A New Perspective on Quine

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I. Introduction

For the past few decades, graduate philosophy programs at many American colleges and universities focused their efforts on producing philosophers steeped more in analytic acumen than in historical heritage. This partial eclipse of interest in the history of philosophy was due in large part to the less than celestial movements of logical positivism and logical empiricism and to an interpretation of Wittgenstein that seemed to preclude philosophers from articulating theories. According to the high priests of this latter sect, the task of philosophy consists in the activity of dissolving problems, not in concocting theories aimed at solving them. Philosophers, so these anti-theorists pontificated, must merely assemble lists of reminders (e.g. on how we use the word ‘know’, etc.); they must show the fly the way out of the bottle; they must relieve conceptual cramps; they must battle against the bewitchment of intelligence by language; they must leave things as they are. Not fertile soil, this, for nurturing interest in the history of philosophy. Indeed, this philosophy of philosophy seemed to eliminate altogether the need for studying philosophies prior to Wittgenstein’s, for it is well known that pre-Wittgenstein philosophers were inveterate theory mongers.

I think it is accurate to say that this ahistorical philosophy of philosophy—whatever its origin—is on the retreat. It reached its zenith in the late 1960’s or early 1970’s—a period, incidentally, during which about half of America’s philosophy Ph.D.’s were produced. With every passing day, however, it is becoming more respectable in philosophical circles to express an interest in the history of philosophy and in philosophical theorizing.

Nevertheless, even though the study of the history of philosophy is well on its way toward regaining its former position of respectability in philosophy graduate programs, the conventional wisdom persists that all of the more important philosophy produced during the last thirty or forty years is of the piecemeal variety, that no important systematic philosophy was produced in America during that time. It may, then, come as a surprise to be told that one of the greatest American philosophers of that period is a systematic philosopher; his name: W. V. Quine. In what follows, I shall sketch a reading of Quine that reveals the systematic character of his philosophy.
Central to this new perspective on Quine is the claim that his philosophy is best understood as a systematic attempt to answer, from a uniquely empiricistic point of view, what he regards as the central question of epistemology, namely, “How do we acquire our theory of the world?”

II. The NB Thesis

The reading of Quine that I am advocating focuses on what I have elsewhere1 dubbed the naturalistic-behavioristic thesis (NB thesis) of language. The thesis is naturalistic in that it makes the study of language accessible to empirical investigation and it is behavioristic in that it relies upon behavior as the substance of observable data. This thesis is expressed in countless places in Quine’s writings; here are four instances:

1) “Language is a social art. In acquiring it we have to depend entirely on intersubjectively available cues as to what to say and when.”

2) “Language is a social art which we all acquire on the evidence solely of other people’s overt behavior under publicly recognizable circumstances.”

3) “A language is mastered through social emulation and social feedback, and these controls ignore any idiosyncrasy in an individual’s imagery or associations that is not discovered in his behavior.”

4) “Language is socially inculcated and controlled; the inculcation and control turn strictly on the keying of sentences to shared stimulation. Internal factors may vary ad libitum without prejudice to communication as long as the keying of language to external stimuli is undisturbed.”

The NB thesis may be construed both substantively and heuristically. It is substantive insofar as it makes a factual claim about the (behavioral) parameters of the language-learning context: language is learned by emulating the verbal behavior of members of the linguistic community. It is heuristic insofar as it proscribes the development of mentalistic theories of language learning and linguistic meaning: any underlying psychological mechanisms of language learning and any “meaning” not discoverable behaviorally may safely be ignored.

The new perspective on Quine that I am sketching establishes the NB thesis as the “central axiom” of his entire systematic philosophy.6 On the basis of the NB thesis, Quine develops (even “extrapolates,” one might say) his NB conception of language including too his theory of language learning and his theory of linguistic meaning (“scientific semantics”). Furthermore, Quine’s NB conception of language provides him with the constraints, or framework, within which he articulates his response to the central question of epistemology: “How do we acquire our theory of the
world?" It is imperative, therefore, that we examine the NB conception of language.

III. The NB Conception of Language

Quine's behavioral *theory of language learning* consists of a number of substantive claims about the methods and psychological mechanisms involved in language learning. These claims are best viewed as empirical hypotheses, some of which are of an idealized and highly speculative sort. There are, according to Quine, two general methods of language learning employed by a child learning his first language: ostension and analogic synthesis. Ostension is the initial method of his learning and is generally known among psychologists as direct conditioning. The child begins by observing and imitating the behavior of other language users as it occurs amid publicly recognizable circumstances. In such circumstances the child learns to associate sentences as unstructured wholes with appropriate nonverbal stimulations. In short, the child learns (by induction) the ranges of stimulus conditions ("similarity bases") which in some sense determine the correct uses of various expressions. Such learning, Quine claims, approximates the classical process of reinforcement and extinction of responses. Moreover, Quine claims that the dimensions of the innate structure presupposed by the process of conditioning can, in principle, be ascertained through techniques of operant conditioning (i.e., conditioned response, stimulus generalization, experimental extinction, etc.).

Unfortunately, however, the method of ostension (direct conditioning) does not carry the child very far in his learning, since most sentences he learns are not tied, even derivatively, to any fixed ranges of nonverbal stimulation. How, then, does the child learn to formulate and appropriately respond to such sentences? Quine's answer is that the greater part of language is learned by way of analogic synthesis. Parts of sentences already learned are linked together to build new sentences, the function and placement of those parts being determined by analogy with their function and placement in previous sentences. These previous sentences themselves may have been learned by ostension or by earlier analogic synthesis. The important thing about analogic synthesis is that it involves irreducible leaps of analogy which, if traced backward, will not reveal a smooth derivation of theoretical language (i.e., referential language) from observational language (i.e., sentences directly conditioned to nonverbal stimulation). While we do have some understanding of the mechanisms at work in the ostensive method of sentence-learning, virtually nothing is known about the psychological mechanisms that operate in analogic synthesis. Nevertheless, as part of his commitment to the NB thesis Quine maintains that "whatever the best eventual theory regarding these inner mechanisms of language may turn out

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to be, it is bound to conform to the behavioral character of language learning: the dependence of verbal behavior on observation of verbal behavior. "9

Quine develops the other part of his NB conception of language, a theory of meaning, or "scientific semantics," by employing a taxonomic classification of sentences and a heuristically powerful concept of stimulus meaning. Quine's classification of sentences is subservient to his epistemological quest for an account of how we acquire our theory of the world; consequently, it pertains only to those sentences that are either true or false. Quine divides such sentences into two classes: occasion sentences and standing sentences. If occasion sentences, they are either observation or non-observation (occasion) sentences; and if standing sentences, they are either eternal or non-eternal (standing) sentences. Quine draws his distinctions between classes of sentences in a clearly behavioristic manner. For example, an occasion sentence is a sentence which would elicit assent or dissent when queried only if some prompting (usually non-verbal) stimulus were present. A standing sentence is a sentence which would elicit assent or dissent each time it is queried, without further prompting by some (usually non-verbal) stimulus. The stimulus meaning of a sentence for a speaker at a time is again defined by Quine in terms of observable behavior. A stimulation a is said to belong to what Quine calls the affirmative stimulus meaning of a sentence S for a given speaker if and only if there is a stimulation a' such that if the speaker were given a' and were asked S, then were given a and were asked S again, he would dissent the first time and assent the second. Negative stimulus meaning can be defined similarly, interchanging 'assent' and 'dissent'. Stimulus meaning is the ordered pair of the affirmative and negative stimulus meaning. 8

Fortunately, we do not need to recount the myriad details of Quine's "scientific semantics" since my aim is only to show that Quine's NB conception of language is "conditioned" by the NB thesis. 9 My claim is not that the details of Quine's theories of language learning and linguistic meaning are wholly dictated by the NB thesis, but only that the general behavioristic orientation of these theories is in accord with the NB thesis. Having established this point, we must now show that Quine's NB conception of language provides the framework for appreciating the systematic unity of his discursive philosophy.

IV. The Genetic Approach

I argued earlier that Quine's philosophy is best understood as an attempt to answer, in an empirically responsible way, the central question of epistemology, namely, "How do we acquire our theory of the world?" Since, in Quine's terms, scientific conceptualization is inseparable from language, the various theories comprising our overall theory of the world
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could be regarded as systems of sentences. Consequently, the central problem of epistemology is one of giving an account of the relationship between our theoretical talk and our observations.

But how are we to construe our observations? Being sensory, they are subjective; yet when observations must be taken into account in the contexts of language learning and assessing evidence, it is crucial that those observations be accessible to the relevant linguistic community. On the other hand, nothing is gained if we construe observations as simply shared environmental circumstances, for in this latter case we cannot presume intersubjective agreement about the environing situation. This is because two people will assess the environing situation differently if they notice different features and/or hold different theories. Quine suggests a solution to this difficulty by recommending that observations be thought of as follows:

It consists in talking neither of sensation nor of environing situation, but of language: talking of language at the observational end no less than at the theoretical end. I do not suggest that observations themselves are something verbal, but I propose that we drop the talk of observation and talk instead of observation sentences, the sentences that are said to report observations: sentences like "This is red". No matter that sensations are private, and no matter that men may take radically different views of the environing situation; the observation sentence serves nicely to pick out what witnesses can agree on.10

In light of the above, the central problem of epistemology becomes one of giving an account of the relation between our theoretical talk and our observational talk, i.e., between the sentences learned by analogic synthesis and the sentences learned by ostension. This relation has two aspects, an evidential one and a semantical one. According to Quine, the two are isomorphic: "The channels by which, having learned observation sentences, we acquire theoretical language, are the very channels by which observation lends evidence to scientific theory."11

Thus, the central epistemological problem of accounting for the link between theory and observation has two aspects, expressed by the following two questions: (a) how is it that one sentence can serve as evidence for another? and (b) how do sentences acquire whatever meanings they can be said to have? The answers to both of these questions begin with roles that observation sentences play in providing both evidential support and meaning for the other kinds of sentences in theories. Observation sentences play an evidential role in theories because they are the kind of sentences that enjoy virtually unanimous acceptance among the members of a particular speech community. Two theorists may disagree about the truth of some theoretical
sentence, but they can descend to the level of observation sentences and find a common ground for assessing relevant evidence. ("Whatever evidence there is for science is sensory evidence." 12) Observation sentences also play a semantical role in theories, for although most of language consists of inter-verbal associations, somewhere there have to be non-verbal reference points, non-verbal circumstances which can be intersubjectively appreciated and associated with appropriate utterances. ("Inculcation of meanings of words must rest ultimately on sensory evidence." 13) Observation sentences are, therefore, the gateway to language and, hence, to science. Moreover, observation sentences are the gateway to Quine's naturalized epistemology:

We see, then, a strategy for investigating the relation of evidential support, between observation and scientific theory. We can adopt a genetic approach, studying how theoretical language is learned. For the evidential relation is virtually enacted, it would seem, in the learning. This genetic strategy is attractive because the learning of language goes on in the world and is open to scientific study. It is a strategy for the scientific study of scientific method and evidence. We have here a good reason to regard the theory of language as vital to the theory of knowledge. 14

Thus, Quine's NB conception of language, his theory of language, is vital to his theory of knowledge. It is the framework within which Quine develops his entire systematic philosophy. It is my contention that the NB conception of language prescribes the content of almost all of Quine's more important doctrines and theses, by restricting what counts as an acceptable answer in responding to a multitude of philosophical questions.

V. Quine's Philosophical Edifice

In the early pages of his Dewey Lectures, "Ontological Relativity," Quine clearly indicated the fundamental importance of the NB conception of language to his philosophy when he wrote:

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Philosophically I am bound to Dewey by the naturalism that dominated his last three decades. With Dewey I hold that knowledge, mind, and meaning are part of the same world that they have to do with, and that they are to be studied in the same empirical spirit that animates natural science. There is no place for a prior philosophy.

When a naturalistic philosopher addresses himself to the philosophy of mind, he is apt to talk of language. Meanings are, first and foremost, meanings of language. Language is a social art which we all acquire on the evidence solely of other people's overt behavior under publicly recognizable circumstances. Meanings, therefore, those very models
of mental entities, end up as grist for the behaviorist's mill. Dewey was explicit on the point: "Meaning . . . is not psychic existence; it is primarily a property of behavior." 15

Once language is understood in this naturalistic way, as a social art to be studied empirically (i.e., behavioristically), it is immediately obvious that there cannot be any validity to the claims that language is private or that meaning is private. Nor can one acquiesce any longer in an uncritical semantics:

Uncritical semantics is the myth of a museum in which the exhibits are meanings and the words are labels. To switch languages is to change the labels. Now the naturalist's primary objection to this view is not an objection to meanings on account of their being mental entities, though that could be objection enough. The primary objection persists even if we take the labeled exhibits not as mental ideas but as Platonic ideas or even as the denoted concrete objects. Semantics is vitiated by a pernicious mentalism as long as we regard a man's semantics as somehow determinate in his mind beyond what might be implicit in his dispositions to overt behavior. 16

Quine argues, in sympathy with Dewey, that when we turn toward a naturalistic view of language and a behavioral view of meaning:

(a) we give up the museum figure of speech; (2) we give up assurance of determinacy with respect to meaning and reference; (3) we recognize there are no meanings, likenesses or distinctions of meaning beyond those implicit in people's dispositions.

It is my contention that, fully expanded, the three statements above can be shown to amount to the following Quinian doctrines and theses: (a) that translations of any sort will always be somewhat indeterminate, (b) that there is an inscrutability of reference, (c) that ontological commitments are relative to specific conceptual frameworks, (d) that theories are necessarily under-determined by the observations that support them, (e) that the efficacy of conceptual schemes must be evaluated holistically, (f) that intensional objects, such as meanings, propositions, attributes, and relations must be rejected, (g) that the notion of synonymy is irreconcilably misleading, as is (h) the notion of an analytic-synthetic distinction, and, finally, (i) that epistemological reductionism is a necessarily unachievable goal. 17

Obviously, I cannot argue that each of the above Quinian doctrines is a direct consequence of Quine's NB conception of language. However, I can sketch what such an argument should look like.

(a) The indeterminacy of translation thesis asserts that "manuals for translating one language into another can be set up in divergent ways, all compatible with the totality of speech dispositions, yet incompatible with
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one another”, and there is no sense to the question of any one translation being the uniquely correct one. For example, two field linguists, working independently of each other, might set up manuals for translating a foreign language such that the foreign sentence $S$ is translated as ‘Cats are gods’ by one linguist and as ‘Cats are not gods’ by the other. Quine’s indeterminacy thesis claims that where both translations are consistent with the speech dispositions of all parties concerned, both are equally justified and there is no answer (and, therefore, no sense) to the question of which of the two translations is uniquely correct. The crucial point is that according to the NB conception of language the linguists have only the behavioral dispositions of the foreigner upon which to base their translations, and if no possible behavioral disposition can settle the question ‘What did the foreigner really mean by $S$?’ then the question is meaningless and uninformative.

(b) The doctrine of inscrutability of reference refers to indeterminacy as it applies specifically to the question of reference. For example, a foreigner might assent to (and dissent from) a linguist’s query of the foreigner’s expression ‘gavagai’ under just those conditions where the (English-speaking) linguist would do likewise to the query of ‘rabbit’. In other words, the foreigner’s stimulus meaning for ‘gavagai’ correlates with the linguist’s stimulus meaning for ‘rabbit’. But this correlation of behavioral dispositions is insufficient evidence for the linguist to conclude absolutely that the foreigner’s ‘gavagai’ refers to rabbits. Perhaps ‘gavagai’, if it refers at all, refers to undetached rabbit parts or to rabbithood, and so on. The only way for the linguist to settle such instances of the inscrutability of reference is by fixing upon the foreigner’s equivalents of English “plural endings, pronouns, numerals, the ‘is’ of identity, and its adaptations ‘same’ and ‘other’.” These, according to Quine, constitute the cluster of interrelated grammatical particles and constructions with which the individuating of terms of divided reference in English is connected. Unfortunately, however, this very same cluster of grammatical particles and constructions is itself susceptible to the indeterminacy of translation. In short, all the possible behavioral evidence is insufficient for settling absolutely the reference of the foreigner’s terms, and there is no evidence beyond the behavioral evidence to which the linguist can appeal. This, of course, is just what the NB thesis asserts. Hence, Quine’s claim that when we adopt a NB conception of language, we give up assurances of determinacy, determinacy of meaning and of reference, is surely correct.

(c) Ontological relativity is the doctrine which claims that it makes no sense to say what the objects of a theory are beyond saying how we interpret or reinterpret that theory in another; there is no saying absolutely what the objects of a theory are. If the linguist construes the foreigner’s ‘gavagai’ as referring to rabbits, he thereby settles part of the ontology of the foreigner’s
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theory of the world, but he has done so only in a relative sense, relative to the linguist's own understanding of 'rabbit' and to his own manual for translating. The doctrine of ontological relativity is, in short, a generalized result of the doctrine of inscrutability of reference. Consequently, the doctrine of ontological relativity similarly results from Quine's NB conception of language.

(d) The doctrine of under-determination of theories claims that theories about the world transcend all possible observations of the world, and further, that different, competing theories can be developed on the same observational basis. In a word, theories can be shown to be logically incompatible with one another, yet empirically equivalent. "This is a point on which I expect wide agreement," says Quine, "if only because the observational criteria of theoretical terms are commonly so flexible and fragmentary."

The explanation of why the criteria of theoretical terms are as Quine describes them can be found within his account of the way theoretical language is learned: by a series of irreducible, short leaps of analogy taken on bits and pieces of fragmentary evidence. Thus, the doctrine of under-determination, too, is shown to be connected with Quine's NB conception of language.

(e) The holism thesis claims that statements of a theory are not separately vulnerable to adverse observations, because it is only jointly as a theory that such statements imply their observable consequences. In other words, the individual sentences of a theory do not usually have unique ranges of confirming and infirming experiences associated with them. Thus, any one of the statements of the theory can be adhered to in the face of adverse observations by revising other statements in the theory. For example, a given theory might entail (or predict) that under certain conditions water boils at 212 degrees Fahrenheit. Now suppose we set up an experiment designed to test this claim only to find that our water boiled at 214 degrees Fahrenheit. Have we refuted the hypothesis? Not necessarily, not if we are willing to revise other statements in the theory. Perhaps our water is not pure, or some other condition was violated, or our thermometer is faulty, or we simply misread the thermometer. There are any number of ways of "saving the hypothesis," for despite appearances it is not the single hypothesis that is being tested, but the theory as a whole.

As with under-determination of theories, the reason for holism is to be sought within Quine's theory of language learning. The child learns the observational part of his language in well understood ways (by ostension), and then he must reconstruct a personally accessible linguistic structure by imitating what he hears about him, linking it tentatively and conjecturally (by analogic synthesis) to what he knows, until such time as ordinary processes of social correction result in his achieving fluent dialogue with his communi-
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Such learning "is not a continuous derivation, which, followed backward, would enable us to reduce scientific theory to sheer observation. It is a progress by short leaps of analogy." No wonder any one of the sentences in a theory can be adhered to, come what may, for empirical evidence simply cannot be allocated to the individual sentences of a theory in any unique way.

(f) Quine's rejection of intensional objects, including meanings, propositions, attributes, and relations is not a reaction to their being abstract objects. Rather, his concern is, for the most part, that we have no behavioral criteria for the identity of such objects. How do we know when we have one proposition and when we have two? How do we know when one attribute or relation is different from, or identical with, some other attribute or relation? But at a deeper level, Quine's claim is stronger, for it asserts that because these idioms are behaviorally indeterminate there are no answers to such questions. Here, again, it is Quine's commitment to the NB conception of language which shapes his position.

(g), (h) Quine's rejections of synonymy and the analytic-synthetic distinction are, in the end, based on the same measures as his rejection of intensional objects. Again, Quine sees the problem as a lack of behavioral criteria for identifying synonymous or analytic expressions. In responding to the charge that he demands unreasonably high standards of clarity for any proposed accounts of synonymy and analyticity, Quine replies that he seeks "no more, after all, than a rough characterization in terms of dispositions to verbal behavior." This remark perhaps better than any other clearly brings to the fore the connection between Quine's rejection of both synonymy and analyticity and his commitment to the NB conception of language.

(i) According to Quine, radical reductionism, the view that every meaningful statement can be reduced to statements about immediate experience, has been universally abandoned by modern empiricists. Nevertheless, their thought continues to be influenced by a subtler form of epistemological reductionism: "The notion lingers that to each statement, or each synthetic statement, there is associated a unique range of possible sensory events and that the occurrence of any of them would add to the likelihood of the truth of the statement, and that there is associated also another unique range of possible sensory events whose occurrence would detract from that likelihood." However, the plausibility of this form of epistemological reductionism has been scotched by the doctrine of holism. (Recall our water-boiling example.) Quine's holism thesis is an outright denial of this form of reductionism, and, as we noted, Quine's holism thesis is connected with the NB conception of language. Thus, we may conclude that Quine's rejection of epistemological reductionism results from his allegiance to the NB conception of language.
VI. Summary

I have tried to sketch the systematic character of Quine's philosophy by emphasizing its naturalistic-behavioristic basis. In particular, I have tried to do this by explaining how the NB conception of language (i.e., a naturalistic view of language and a behavioral view of meaning), once adopted and seriously adhered to, provides a heuristical framework within which the bulk of Quine's system develops. My view is that given Quine's genetic strategy together with his NB conception of language and the view that scientific theories are essentially linguistic structures, then science must be underdetermined by experience to the extent that theoretical language goes beyond the simple reiteration of observation sentences. Further, the theories of science will be viewed as holistically related to experience. In other words, it is not the case that every sentence of a scientific theory will possess its own unique empirical evidence or meaning. And, if scientific theories are both under-determined and holistic, then there must be indeterminacy of translation and inscrutability of reference as one moves from one account of experience to another. Furthermore, inscrutability of reference when sufficiently generalized commits one to a doctrine of ontological relativity. And, finally, Quinian holism entails the rejection of the traditional analytic-synthetic distinction and, similarly, classic attempts at epistemological reductionism. As one might expect, synonymy goes by the board, too, and with it, meanings, propositions, attributes, and relations. From Quine's behavioristic perspective, all such notions suffer from a lack of individuation.

Consequently, in Quine's fully developed philosophy the reader finds, not a mere collection of doctrines and theses on a multiplicity of apparently disparate philosophical topics, but rather, a systematic response to the epistemological question of how we acquire our theory of the world. Viewed from this new perspective, Quine's philosophy stands as a marked counterexample to the conventional wisdom that all the important philosophy produced during the last thirty or forty years is of the piecemeal variety, that no important systematic philosophy was produced in America during that time. 26

Notes

1 Roger F. Gibson, Jr., "Are There Really Two Quines?" Erkenntnis 15, 1980, pp. 349-70.
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6 In calling the thesis an "axiom," I do not mean that it is without empirical support, even though Quine never identifies empirical data in support of the thesis. I think he regards the thesis as something most people would believe to be true on the basis of their own experience. When I say the thesis is "central," I mean it is one of those theses Quine would hold. "Come what may."

7 Quine, "Philosophical Progress in Language Theory," p. 4.

8 This convenient way of formulating the definition of "stimulus meaning" is adapted from Paul Ziff's "A Response to Stimulus Meaning," The Philosophical Review 79 (January, 1970).

9 For a detailed account of his "scientific semantics" see Quine's "Use and Its Place in Meaning," Erkenntnis 13 (1970).


12 Quine, "Epistemology Naturalized," p. 75. This is one of the two "cardinal tenets of empiricism" that Quine accepts and defends. See note 13, below.

13 Ibid. This is the second of two "cardinal tenets of empiricism" that Quine accepts and defends. See note 12, above.

14 Quine, "The Nature of Natural Knowledge," pp. 74-75, my emphasis.


16 Ibid., p. 27.

17 The expansion of (1)–(3) also includes Quine's rejection of quantified modal logic and the basis for his pragmatic philosophy of science, but limitations of space preclude their being discussed here. See my The Philosophy of W. V. Quine: An Expository Essay, Foreword by W. V. Quine (Gainesville, Fla.: University Presses of Florida—A University of South Florida Book, 1982).

18 Quine, Word and Object, p. 27.

19 Quine, "Ontological Relativity," p. 32.


22 What prompts the "usually" in this formulation of the holism thesis are observation sentences. Observation sentences may be said to possess their individual ranges of confirming and infirming experiences. See Quine's "On Empirically Equivalent Systems of the World," Erkenntnis 9 (1975), p. 314.

23 Quine, "The Nature of Natural Knowledge," pp. 77-78.

24 Quine, Word and Object, p. 107.


26 I would like to express my gratitude to Paul A. Wagner and to the editors for their many incisive recommendations.