic languages were the forerunners of the Indo-European tongues. . . . The significance of this hypothesis is obvious.[24]

Marr's theory nowhere denies its links to dialectical materialism. The most important of these is its attempt, in linguistics, to invalidate the concept of race, and indeed of peoples, in favor of a history of language based on the movements of classes. The Indo-European languages, he argues, are not the languages of any particular race. Rather, they represent "the historical stage—while the Japhetic languages represent the prehistoric stage—of one and the same language. . . . Wherever the Indo-European language came into being, its substrate was a certain ruling class. . . . And it appears that what was disseminated with this ruling class was not a concrete, ready-

made Indo-European language, or a common primal language, which never existed, but a new typological formation of language, which mediated the transition from the prehistoric, Japhetic languages to the historical, Indo-European ones."[25] The essential element in the life of language thus appears to be the link between its evolution and certain social and economic groupings which underlie the groupings of social strata and tribes. This makes it impossible to speak of the languages of entire peoples in relation to the past. Rather, typologically distinct languages can be observed in one and the same national formation. "In a word, it would be unscientific and lacking in any real foundation to approach this or that language of a so-called national culture as the native language of the whole population, used by the mass of the people. For the present, the national language as a phenomenon independent of social strata and classes is a fiction."[26]

Current linguistics, the author constantly reiterates, has little inclination to seek out the sociological problems concealed in the languages of oppressed strata of populations. Indeed, it is remarkable how seldom linguistics, including the most recent linguistics, has concerned itself with argot, except from a purely philological point of view. A work pointing the way for such a study has been in existence for the past twenty years, but has received little attention. I am referring to Alfredo Niceforo's *Génie de l'argot*. The work's basic methodological idea is to distinguish argot from the vernacular, but its characterization of the latter constitutes its sociological kernel. "The vernacular as used by the common people is, in a sense, a class characteristic that is a source of pride for its group. At the same time, it is one of the weapons with which the suppressed people attacks the ruling class it sets out to displace."[27] "In the hatred which finds expression in the vernacular more than in other contexts, the whole pent-up strength of the common people bursts forth. Victor Hugo said of Tacitus that his language has a lethal power of corrosion. But is there not more corrosive power and more poison in a single sentence of the language of the lower orders than in all the works of Tacitus?"[28] In Niceforo, therefore, the vernacular appears as a class characteristic and a weapon in the class struggle. "In terms of method, one of its dominant features is the shifting of images and words toward a vividly material realm, and another is the analogous tendency to create transitions from one idea to another and from one word to another."[29] As early as 1909, Raoul de la Grasserie pointed to the tendency among the populace to favor images from the realms of people, animals, plants, and even of inanimate things when expressing abstract ideas.[30] Niceforo's contribution was that he recognized the function of argot (in the broader sense of the term) as an instrument in the class struggle.

Modern linguistics has gained more indirect access to sociology in so-called word-thing studies [*Wort-Sach-Forschung*]. These were initiated in the periodical *Wörter und Sachen*, founded by Rudolf Meringer and now

consisting of sixteen volumes.[31] The procedure used by the group of schol-
ars led by Meringer is distinguished from the traditional method by its espe-
cially close attention to the things designated by words. And here, an inter-
est in technology is often prominent. From this school we have philological
studies on tillage and breadmaking, spinning and weaving, cattle breeding
and animal harnessing—to mention only the more primitive economic pro-
cesses.[32] Although the focus is frequently less on the language community
than on its means of production, one does follow necessarily from the other.
Concluding his study, Gerig states:

> Words and things migrate together. . . . Through the mediation of the migrating
> labor force, the word can advance in isolation from the thing. . . . In earlier pe-
> riods, this migrant workforce was (and today, to some extent, it still is) such an
> important factor in the economic life of every country that a wealth of techni-
> cal terms must have moved with it from country to country. All studies of agri-
> cultural and craft terminologies will have to pay close attention to this impor-
> tant effect. . . . Not only are words from their native lands transplanted with
> the workers to foreign regions, but foreign terms are brought back with them
> to their homeland.[33]

Yet the subjects and problems discussed historically in such works are
also encountered by scholars in a modern form today. They assume this
form not only in academic study but still more in practice. First and fore-
most are the ways in which technologists—who have a special interest in
developing an unambiguous vocabulary—have tried to standardize termi-
nology. Around 1900, the Verband Deutscher Ingenieure [German Engi-
neers' Association] set to work on a comprehensive technical lexicon.
Within three years, index cards for more than three-and-a-half million
words had been collected. But "in 1907 the association's managing commit-
tee calculated that, with the present number of personnel, it would take
forty years to get the manuscript of the technical lexicon ready for printing.
The work was abandoned after it had swallowed up half a million
marks."[34] It had become apparent that a technical dictionary should be
structured in terms of its subject matter, arranged systematically. An alpha-
betical sequence was obsolete. It is also worth mentioning that the most re-
cent survey of the discipline of philology deals extensively with these latest
problems of demarcation. In an article on "the place of language in the
structure of the total culture," Leo Weisgerber—the current editor of
Wörter und Sachen—has made a close study of the connections between
language and material culture.[35] Incidentally, the attempts to standardize
technical terminology have set in motion the most serious endeavors to cre-
ate a world language—an idea whose lineage, of course, goes back hun-
dreds of years. This lineage, in its turn, especially its ramifications in logic,
are another subject which would merit separate investigation by sociolo-

gists. The Viennese branch of the Gesellschaft für Empirische Philosophie [Society of Empirical Philosophy] has given new impetus to logic studies.

Detailed information on this can be found in a recent study by Carnap.[36] Sociologists interested in the findings of the logicians are made aware from the start that logicians are concerned solely with the representational functions of signs. "When we maintain that logical syntax treats language as a calculus," writes Carnap, "we do not mean by that statement that language is nothing more than a calculus. We mean only that syntax is concerned with that part of language which has the attributes of a calculus—that is, it is limited to the formal aspects of language. A genuine language has other aspects in addition to this."[37] Logicians treat the representational form of language as a calculus. Oddly, they nevertheless claim that they should be called "logicians."

> The prevalent opinion is that syntax and logic . . . are fundamentally theories of a very different type. . . . In contrast with the rules of syntax, the rules of logic are [thought to be] nonformal. In the following pages, in opposition to this standpoint, the view that logic, too, is concerned with the *formal* treatment of sentences will be presented and developed. We shall see that the logical characteristics of sentences . . . are solely dependent on the syntactic structure of the sentences. . . . The difference between syntactic rules in the narrower sense and the logical rules of deduction is only the difference between *formation rules* and *transformation rules,* both of which are completely formulable in syntactic terms.[38]

Of course, the links in the chain of proof indicated here are not taken from verbal language. Rather, Carnap's "logical syntax" operates with the so-called languages of coordinates, two of which he has compiled. The first—the "language" of elementary arithmetic—contains only logical signs, while the second—the "language" of classical mathematics—also includes descriptive signs. The delineation of these two forms of calculus provides the basis for a "syntax of any possible language," which coincides with general scientific logic. According to this logic, translatability into the formal mode of speech (that is, into syntactic sentences) is shown to be the criterion by which the genuine sentences of the logic of science are distinguished from the descriptive sentences [*Protokollsätze*] of empirical science, on the one hand, and from other "philosophical sentences"—let us call them metaphysical—on the other. "The sentences of the logic of science are formulated as syntactic sentences, . . . but no new domain . . . is thereby created. The sentences of syntax are in part sentences of arithmetic, and in part sentences of physics, and they are called syntactic only because they are concerned with linguistic constructions. . . . Syntax, pure and descriptive, is nothing more than the mathematics and physics of language."[39] The division of philosophy into scientific logic and metaphysics as defined here is

supplemented by a further definition offered by logicians: "The supposititious sentences of metaphysics . . . are pseudo-sentences; they have no logical content."[40]

Logicians were not the first to debate the logical syntax of languages. Before them, Husserl had made a first attempt to clarify these problems, and a second attempt at the same time.[41] What Husserl calls "pure grammar" appears in Bühler's fundamental work (which refers to him in many instances) as "sematology." Its program calls for "attention to be paid to the axioms obtainable by reduction . . . from the results of successful linguistic research. D. Hilbert calls this procedure axiomatic thinking, and advocates its adoption . . . by all disciplines."[42] Although Bühler's interest in axioms goes back ultimately to Husserl, at the beginning of his book he cites Hermann Paul and Saussure as prime sources of "successful linguistic research." From the former he gains an understanding of the benefits that even the leading empiricist could derive from a more appropriate theoretical underpinning of linguistics than the one supplied by Paul; the latter's attempt to reduce this foundation to physics and psychology belongs to a past era. In referring to Saussure, he is less concerned with that thinker's fundamental distinction between a *linguistique de la parole* [linguistics of the spoken word] and a *linguistique de la langue* [linguistics of language] than with his "methodological complaint." "He knows that philology forms the core of a general sematology. . . . But he cannot yet draw from this liberating idea the strength to state . . . that the primary data of linguistics do not include physics, physiology, or psychology, but comprise only linguistic facts and nothing else."[43]

To demonstrate these facts, the author constructs an "organon model of language" which opposes the individualism and psychologism of the nineteenth century and marks a return to the objective approach to language instituted by Plato and Aristotle. This does a great deal to accommodate sociological interests. Using the organon model, Bühler identifies language's three elementary functions as declaration, evocation, and representation [*Kundgabe, Auslösung, Darstellung*]. These are the terms he used in his 1918 article on the sentence.[44] In his new *Sprachtheorie*, these terms are replaced by "expression" [*Ausdruck*], "appeal" [*Appell*], and "representation." The main emphasis in the article is on the third factor. "A generation ago, Wundt gave human sound-language a central position among the forms of "expression" of animals and human beings. . . . Anyone who has come to realize that expression and representation have different structures faces the task . . . of carrying out a second comparative study, in order to place language at the center of all the other forms concerned with representation."[45] The fundamental concept that Bühler arrives at in this article will be discussed shortly. But what meaning does the concept of evocation or appeal have in the organon model just mentioned?

In exploring this concept, Bühler follows the example of Brugmann,[46] who set out to demonstrate various kinds of pointing or showing, which are distinguished by the different demonstrative pronouns. In an analogous way, various kinds of actions are distinguished by reference to different verbs. Using this approach, the author assigns a special area to the evocative, appealing, or signaling function of speech, which he defines as the demonstrative field. His method of determining its center by the terms "here," "now," and "I," and of tracing the path of language from pointing at real objects to "pointing by ideas" [*Deixis am Phantasma*], cannot be briefly summarized. It is enough to say that "although the index finger, the natural tool of the *demonstratio ad oculos,* is replaced by other means of showing, . . . nevertheless it and similar aids can never be simply discarded."[47] There are, however, limitations to their scope. "Sometimes today we come across a modern myth of the origin of language which . . . presents demonstrative words as if . . . they were the original words of all human language. . . . But it must be emphasized that pointing [*deixis*] and naming are two classes of words which must be clearly distinguished; we are not entitled to assume that—in the Indo-European languages, for example—one has its origin in the other. . . . Showing words and naming words . . . must be kept distinct, and no speculations on origin should eliminate the difference between them."[48]

Bühler's theory of naming words, like that of showing words, is a field theory. "Naming words function as symbols and receive their specific meanings . . . from their synsemantic contextual field. This book proposes . . . a dual-field theory."[49] The importance of this theory lies not least in the special contribution which Bühler's categories, though developed for methodological reasons, can make to historical studies. The process of the history of language on the largest scale takes place within these fields. "Within the broad development of human language, we can imagine that single-class systems of deictic utterances were the first stage. But then came the need to include what was absent, and that meant severing the direct link of utterance to situation. . . . The liberation of linguistic expression from the field of showing—from the *demonstratio ad oculos*—had begun."[50] But precisely to the extent that "linguistic expressions are freed in their representational content from moments of the concrete linguistic situation, language signs are subjected to a new order. They are assigned field values within a symbolic field."[51] The emancipation of linguistic representation from the given language situation is the basis on which the author seeks to achieve a unified understanding of the origin of language. In this he breaks with the conspicuous reticence generally observed by the French school (Delacroix, for example) in the face of this problem. One looks forward with interest to the modern "myth of the origin of language," based on the findings of his language theory, which Bühler has announced for the near future.

While the studies presented here display greater or lesser affinities to progressive social science, it is inevitable under present conditions that regressive tendencies should also emerge. In this essay, we shall not ask whether it is merely fortuitous that these latter tendencies concern themselves rather infrequently with the sociology of language. It can hardly be denied that affinities exist between certain academic disciplines on the one hand and political attitudes on the other. Racial fanatics are rarely found among mathematicians. And the conservative stance which is frequently encountered in philology, at the opposite pole of the *orbis scientiarum,* seems mostly to go hand-in-hand with the high-mindedness and human dignity so movingly exemplified by the Grimm brothers.[52] Even a work like Schmidt-Rohr's *Sprache als Bildnerin der Völker* has not been entirely able to escape this tradition, although the concessions it makes to nationalist ideas are only just compatible with it.[53] The work is divided into two main sections, the first entitled "Das Sein" (Being) and the second "Das Sollen" (What Must Be). The attitude of the second part is summed up by the sentence: "The people"—understood as a natural datum—"must become a nation"—meaning a cultural unit founded on language. And this demand exerts a persistent influence on the attitude of the first part of the book. It is manifested in the irrationalism which is the norm in nationalistic literature. It imposes on the author a voluntarist philosophy of language which enlists the support of arbitrary will and fate, rather than acquiring through a historical study of language the knowledge called for by a genuine linguistic philosophy. The comparative analysis of the vocabularies of various languages proves a too narrow basis for the universal thematics at which the author aims. Thus, he does not succeed in endowing his overall views with the concreteness we find in the best studies in the *Wörter und Sachen* archive. The following sentence typifies the limits not only of Schmidt-Rohr's social insight but, still more, of his linguistic theory, which may owe something to Humboldt[54] but certainly nothing to Herder: "Within the body, the people [*Volk*], a higher life is enacted than in the individual cell. Humanity, by contrast, is really no more than the sum of all peoples, or, if you like, of all people, but not a sum in the sense of a whole. Humanity is in essence only a linguistic concept, the function of which is to encompass the totality of human beings and their characteristics and to distinguish it from the realm of the animals."

Such diffuse speculations prove less instructive than more specialized studies of closely defined areas. A writer like Schmidt-Rohr fits less easily into the front rank of contemporary scholars than Köhler or Bühler, with their individual investigations into the language of chimpanzees.[55] For their research contributes, indirectly but decisively, to an understanding of the main problems of philology—including both the old question of the origin of language and the more recent one of the relationship of language to

thought. The special achievement of Vygotsky is that he pointed out how this research on chimpanzees impinged on the foundations of linguistics.[56] This can be linked directly to Marr's theory, according to which the manipulation of tools must have preceded that of language. But since the former activity is impossible without thought, there must have been a kind of thought which antedated speech. Thought of this kind has, indeed, been acknowledged on several occasions recently; Bühler calls it "tool-thinking." Tool-thinking is independent of language. It is a kind of thinking which can be shown to exist in a relatively highly developed form in chimpanzees (see Köhler for a detailed discussion of this).[57] "The conjunction of a humanoid intelligence with the absence of anything that is at all comparable to human language, and the independence of their intellectual operations . . . from their 'language'"—this is the most important observation Köhler is able to make about his chimpanzees.[58] If the earliest development of intelligence (tool-thinking) led in this way from the simplest improvised means of communicating information to the production of tools—which, according to Marr, liberated the hand for the tasks of language—this learning process involved not only the intelligence but gestural or acoustic forms of expression. These, however, being prelinguistic [*vorsprachlich*], are wholly reactive forms of behavior. Moreover, the very independence of the earliest "linguistic" stirrings from the intellect leads beyond the sphere of chimpanzee language into the larger one of animal language in general. It can scarcely be doubted that the emotional-reactive function of language which is at issue here "is biologically one of the oldest forms of behavior and has a genetic kinship to the optical and acoustic signals of the leaders of animal packs."[59] The result of these investigations has been to define the geometric point where language has its origin: at the intersection of an intellectual and a gestural (manual or acoustic) set of coordinates.

The question of the origin of language has its ontogenetic counterpart in the field of childhood language. Moreover, the latter is able to throw light on the phylogenetic problems, as Delacroix has shown in his study *Au seuil du langage* [On the Threshold of Language]. Delacroix starts from an observation made by the English chimp-researcher Yerkes, who argued that if the chimpanzee, in addition to its level of intelligence, possessed an acoustic-motorial mimetic instinct of the kind known to us from parrots, it would be able to speak.[60] Delacroix opposes this argument by referring to the psychology of children's language. "The child," he explains,

> learns to speak only because it lives in a linguistic environment and hears speech all the time. Language acquisition presupposes a very comprehensive and continuous stimulus. It is conditional on human society. Moreover, the child is attuned to this stimulus in an equally comprehensive way. It learns not only the language spoken to it, but also that spoken in its presence. . . . It learns in society, and it learns alone. These conditions are lacking in Yerkes' experi-

ment. . . . And if his animal, which even lives in a human environment at times, remains indifferent, unlike the child, to the sounds emitted by the human beings in its presence, and does not learn language when alone, there must be a good reason for this.[61]

In brief: "The human sense of hearing is an intellectual and social sense founded on the purely physiological one. For human beings, the largest area to which the sense of hearing relates is that of linguistic relationships." To which the writer adds this revealing comment: "Hearing is thus particularly exposed to the effects of psychiatric delusions of reference."[62] The acoustic-motorial reaction underlying language acquisition in humans therefore differs fundamentally from that of parrots. It is socially oriented. "It consists of a predisposition to being understood."[63] Indeed, Humboldt long ago defined the intention of being understood as the starting point of articulated communication.

Our understanding of childhood language has been decisively advanced in recent years by the research of Piaget.[64] His studies of linguistic psychology, using children as subjects and carried out with circumspection and perseverance, have proved to be of significance for a number of controversial issues. Here we can do no more than mention the arguments in which Weisgerber, in the survey already mentioned, uses Piaget's findings against Cassirer's mythology of language.[65] The present context requires us to explore, above all, Piaget's concept of egocentric childhood language. The language of children, Piaget maintains, moves on two different tracks. It exists as a socialized language on the one hand, and as egocentric language on the other. The latter is language in the proper sense only for the speaking subject itself. It has no communicative function. Rather, Piaget's records have shown that this language, transcribed in shorthand form, remains unintelligible unless accompanied by the context of the situation in which it arose. Yet this egocentric function cannot be further understood except when closely related to the process of thought. This is borne out by the significant fact that the egocentric function manifests itself most often in conjunction with disorders in behavior, or with difficulties in performing tasks. This led Vygotsky, who carried out experiments on children using methods similar to Piaget's, to formulate important conclusions: "Our investigations have shown," he says, "that the coefficient of egocentric language rapidly increases to almost double the normal value (as established by Piaget) when obstacles are present. Whenever they encountered a difficulty, our children exhibited an increase in egocentric language. . . . We therefore believe it justifiable to conclude that impedance or interruption of a smooth-running occupation is an important factor in generating egocentric language. . . . Thinking is brought into action only when an activity which has run unhindered up to then is interrupted."[66] In other words, in early childhood egocentric language takes exactly the place reserved at a later stage for the

thinking process itself. It is the precursor, indeed the teacher, of thought. "The child learns the syntax of language earlier than the syntax of thought. Piaget's investigations have shown beyond a doubt that, in the child, development of grammar precedes development of logic."[67]

These observations make it possible to correct behaviorism's solution to the problem of "language and thinking." In their endeavor to construct a theory of thinking within the framework of their theory of behavior, the behaviorists have understandably focused their attention on speech, without really bringing to light anything new; rather, they have confined themselves essentially to appropriating the disputed theories of Lazarus Geiger, Max Müller, and others.[68] According to these theories, thinking is construed as "internal speaking"—speaking which involves minimal innervation of the apparatus of articulation. Such innervation, it is argued, can be detected only with difficulty, and not without the help of extremely precise measuring instruments. From the thesis that thinking is, objectively, merely inner speaking, Watson goes on to seek an intermediate link between speech and thought.[69] He discovers this link in "whisper language." Against this, Vygotsky has pointed out that everything we know about children's whispering "refutes the supposition that whispering is a transitional process between outward and inward language."[70] From all the foregoing, one can see how the behaviorist theory can be corrected by means of the concept of egocentric childhood language. Let us note briefly here that valuable discussions of behaviorism may be found in Bühler's recent work.[71] In connection with Tolman's *Purposive Behavior in Animals and Men*,[72] he insists that a decisive role be given to the signal (in addition to the stimulus) in the origin of language.

Thus, in Watson's work, the improvised reflection on phonetic phenomena leads no further. Yet the same reflection yields considerable insight when it is applied methodically. This has been done by Richard Paget. He starts out from what is, at first glance, a highly surprising definition of language. He understands it as gesticulation of the speech organs. Here the gesture, not the sound, is primary. Nor does the former change with amplifications of the latter. In most Indo-European languages, everything can be expressed in a whisper without losing intelligibility. "The comprehensibility of what is spoken in no way requires actuation of the laryngeal mechanism or vibration of the air in the vocal sounding boards of the palate, the mouth, or the nose, as is the case when speaking with a raised voice."[73] According to Paget the phonetic element is founded on a mimetic-gestural one. That this view places him at a focal point of current research is apparent from the work of the Jesuit clergyman Marcel Jousse, who arrives at very similar results:

> The characteristic sound is not necessarily onomatopoeic in nature, as has all too often been asserted. The initial function of sound is, rather, to complete the

meaning of a certain mimetic gesture. But it is a mere accompaniment, an acoustic support for an optical language of gesture which is understandable on its own. Gradually, each characteristic gesture became associated with a corresponding sound. And if such gesticulation mediated by mouth and throat was less expressive, it was also less tiring, requiring less energy than the gestures of the body or even the hand. Thus, in time, it became predominant. . . . That does not, however, diminish . . . the extraordinary importance which attaches to the exploration of the original meaning of what have up to now been called the roots. The roots in this sense would be nothing other than acoustic transpositions of old, spontaneous mimic-expressive movements.[74]

In this connection, detailed reports on the linguistic behavior of three children (due to be published by Bühler) promise to be highly informative, since he draws from them the revealing conclusion that "Brugmann's concept of *deixis* . . . is really derived from dental sounds."[75] This may be compared to Paget: "The inaudible smile turned into an exclaimed or whispered 'ha-ha,' the gesture of eating became an audible (or whispered) 'mnya-mnya,' while the gesture of slurping small quantities of liquid was the ancestor of our present-day word 'soup'! Finally, all this was supplemented by the important discovery that bellowed or grunted laryngeal sounds could be connected by mouth movements, and that whispered language, when linked to a laryngeal sound, became audible and understandable at a distance ten or twenty times greater than before."[76] In this way, according to Paget, articulation as the gesture of the speech organs falls within the large sphere of bodily mimicry. Its phonetic element is the bearer of a communication, the original substrate of which was an expressive gesture.

With the contributions of Paget and Jousse, the obsolete onomatopoeic theory, which can be called a mimetic theory in the narrower sense, is supplemented by a mimetic theory in a far wider sense. From the metaphysical speculations of Plato to the findings of modern thinkers, language theory forms a broad, vaulted arch. "In what does the true nature of spoken language consist? The answer, prefigured by Plato, prompted . . . by the Abbé Sabatier de Castres in 1794, formulated by Dr. J. Rae from Honolulu in 1862, renewed by Alfred Russel Wallace in 1895, . . . and finally taken up once more by the writer of the present treatise, is that spoken language is only one form of a fundamental animal instinct: the instinct of the mimic-expressive movement of the body."[77] In this connection I shall cite an observation by Mallarmé which may form one of the motifs underlying Valéry's *L'Ame et la danse:* "The dancer," writes Mallarmé, "is not a woman but a metaphor that may give expression to one aspect of the elementary forms of our existence: sword, goblet, flower, and others."[78] With such a perception—namely, that linguistic expression and choreographic expression are rooted in one and the same mimetic faculty—we cross the threshold of a physiognomics of language, which takes us far beyond the primitive at-