kansas working papers in linguistics

volume 4 1979 no.2

edited by

Geoffrey Gathercole and Kurt Godden

Acknowledgements

The editors would like to express their thanks to the faculty and staff of the Linguistics Department for their invaluable assistance in the preparation of this volume. Funding for this journal is provided by the Graduate Student Council from the Student Activity Fee.

© Linguistics Graduate Student Association, University of Kansas, 1979

CONTENTS

		Page
	Speech act theory and the problem of meaning	
	A. C. Genova	Ĺ
	The obviative suffix $-\underline{ni}$ - in Algonquian	
	Geoffrey Gathercole	17
	A socio-linguistic inquiry into language change: Alsatian, a case study	
	Marguerite Hessini	25
120	Vowel harmony, natural phonology and the problems of borrowing	
	Mehmet Yavaş	41
	A fiberoptic study of stop production in Maithili	
	Ramawatar Yadav	55
	Comparison of static form and dynamic action as the basis of children's early word extensions	
	Michael W. Casby	71
	Regression, surface constraints and the acquisition of mid vowels	
	Ronald P. Schaefer	79
	The acquisition of more and less: A critical review	
	V. C. Mueller Gathercole	99

A. C. Genova

Abstract: After clarifying how recent theories of meaning share a similar philosophical orientation, I specify the current version of the central problem of meaning and then invoke a four-stage dialectical scheme exhibiting recent theories as progressive attempts to rectify previous theories and solve the problem of meaning. I conclude that only a speech act theory can adequately account for the phenomenon of meaning because it construes language and meaning in terms of a rule-governed intentional activity directed to the needs and goals of communication. Finally, I argue that a satisfactory theory must rely on appropriately primitive semantic notions having the greatest explanatory value for the linguistic facts.

In the most general terms, I think it is fairly easy to see why the notion of meaning has been so central to recent Anglo-American philosophy. Generally, the point would be that 20th century philosophy, with the exception of a few anachronistic attempts to maintain the philosophic styles of our more distant predecessors, exhibits the general orientation of the so-called linguistic revolution in philosophy. Ancient philosophers, in significantly different ways, shared an ontological orientation in which problems of language and problems of knowledge, although certainly important, were given secondary importance in comparison with problems concerning the nature of the objects known. The determination of the general nature of being and the specification of substance by way of essence were projects universally shared by the Pre-Socratics and the major philosophical schools of Greece. The most fundamental philosophical issue focused on whether the essential character of being could best be construed in terms of transcendent universals, simple physical constituents from which all else was compounded, natural organic unities of form and matter manifesting a self-regulatory character, or perhaps none of these at all because being was inherently indeterminate and unspecifiable. In short, the primary problem, whether for the Platonists, Atomists, Aristotelians or Sophists, had to do with the essence of reality.

It is notorious that with the advent of the so-called "Copernican revolution" in philosophy (initiated by Descartes and culminating with Kant), all of this changed. The general idea was that modern philosophers transferred the logical priority to the conditions of knowledge and argued or presupposed that prior to the determination of the nature of things, one must first take account of the epistemological conditions and limitations of knowledge. It now was very imperative (not merely idle) to provide a justification for our belief in an independent, external world; and further, to determine to what extent (if any) our "representations" of that world were objective. Thus, inquiry no longer

revolved around the determination of the essence of independently existing entities, but rather centered on problems of objectivity and methodology in respect to knowledge and the knower. How can one justifiably establish intersubjective criteria which will ground the objectivity and universality of judgments, i.e., guarantee the truth of what we claim to know in a way which is not derivative from or dependent upon prior assumptions about the fact or character of being qua being?

Recent philosophy exemplifies a reorientation analogous to but different from the revolution in modern philosophy just discussed. Just as modern philosophy argued or presupposed that since the objects of cognition are conditioned by the mode of cognition, questions about the latter had logical priority, analogously, recent philosophy argues or presupposes that since the mode of cognition is conditioned by the modes of expression, an analysis of the modes of expression (language, action, feeling) has logical priority to questions about the mode of cognition, and a fortiori, to questions about the objects of cognition. Its more familiar version, at least from the point of view of analytic philosophy, is captured in the notion of the "linguistic turn"-- the idea that since our conceptual framework is directly dependent upon the mode by which concepts are expressed, an analysis of the primary vehicle of expression (language) is presupposed for any meaningful talk about concepts or reality. And in this context, the central problem is necessarily that of meaning.

W. V. O. Quine, in recognizing this overall shift from essence to meaning, says "Things had essences for Aristotle, but only linguistic forms have meanings. Meaning is what essence becomes when it is divorced from the object of reference and wedded to the word" (Quine. 1963, p. 22). Quine goes on to argue that meaning, as an independent variable, in turn is eliminable and that the theory of meaning has restricted itself to questions about the synonymy of linquistic forms and the analyticity of statements. Quine's next move is to impugn the notions of synonymy and analyticity in turn. He argues that any attempt to understand these concepts is illusory because neither of them admits of an independent warrant and it would be useless to try to explain them by having recourse to the already inexplicable concept of meaning. Thus, since these concepts will not admit of non-circular definition and they lack "objective criteria," Quine thinks that they must be replaced by his behaviorist notions of stimulus synonymy and stimulus analyticity; and on this basis, he goes on to establish his well-known thesis of the indeterminacy of translation and the inscrutability of reference. mention Quine's views here because he makes it sound as if the problem of meaning is not the central problem after all. But Quine, I submit, confuses the issue at hand. He construes meanings as hypostasized mental entities--obscure intermediary entities between words and things--and accordingly, he dispenses with these in favor of what he takes to be their behavioral correlates. This amounts to a bit of philosophical legerdemain because it makes it look as if our only alternative to the undesirable mentalistic notion of meaning is Quine's notion of stimulus meaning. The truth is that Quine's suspect notion of meaning as a "meant entity," if it applies to anything at all, applies to the earlier

philosophic orientation reviewed above which gave priority to consciousness as opposed to objects, not to the recent orientation resulting from the so-called linguistic turn. Recent and contemporary theories of meaning more or less agree on a general philosophical orientation which interprets linguistic meaning as something which must be explained not by finding associated mental entities revealed in an introspective realm or by locating independent external entities for which concepts and linguistic correlates stand, but rather, in terms of the vehicle or agency through which meanings are expressed, i.e. language and language users. What then is the problem of meaning in the contemporary context?

Actually, it is really quite simple and straightforward. The ordinary, common sense assumption about language is that people can utter certain sounds under appropriate conditions and thereby communicate with other people who understand this communication in virtue of their shared understanding (with the speaker) of their natural language. But how is this possible? How can we account for this linguistic relation between uttered sounds (or written inscriptions) and meaning? How can one mean something by saying something and how can what one says have meaning? Note that the problem involves both primary senses of meaning, viz., the sense of meaning associated with what a speaker intends to communicate and the sense of meaning associated with the linguistic form which conveys that meaning to a hearer. The relation is essentially triadic, involving the speaker's linguistic competence to say something, the shared language, and the hearer's linguistic competence to understand what is said. An adequate explanation must account for the full triadic relation and do this in a way which is neither circular nor dependent upon some inexplicable mental entities nor over-reliant on just one aspect of the complex problem. Moreover, it must be compatible with the high degree of autonomy and creativity exhibited in linguistic performance, with the fact that speakers can construct and recognize an indefinite number of novel sentences, etc. Now it is speech act theory, more than any other position in the philosophy of language, which adopts this general point of view; and I think it is generally acknowledged that the renewed interest in speech act theory is attributable to the appearance of John Searle's Speech Acts which was the first attempt (since its original and somewhat tentative formulation by J. L. Austin) at a comprehensive systematic exposition of the theory and its philosophical significance (Searle, 1969).

In my view the shortcomings of many recent theories of language are due to their failure to accommodate all relevant aspects of the problem as described in the last paragraph. What they respectively say is often quite true, but they almost invariably examine one aspect of the problem of linguistic meaning and then treat their account of that aspect as if it sufficed as an explanation of the whole. As a first step in illustrating this point, it is illuminating to consider L. J. Cohen's useful classification of theories of meaning into two groups, viz., de facto and de jure theories. Cohen claims that de facto theories hold that "most statements are, or should be construed as, statements about occurrences, states, situations or habits of certain sorts and their observable or introspectible relations to one another" while de jure theories maintain

that "most statements about meanings are or should be construed as statements about rules of certain kinds and the extent to which they have been broken or obeyed." For the former, language is a pattern of events and correct accounts of linguistic meaning describe something that happens regardless of whether it ought to or not; for the latter, language is a system of rules and correct accounts of linguistic meaning state something that ought to happen regardless of whether it does or not.

Further, Cohen divides de facto theories into (I) causal theories, which equate meaningful language with events which are causally related to its utterance such that meaning for a hearer is a causal property of a vocal sound acquired through the mechanism of conditioned reflex and testable in terms of an appropriate response, while meaning for a speaker is the overall environmental context which stimulates the speaker to initiate utterances; and (2) intentional theories, which do not construe all meaning in these gross mechanistic terms but require that for reasoned utterance, in contrast to what is merely symptomatic, we must take account of the purposes and intentions of the speaker, and hence, statements about meaning are about purposeful intentions. Likewise, de jure theories admit of division into (3) formalist theories, which interpret natural language as analogous to formal logic and only differing in the degree of clarity and completeness achievable in formulating syntactical and semantical rules which could determine what is necessarily true in English; and (4) informalist theories, which sharply differentiate between natural and formal languages because meaning in ordinary language is context-dependent, irrevocably variable, and exhibits a variety of uses other than the use associated with statements having truth values. Where, in this apparently exhaustive classification, would the theory of speech acts fit? It is true that Cohen's The Diversity of Meaning was first published in 1962--seven years before Searle's Speech Acts; but Austin's William James Lectures were delivered in 1955. Cohen takes no specific account of speech act theory as such in his classification. What I now want to show is that Searle's theory cannot simply fit in one of Cohen's categories because speech act theory involves all four dimensions in an integrated, organic way, and moreover, none of the categories, taken exclusively, is sufficient to explain the problem of meaning.

In his <u>Speech Acts</u>, Searle construes language as an institution of intentional behavior grounded on constitutive rules. A theory of language is part of a theory of action and the speech act—the minimal unit of linguistic communication—accordingly is the fundamental unit of linguistic analysis. Thus, for Searle, speaking a language is performing speech acts. He considers it to be analytically true that whatever can be meant can in principle be said, and he formulates this notion as the "Principle of Expressibility" (Searle, 1969, p. 20). So "a study of the meaning of sentences is not in principle distinct from a study of speech acts" because "since every meaningful sentence in virtue of its meaning can be used to perform a particular speech act (or range of speech acts), and since every possible speech act can in principle be given an exact formulation in a sentence or sentences (assuming an appropriate context of utterance), the study of the meanings of sentences and the study of

speech acts are not independent studies but one study from two different points of view" (Searle, 1969, p. 18). Searle's claim is that instances of actual speech, as well as their second-order characterizations, receive linguistic explanation by identifying the underlying constitutive rules and their conditions of application--a procedure which ultimately relies on the "intuitions of the native speaker." Accordingly. he formulates sets of constitutive rules for the performance of certain kinds of speech acts, i.e., rules based on and abstracted from the necessary and sufficient conditions for the nondefective performance of a speech act such that the conjunction of a set is materially equivalent to the proposition that a speaker actually performs the speech act successfully. Now since informalist de jure theories treat rules as roughly comparable to the rules of games rather than those of logic and meaning emerges when we understand the use of a linguistic term based on an awareness of its verbal and non-verbal contexts of utterance, so far then, it would seem that speech act theory in Cohen's terminology, would be an informalist theory of meaning. But this would be premature. The reason is that although Searle's conception of rules has essentially this informalist character, he would reject any identification of the meaning of a word with its use, insist on a distinction between language and games, and generally, would not interpret meaning or rules as exclusively context-dependent as some of the followers of Wittgenstein have done.

Searle's position concerning causal de facto theories and formalist de jure theories can be derived from his argument. He explicitly rejects the formalist approach when he argues that a study of the purely formal features of language, in abstraction from their embodiment in dynamic speech acts, would be like "a formal study of the currency and credit systems of economics without a study of the role of currency and credit in economic transactions" or "as if baseball were studied only as a formal system of rules and not a game" (Searle, 1969, p. 17). In short, the formalists miss the point that a theory of language is part of a theory of action. As for the causal theorists, they miss Searle's distinction between brute facts and institutional facts (Searle, 1969, p. 53). In effect, they attempt to offer a semantical analysis of an institutional activity armed only with a conceptual structure of brute facts, thereby ignoring the semantical, constitutive rules which underlie and explain the brute regularities observable in language behavior. The obvious explanation of such regularities is that the language-users are engaging in rule-governed behavior which, as G. E. M. Anscombe and others have said, is intelligible only in terms of reasons, not causes. Finally, such de facto theories over-emphasize the effects of illocutionary acts, i.e., perlocutionary acts--their strategy being that if illocutionary acts can be reduced to perlocutionary effects, then language can be construed as merely a conventional means for producing natural responses or effects. It is at this point that Searle indicates that ". . . institutional theories of communication, like Austin's and mine, and I think Wittgenstein's, part company with what might be called naturalistic theories of meaning, e.g., those which rely on a stimulus-response account of meaning" (Searle, 1969, p. 71).

Finally, how does speech act theory relate to the so-called intentional de facto type theories? Searle's theory, regardless of its prima facie, de jure character, clearly recognizes the need to refer to intention or purpose in his setting forth the conditions for the successful performance of speech acts. This is especially so if one considers his modification of Grice's intentional criterion of meaning (Searle, 1969, pp. 42-50). While agreeing that any analysis of meaning requires a reference to the intentions of the speaker, Searle objects to the Gricean criterion on the grounds that (I) Grice underplays or ignores the necessary conventional dimension of meaning, i.e., meaning requires conventions (formal rules) as well as intentions; and (2) Grice confounds perlocutionary effects with illocutionary effects, i.e., successful communication requires that the hearer understand what the speaker is saying (what illocutionary act is being performed by the speaker), not merely that some perlocutionary effect or response results from the exchange. For Searle, a speaker means something in the utterance of a sentence when he intends the utterance to produce in the hearer an understanding of the utterance and a recognition of the speaker's intention that the hearer understand the utterance, all of which occurs in virtue of their shared understanding of the rules governing the sentence uttered.

In sum, by making the speech act the unit of analysis--as opposed to observable items of linguistic behavior or a formalized set of rules or specified contexts and circumstances of utterance or some specifiable subjective intention -- the speech act theory does not admit of any straightforward classification under Cohen's rubrics. It is rather that what Cohen treats as headings of kinds of theories are really integral aspects of an organic speech act. We might bring all of these aspects together by saying that speaking a language is an institutional fact governed by constitutive rules--an intentional rule-governed activity performed for the purpose of causing understanding in the hearer and embodied in observable behavior which reflects brute fact regularities. The fundamental idea behind speech act theory is to construe language in terms of linguistic communication and to recognize that this in turn involves a triadic relation between a speaker, a hearer, and their language. The notion of communication obviously falls within the generic notion of activity, and consequently, an adequate account of linguistic communication must conform to the requirements of a philosophy of action. Since communication is the vehicle of linguistic meaning, an acceptable analysis of meaning must proceed in accordance with the logical parameters involved in linguistic communication as a rational activity. The shortcomings of alternative theories typically rest in their tendency to abstract (albeit in different ways) from the context of communication and rely exclusively on only one (or perhaps two) of the parameters involved. To say that meaning is to be explained in terms of causally related events or subjective purposes or purely formal rules or context-dependent regularities of use, is to be wrong not merely in the sense of being incomplete, but more seriously, in the sense that each of these semantic dimensions becomes distorted when abstracted from its inter-relationship with the others.

Now it is true that Cohen's classification is outdated and unrepresentative of the current scene. Also, his notion of an intentional de facto type theory (in my view) is quite unclear. is not clear why what he calls an intentional theory should be classified as de facto at all. If, as Cohen claims, de facto theories generally construe language as a pattern of events (analogous to the data of any other empirical science) and treat linguistic meaning in terms of descriptions of what does happen regardless of any normative considerations, then why would a theory which requires reference to purpose or intention for the adequate explanation of reasoned utterance be called de facto? It would seem that those who steadfastly distinguish the behavior of computers from purposeful human activities, who distinguish merely symptomatic verbal reflexes from reasoned utterances, are precisely saying that linguistic phenomena cannot be sufficiently explained as language behavior apart from viewing language as an instance of cognitive activity regulated by norms, purposes or standards--something very close to viewing language as rule-governed, as de jure and not de facto.

What is needed is to reinterpret Cohen's scheme as a dialectical progression involving successive advances in the philosophy of language rather than as a categorical organization of exclusive kinds of theories of meaning. What I mean is this: Consider as the first term in this dialectical progression the kind of theory of meaning characterized by Cohen as causal de facto. This is historically supported by the fact that in most linguistic circles the predominant model or paradigm of linguistic meaning prior to 1950 was the descriptive linguistics of the structuralist school developed by Leonard Bloomfield which systematically rejected anything suggestive of mentalistic entities (rules, intentions, mentalistic meanings, etc.) and treated "meanings" as patterns of behavior determined by stimulus-response relations. The fundamental units of analysis were morphemes which were the minimal bearer of behaviorist meaning. The meaning and use of sentences had little place in this enterprise. The second term in the progression is a complex one because it consists of the de jure theories which recognized the need to postulate the sentence as the unit of analysis and to take account of the cognitive component of language insofar as this was the source of rules. At this stage, the logical positivist theory of language as represented by Carnap and the ordinary language theory as represented by Wittgenstein were <u>formalist</u> <u>de jure</u> and <u>informalist</u> <u>de jure</u> theories respectively, in agreement insofar as they both appealed to rules as explanatory principles of language but in radical dialectical opposition as to the status and kind of rule required. The proponents of generative grammar, although also de jure theorists insofar as they required a synthesis of the behavioral component with the cognitive rule-giving component, must nevertheless be treated as a third term in the progression. The reason is that they not only effected a synthesis with the structuralist school, but in an extremely important sense, effected what is tantamount to a synthesis between the positivists and Wittgenstinians.

Thus, Chomsky, in his original work, was primarily concerned with the inadequacies of structuralism to provide explanations of actual

linquistic behavior as instanced by its incapacity to account for the linguistic competence of speakers and hearers to produce and understand a potentially infinite store of sentences exhibiting indefinite degrees of novelty or to explain all the external relations among different sentences and the internal relations within a given sentence. It was therefore necessary to presuppose universal, abstract sets of formal syntactical conditions which regulated the occurrence of deep structures, surface structures, the transformation rules that interrelate them, and the phonetic and semantic rules that interpret them. In short, meaning could not be accounted for without rules. On the other hand, Jerrold Katz, in his The Philosophy of Language (Katz, 1966, pp. 18-96) provides a systematic critique of the logical positivist and ordinary language theories of meaning with a view to showing that (1) the positivist approach, as represented by Carnap, provides only an arbitrary and conventional account of language, and further, its analysis of meaning is circular; (2) the ordinary language approach, as represented by the later Wittgenstein, fails to achieve the level of generality required for a theory of language to yield empirically testable predictions and thereby forfeits the very possibility of inferring anything about the general nature of conceptualization and meaning. Katz goes on to defend his theory of language as a non-conventional, adequately general theory which serves as an empirically motivated idealization (like any other scientific theory) wherein the formalized linguistic universals are arrived at by empirical generalization and extrapolation from successive levels of linguistic phenomena. In all of this, it is quite clear that Katz is more concerned with refuting alternative de jure theories than with reiterating Chomsky's own refutation of the de facto structuralist theory; and I want to stress the fact that he accomplishes this in virtue of a qualitative distinction between the de jure theories he refutes and the Chomsky-Katz theory, viz., that the latter exhibits what can be construed as a synthetic interpretation of natural language as linguistic activity in which purely formal rules have the status of essential organizing principles of natural discourse.

Actually, advances in developing a formal semantics of natural language have recently been approached from three different directions which have intersected at various points, reflecting a shared orientation concerning the relation between natural discourse and formal structures, and a common focus on a whole host of interrelated problems (Davidson and Harmon, 1972; Hintikka, Moravcsik and Suppes, 1973). Logicians. concentrating on modal, intensional, deontic and pragmatic logics, have been increasingly applying formal methods to linguistic contexts which closely resemble those of natural languages; theoretical linguists, from an independent basis and employing different methodologies, have abstracted formal syntactic and semantic systems of rules which apply to natural languages; and some philosophers, like Searle, have approached the same problem from the perspective of action theory and the philosophic requirements of formulating an adequate explanation for the facts of communication. The central feature common to all of these diverse approaches is the belief that natural discourse contains underlying formal structures which are sufficient to quarantee its clarity and

precision; and this, as Katz emphasized, is exactly what the positivists and ordinary language philosophers denied (Katz, 1966, pp. 16, 94-96).

This approach taken by recent logicians, linguists and philosophers in their diverse efforts to develop a formal semantics of natural language does not locate the principles of natural discourse in artificial formal constructions or context-dependent language games. In contrast to positivists like Carnap, this is not a conventional program of imposing independent abstract forms on the body of language; and in contrast to ordinary language theorists, it is not a process of generating indefinite regularities from essentially provincial descriptions of the interaction between word usage and the circumstances of utterance. One should not begin in a vacuum of a priori presuppositions about what constitutes an acceptable formal system based on preferred formal models taken from logic or mathematics; nor should one begin in a plenum of language usage as it is contingently modified on all sides by its complex interrelationship with externalized variables and the subjective peculiarities of language-users. To do the former is to find principles in pre-established conventions which guarantee preferred modes of successful performance for a special class of speakers in abstraction from the actual activity of language-speaking. To do the latter is to find principles in behavioral regularities relativized to individualized contexts and particular purposes in abstraction from the constitutive rules which govern the function of what is subsequently used. In relation to these dialectically opposed formalist and informalist de jure theories, the advocates of a formal semantics of natural language effect a synthesis in virtue of a synthetic interpretation of language in which purely formal rules have the status of essential organizing principles of natural discourse. Language is now treated as a substantial whole in its own right, as a rule-governed autonomous activity in which the rules are natural forms constitutive of their content and the activity is linguistic performance in accordance with the rules. The previous discrepancy between the "amorphous discourse" of everyday life and the "pristine language" of an idealized canonical notation is mediated by a new interpretation of language as a seamless whole--one in which formal and material elements stand in a natural relation of reciprocity. 2 So far so good, and to this extent, I contend that Searle's speech act theory and the recent attempts to formalize natural language share a common point of view. So why do I say that speech act theory is superior? For the sake of space, let us restrict the analysis to the Chomsky-Katz approach to generative grammar--virtually a paradigm of what I characterized as the third term in our dialectical development.

Consider the essential components of a theory like Chomsky's. Its most innovative contribution is found in his insistence that an explanation of the syntactical facts of linguistic behavior must have recourse to the cognitive dimension in language—the speaker's knowledge (linguistic competence) of how to produce and understand sentences. He recognized that an adequate theory of language requires an integral semantic component if it is to account for meaning. Accordingly, the project is one of specifying the syntactic and semantic rules underlying sentences and which have the status of linguistic universals

(innate ideas?) in the conceptual frameworks of speakers. A theory of language becomes a formalization of linguistic universals and its subject matter is linguistic competence. In the most general terms, the theory includes a syntactic component consisting of the recursive rules governing grammatical elements and their possible combination into sentential structures, a semantic component consisting of the rules by which these structures are interpreted as having meaning, and a phonological component consisting of the rules by which these structures are translated into speech sounds. The syntactic component divides into a base component of phrase structure rules which determine the deep structure of sentences and provides the input to the semantic component; and a transformational component which converts deep structures into surface structures and provides the input to the phonological component. It is important here to note that this system, through its foundation base structure, thereby gives a formal exposition of language in terms of syntax and then supposedly deductively generates all the grammatical, phonological and semantic outputs which are linguistically possible. The paradigm of explanation here is the well-known deductive model of science. A linguistic item is explained when it is deducible from the underlying linguistic universals which are the determinants of all particular structures.

But now how does all of this explain the fact that what a speaker says has meaning and a speaker means what he says? That a hearer understands what a speaker says and understands what the speaker meant in saying what he said? The semantic component interprets underlying phrase markers in terms of meaning and it does this in accordance with semantic rules. Are we then to explain a speaker's semantic competence--his knowledge of a sentence's meaning and how it comes to mean what it means--by simply appealing to the semantic rules which assign semantic interpretations to the underlying phrase markers? Well, it has been generally acknowledged since Frege that the unit of meaning is the sentence, not the word (except of course for one word sentences) -- that when we think of a word as having meaning, we must construe the word as a potential grammatical element in a sentence. So the question concerns whether or not theories like Chomsky's or Katz's give an adequate account of sentence meaning. Now their theory holds that the meaning of any syntactically compound constituent of a sentence is a function of the meanings of its parts. The idea is that the semantic component first assigns meanings to the elementary constituents (the terminal symbols or morphemes), then progressively to words, compound constituents and sentences. This is accomplished by means of two kinds of semantic rules: dictionary rules which provide representations of the conceptual structure of the meaning of each linguistic atom; and projection rules which provide the combinatory machinery to construct the semantic interpretation of more complex structures. The dictionary listings include lexical readings which correspond to the different senses of the defined word. semantic markers which provide the conceptual elements for each lexical reading, and selection restrictions which provide necessary and sufficient conditions for the combination of senses of different words into derived readings constructed in accordance with the projection rules, and so on. These rules also provide the basis for defining ambiguity, nonsense, synonymy, homonymy, analyticity, contradiction, etc. The long and the short of it is that the final outputs of the semantic component are interpretations of the meanings of sentences for "normal speech situations."

In respect to the problem of meaning, there are at least two major difficulties with this approach to a formal semantics of natural language. The first has been explicitly posed by Searle in the form of a dilemma (Searle, 1972, pp. 16-24). Either the proposed account of meaning itself presupposes crucial elements of the notion it purports to analyze (in which case the account is circular) or the account reduces the analysandum to a list of elements which lack the crucial features of meaning (in which case the account is inadequate). Exactly what, Searle asks, is the string of symbols resulting from the semantic rules supposed to represent in such a way as to constitute the meaning of a sentence? If the semantic output, in a given case, is supposed to be understood as a statement which refers to something and then says something about the referent (and hence, is true or false), then what in this analysis would ground the connection between the subject and predicate in the form of a judgment? If we assume that the hearer already understands that the utterance occurs in the context of the speech act of assertion, then the analysis is clearly circular; but if we do not assume this, then we are only presented with a list of elements whose connection is ungrounded and whose interpretation is arbitrary, and the analysis is inadequate. The purely formal constraints of the semantic rules are compatible with any set of ordered objects you please and provide no explanation of why the sentence should be taken as a statement as opposed to some other speech act. The theory fails to explain the connection between uttered sounds and meaning. For surely, a crucial component of the meaning of the utterance is precisely that it expresses a statement. The analysis provides no satisfactory explanation of the fact that the competent speaker knows that the sentence can be used as a statement and how to

The second difficulty, I submit, concerns the linguistic atomism that is the philosophical underpinning to the whole approach. Just how does the semantic component assign meaning to the constituent terminal elements? Once this is done, it is assumed that successively compound structures will acquire compound meanings through the socalled projection rules. But how, within the purely formal syntactic background of innate linguistic universals, is this done? It won't do to say that the constituent meanings are somehow already available because on one interpretation this is supposed to be a generative grammar in which the semantic output is deducible from the formal rules. Is it rather that only the syntactical structures are deductively generable and that the semantic elements are somehow independently grounded-perhaps on convention? But it will not do to rely on the device of convention because the notion of convention is already a semantic notion, and besides, its scope refers to institutional facts and a community of speakers which go well beyond the rigorously

internalized formal system which is postulated. Will the ultimate semantic elements then be innate concepts like the syntactical universals? But aside from the dubiousness of such a proposal, it seems to be precluded by the theory's definition of linguistic competence in terms of purely formal syntactic structures. The point is that the theory leaves unexplained and quite mysterious the crucial link between phrase structure output from the base syntactic component and the "semantic interpretation" of these structures by the semantic rules. How do we know that we have a meaning when we have one? How can this "interpretation" proceed to generate what amounts to a radically novel phenomenon—what would it appeal to—when it is necessarily confined within a purely formal, self-contained syntactic background which includes not the slightest trace of anything resembling meaning?

The shortcoming of the theory of generative-transformational grammar rests in its failure to go far enough in its recognition of the remaining component in Cohen's scheme, i.e., the notion of <u>intentional</u> meaning; and this gives rise to the <u>fourth</u> term in our dialectical progression. The project now becomes one of approaching the problems of language and meaning from the standpoint of action theory so as to take account of the full triadic relation between speaker, language and hearer in the broader context of language construed as a complex institutional fact—as intentional activity in accordance with publicly shared rules directed to the purposes and needs of communication.

Speech act theory incorporates the concept of intentional meaning into the concept of linguistic activity, resulting in an interpretation of linguistic activity as a mode of communication which requires an awareness of the purpose and function of language over and above that given by the purely formal structures of syntax and semantics established by the generative and transformational grammarians. Speech act analysis, by proceedings from the standpoint of action theory, requires that we elaborate the previously developed notion of linguistic activity (as an integrated unity of material and formal principles) with an account of the efficient cause and purpose of linguistic activity now subsumed under the category of communication. If you like, the move is analogous to an Aristotelian one in the context of the linguistic turn discussed previously. It requires that we not only recognize that behavioral regularities achieve meaning in relation to the underlying formal rules they reflect, but also that formal systems of rules themselves have semantic significance only in their integral relation to the intentions of speakers and the goals and needs of communication. Now if this is indeed the appropriate context for a theory of language, then the formal rules underlying the activity of language speaking will not be sufficiently identified by empirical generalizations over linguistic utterances (Katz) or necessary presuppositions required to account for language behavior (Chomsky), but will also require modifications or additions determined by the goals of communication and the intentions of speakers. What an utterance means must take account not merely of the lexical product of the meanings of its syntactical elements as these are assigned by formal

semantical rules, but also take account of what a speaker is doing in uttering the sentence he utters, i.e., the speech act.

It would appear then that a generative theory grounded exclusively on syntax confronts serious semantic problems both at the level of sentence meaning and the initial level where it attempts to assign original meanings to primitive elements in abstraction from sentences. Well, does Searle's theory of speech acts provide an independent (non-circular) explanation of meaning? To my knowledge, he has given only limited attention to this specific problem, although where he has briefly treated it he seems to think that speech act theory does provide such an explanation (Searle, 1972, pp. 21-24). He argues correctly that speech act theory (as well as the theory of generative semantics developed by some of Chomsky's students) sees no sharp distinction between syntax and semantics, and indeed, the generative component is semantics, not syntax. Linquistic theory should begin with a description of meanings and then generate the subsequent syntactic and phonological structures by means of constitutive syntactic and lexical rules whose application is sufficient to guarantee that the derived structures will convey the intended meanings. He criticizes Chomsky for maintaining an unwarranted dichotomy between syntax and semantics, form and function, competence and performance, and then constructing a theory of language exclusively in terms of syntax, form and competence. But for Searle, the capacity for language is a competence to perform, and the formal structures of language are essential (not merely incidental) instruments for the realization of the functions of communication. The needs and purposes of communication as reflected in the intentions of speakers influence and determine the formal structures of communication. Language, then, is definable not qua syntax but qua its use in communication. So an understanding of syntactic structures presupposes an understanding of their function in communication, and this entails that an essential part of meaning is the potential of linguistic expressions to be used for speech acts, i.e. to fulfill a certain function or purpose in communication. Knowledge of meaning is knowledge of how to use sentences to issue statements, commands, warnings, questions, promises, etc.; and semantic competence consists in knowing the relation between intentions, rules for the performance of speech acts, and the conditions specified by the rules. A speaker who utters a sentence and means it invokes the rules in order to render the utterance the performance of the intended speech act; and the hearer understands the intended illocutionary effect by his recognition of the speaker's intention that he understand it in virtue of the hearer's knowledge of the same rules invoked by the speaker. Thus, language must be construed as an institutional fact grounded on constitutive rules which govern the intentional activity of communication. Searle concludes that Chomsky can neither account for the interrelation between syntax and semantics nor provide a non-circular explanation of meaning; and his tendency to reject the introduction of speech acts as a return to behaviorism amounts to a confusion between behavior and action.

In this context, Searle thinks that he avoids a circular account of meaning because speech act theory, unlike generative grammar, can account for meaning by appealing to the semantic intentions of speakers. It is this notion that synthetically connects the elements of a sentence into a meaningful speech act. Chomsky's theory can provide only circular paraphrases or non-explanatory lists because it tries to account for sentence meaning in abstraction from the role of sentences in communication. However, if I understand him, Searle's claim seems dubious. Surely the notions of "intention" and "purpose" are semantic notions in their own right, and if the standard for an adequate account of meaning requires that no semantic notions whatever be presupposed, then Searle's account can be charged with circularity as well. No, the problem is not one of providing a non-circular account of meaning, but one of providing an account that relies on the appropriately primitive semantic notions--ones which have the greatest explanatory value in terms of (I) derivative or secondary notions of meaning, and (2) the facts of linguistic communication. I submit that any exposition or account of meaning will be philosophically circular. It will be circular in the "bad sense" if it presumes, in a reductionist way, to derive the notion of meaning from premises or assumptions which have no semantic components at all. It will be circular in the "good sense" if it explains how things come to have meaning and the meanings they have in terms of semantic categories that are genuinely primitive. Given the latter approach, the problem then becomes one of providing something like an appropriate transcendental proof of the primitive status of the semantic categories, formulating the identity conditions for the semantic notions employed, and specifying objective criteria for the identification of the observable grammatical correlates of these semantic notions. On all of these counts, Searle's theory has come up short.

Still, Searle's theory of speech acts has the enormous advantage of according with and explaining the actual linguistic facts and it does this by incorporating the semantic notions of "intention," "action," "purpose," etc., which are the principles needed to make sense out of the fact that speakers mean things, utterances have the meanings that speakers meant them to have, and hearers can understand the utterances. The weakness of generative grammar is not so much that it is circular, but that the theory, as such, internally lacks the very possibility of being circular in the "good sense." Or less paradoxically, it lacks the necessary semantic categories to make sense of the phenomenon of language as language. 4