Quine and Chomsky on Language and Indeterminacy:

Is There a Debate?

by

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"QUINE AND CHOMSKY ON LANGUAGE AND INDETERMINACY:
IS THERE A DEBATE?"

submitted by Grant Baird

in partial fulfilment of the requirements for

the degree Master of Arts

for R. STANTON

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Abstract

For over twenty five years W. V. Quine and Noam Chomsky have been arguing over the significance of Quine's thesis of the indeterminacy of translation. After two-and-a-half decades of debate, a consensus has emerged that the indeterminacy thesis rests upon Quine's behaviorist bias, and so begs the question against Chomsky's cognitivism. The underlying assumption of this standard interpretation of Quine is that the dispute between Quine and Chomsky is either an *a priori* disagreement over the status of Chomskyan linguistics as a science, or else it is an empirical dispute over Quine and Chomsky's competing accounts of language. My aim in this thesis is to show that there is, in fact, no debate between Quine and Chomsky, and thus that the standard interpretation of Quine is fundamentally misconceived.

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First and foremost, I would like to thank my thesis supervisor, Professor Robert Stainton. Beginning as we did at opposite ends of the Quine-Chomsky divide, his willingness to take on this project was remarkable in itself. His patience and openness, along with his unfailing advice and encouragement, especially at times when the gulf seemed only to be widening, speaks volumes. I hope this example can serve as a lesson to students and teachers alike.

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The light which puts out our eyes
is darkness to us.

Thoreau

Introduction

Ever since the publication of Quine's *Word and Object*, philosophers have been arguing over the significance of Quine's thesis of the indeterminacy of translation. In recent discussions, the thesis has been treated as an attack on the scientific status of such disciplines as philosophical semantics, Chomskyan linguistics, cognitive psychology, and cognitive science. The underlying assumption of these discussions is that if the indeterminacy thesis is true, then the above disciplines are pseudo-sciences, and so should be excluded from the domain of natural science.

Not surprisingly, the indeterminacy thesis has generated a storm of controversy, much of it devoted to showing why the thesis fails as a critique of the above mentioned disciplines. No one has been more critical of the indeterminacy thesis than Noam Chomsky. In his 1969 essay, "Quine's Empirical Assumptions," Chomsky advanced an interpretation of Quine which has become so commonplace that it may fairly be called the "standard interpretation." According to Chomsky, the indeterminacy thesis is little more than an expression of a prejudice against cognitivist theories of language and mind.¹ In order for the thesis to function as an attack against mentalistic theories of language, Chomsky maintains that Quine will have to justify the behaviorist bias upon which the indeterminacy thesis is said to rest. Quine, however, never provides an *a priori* justification of behaviorist psychology; the disagreement between Quine and Chomsky is thus widely interpreted as a dispute over their competing accounts of language that is to be decided by future scientific research.

My central aim in this thesis is to show that, contrary to the standard interpretation, there is no disagreement between Quine and Chomsky. In my view, Quine

¹Examples of this interpretation abound in the literature. See for example any of Chomsky's work which deals with the indeterminacy thesis. As well, see Richard Rorty, "Indeterminacy of Translation and Truth," *Synthese*, Vol. XXIII, No. 4, March 1972, pp. 443-62; Stephen Stich, "Grammar, Psychology, and Indeterminacy," *The Journal of Philosophy*, Vol. LXIX, No. 22, Dec. 1972, pp. 799-818; John Searle, "Indeterminacy, Empiricism, and the First Person," *The Journal of Philosophy*, Vol. LXXXIV, No. 3, March 1987, pp. 123-46. We will be looking in particular at Alexander George, "Whence and Whither the Debate Between Quine and Chomsky," *The Journal of Philosophy*, Vol. LXXXIII, No. 9, Sept 1986, pp. 489-99.

and Chomsky have been systematically talking past one another. What has hitherto been viewed as one of the premier debates of modern philosophy has, I maintain, been widely misconceived. What I believe follows from this conclusion is that, far from begging the question against Chomsky, Quine's indeterminacy thesis, his attack on the analytic-synthetic distinction, and his behavioral orientation to the study of language, represents a powerful challenge to the coherence of Chomsky's philosophical views. However, spelling out this implication extends somewhat beyond the scope of this thesis, and so I must first rest content with establishing the thesis itself, namely, that there is no disagreement between Quine and Chomsky.

My focus will be the interpretation of the Quine-Chomsky disagreement presented by Thomas Ricketts in his paper, "Rationality, Translation and Epistemology Naturalized." According to Ricketts, the standard interpretation of Quine "misses the major point of his philosophy by misunderstanding both Carnap's notion of analyticity and the nature of the criticism Quine makes of it."² By tracing out connections between Quine's attack on analyticity and his naturalized epistemology, Ricketts tries to show that the standard interpretation presupposes the same "conception of rationality"³ which underlies Carnap's philosophy, precisely the conception Quine is said to have undermined with his attack on analyticity. My aim in Chapter One will be to clarify and to defend this reading of the disagreement.

Ricketts' attack on the standard interpretation is intended to clear the way for an alternative reading of the indeterminacy thesis. According to Ricketts:

The ... charge of incoherence [in Quine's view] is not rebutted by establishing some carefully reasoned asymmetry between linguistics and physics. Rather, the appearance of incoherence fades as we appreciate the general epistemological context in which Quine mounts his indeterminacy arguments.⁴

²Thomas Ricketts, "Rationality, Translation, and Epistemology Naturalized," *The Journal of Philosophy*, Vol. LXXIX, No. 3, March 1982, p. 118.

³*Ibid.*, p. 118.

⁴*Ibid.*, p. 118.

Ricketts' discussion one step further by looking in detail at the historical development of the dispute between Quine and Chomsky. I hope to show that Chomsky's objections to Quine are rooted in Chomsky's own *a priori* commitment to the mentalist paradigm. In the final analysis, we see that as the appearance of incoherence in Quine's view begins to fade, so the seeming significance of Chomsky's point of view fades proportionately. In the end, I believe the onus falls not upon Quine to justify his point of view, but rather upon Chomsky to make clear what his own viewpoint is.

A final note on method. Ricketts' interpretation of Quine stems from the work of Burton Dreben. Dreben's influence has, for the most part, been felt only indirectly through his students. Recently, however, Dreben's voice has reached a wider audience through a series of papers dealing with Quine's place in analytic philosophy. My understanding of Quine has been greatly influenced by Dreben's writings. On my reading, Dreben's work in the history of philosophy is modelled after Wittgenstein's *Philosophical Investigations*. Thus, I see Dreben as doing to the *debates* of philosophy what Wittgenstein attempted to do to the *problems* of philosophy -- namely, to expose their emptiness. My attempt to show that there is no debate between Quine and Chomsky is, then, an attempt to put Wittgenstein into practice after the fashion of Dreben.

Chapter One

The aim of this chapter is to clarify and to support Ricketts' contention that the standard interpretation of Quine's indeterminacy thesis rests on a misunderstanding of Quine's attack on analyticity. The chapter will be divided into five sections. The indeterminacy thesis will be presented in section (i). In section (ii), we look at Chomsky's reaction to the indeterminacy thesis and examine his disagreement with Quine. We see here how the standard interpretation emerges out of Chomsky's writings. As well, we see that Quine and Chomsky are talking past one another, suggesting that there is no substantial point of disagreement between them. The misunderstanding of Quine's attack on analyticity is then brought to the fore in section (iii), where we take a detailed look at some key aspects of Ricketts' paper. In section (iv), I try to clarify and to support Ricketts' interpretation by critically examining Alexander George's response to Ricketts, as it appears in George's paper, "Whence and Whither the Debate Between Quine and Chomsky?" In the fifth and final section, I reflect on a natural misunderstanding of Ricketts which takes him as having argued that the key to understanding Quine's dismissal of Chomsky's work is to see things from Quine's perspective or point of view. I try to show that this interpretation of Ricketts stems from the confused idea that Quine's naturalism represents a defensible position or view, one which expresses a deep insight into the nature of philosophical and scientific inquiry.

(i)

Quine's thesis of the indeterminacy of translation is intended as a challenge to the deep-rooted and widespread picture of the functioning of language which currently informs much of the work being done in the philosophy of mind, philosophical semantics, cognitive science, cognitive psychology, and Chomskyan linguistics. The picture I have in mind is well summed up in the often-heard slogan, "language is the medium through which we communicate our thoughts and ideas." At the heart of this picture lies the assumption that successful communication depends upon a complex system of mental states and processes which underlies our ability to use and understand language. The aim

of the indeterminacy thesis is to expose this picture as a modern-day mythology

The indeterminacy thesis was first presented by Quine in Chapter Two of *Word and Object*. Simply put, the thesis is this

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 one another. In countless places they will diverge in giving, as their respective translations of a sentence of the one language, sentences of the other language which stand to each other in no plausible sort of equivalence however loose.⁵

According to Quine, there is no sense in asking which of the possible translation manuals is correct, since they can all be set up in ways which are compatible with the totality of speech dispositions. Quine's challenge to the above mentioned picture of language stems from his conclusion to the effect that, if there is no sense in asking which of two competing translations of a given sentence is correct, there is likewise no sense in asking which meaning, or idea, or proposition gets expressed by the sentence in question. Quine's aim in Chapter Two of *Word and Object* is to make this conclusion plausible.

Quine begins his discussion by reflecting on an imaginary linguist's first efforts at translating a previously unknown language:

The recovery of a man's current language from his currently observed responses is the task of the linguist who ... is out to penetrate and translate a language hitherto unknown. All the objective data he has to go on are the forces that he sees impinging on the native's surfaces and the observable behavior, vocal and otherwise, of the native. Such data evince native "meanings" only of the most objectively empirical or stimulus-linked variety. And yet the linguist apparently ends up with native "meanings" in some quite unrestricted sense; purported translations, anyway, of all possible native sentences.⁶

Quine emphasizes that the first expressions to be translated will no doubt be those closely associated with sensory experiences shared both by the natives and the linguist. He imagines a first encounter thus: "A rabbit scurries by, the native says 'Gavagai', and the linguist notes down the sentence 'Rabbit' (or 'Lo, a rabbit') as a tentative translation,

⁵W. V. Quine, *Word and Object* (Cambridge: The M.I.T. Press, 1960), p. 27.

⁶Ibid., p. 28.

subject to testing in further cases."⁷

In order to make sense of the relationships between native utterances and their stimulus conditions, Quine introduces the notion of a "stimulus meaning." Quine's discussion of stimulus meanings is prolonged and somewhat technical; the basic idea can be stated simply enough, however. The *affirmative* stimulus meaning of a sentence *S* is defined as the class of all the stimulations that would prompt assent from a speaker *p* at time *t*. Conversely, the *negative* stimulus meaning of a sentence *S* is defined as the class of all the stimulations that would prompt dissent from a speaker *p* at time *t*. A *stimulus meaning* is then defined as the ordered pair of the two sets of stimulations. With "stimulus meaning" thus defined, two utterances are said to be "stimulus synonymous" if they have the same stimulus meaning. And so we may say that the observation sentences "Gavagai" and "Rabbit" are stimulus synonymous, that they have the same stimulus meaning, if each of the native and the translator will assent to or dissent from the queries "Gavagai?" and "Rabbit?" under stimulus conditions equivalent for each speaker.

Because stimulus meanings are linked by definition to dispositions to verbal behavior, whatever sense Quine makes of the linguist's work will thus hinge on the connection between stimulus meanings, the proposed translations, and the verbal dispositions of the speakers in question. The discussion of the middle sections of Chapter Two of *Word and Object* aims to determine how much of the translator's work can be made sense of in these terms, though the details of Quine's discussion need not concern us.⁸ The important point to see is that the linguist's translations are bound to be based

⁷Ibid., p. 29.

⁸The following, in Quine's view, defines how much of translation can be made sense of in terms of stimulus meanings: "(1) Observation sentences can be translated. There is uncertainty, but the situation is the normal inductive one. (2) Truth functions can be translated. (3) Stimulus-analytic sentences can be recognized. So can the sentences of the opposite type, the "stimulus-contradictory" sentences, which command irreversible dissent. (4) Questions of intrasubjective stimulus synonymy of native occasion sentences even of non-observational kind can be settled if raised, but the sentences cannot be translated." *Word and Object*, p. 68. For Quine, these four constraints help to define the objective limits of radical translation.

on observable dispositions and sensory stimulations. However, only a minimal amount of native speech can be translated on this basis. How then does the linguist proceed? According to Quine, by segmenting and equating bits of native speech with English words and phrases, that is, by establishing what Quine refers to as "analytical hypotheses." With these in hand, the linguist continues by translating sentences tied tenuously to present circumstances, eventually arriving at a complete manual of translation for the native language.

To appreciate how the indeterminacy of translation works, let us reflect briefly on the much belaboured "Gavagai" example. As remarked above, "Gavagai" can be translated by the English sentence "Rabbit," since the two sentences have the same stimulus meaning. According to Quine, however, translation of the one-word sentence "Gavagai" is unable to fix the reference of "gavagai" taken as a term. Quine writes:

Who knows but what the objects to which this term ['gavagai'] applies are not rabbits after all, but mere stages, or brief temporal segments, of rabbits? In either event the stimulus situations that prompt assent to 'Gavagai' would be the same as for 'Rabbit'. Or perhaps the objects to which 'gavagai' applies are all and sundry undetached parts of rabbits; again the stimulus meaning would register no difference.⁹

The problem is that, at such an early stage of translation, the linguist does not know enough about the native language to help decide between "rabbit," "undetached rabbit part," "temporal stage of a rabbit," and so on, as translation of "gavagai." Even pointing to the intended referent is of no help. As Quine says:

Point to a rabbit and you have pointed to a stage of a rabbit, to an integral part of a rabbit, to the rabbit fusion, and to where rabbithood is manifested. ... Nothing not distinguished in stimulus meaning itself is to be distinguished by pointing, unless the pointing is accompanied by questions of identity and diversity: 'Is this the same gavagai as that?', 'Do we have here one gavagai or two?'¹⁰

To ask these sorts of questions, however, one requires a command of the native's apparatus of individuation, including the native equivalent of our identity predicate, plural

⁹Ibid., pp. 51-2.

¹⁰Ibid., pp. 52-3.

endings, pronouns, numerals, etc. This command is acquired on the basis of the linguist's analytical hypotheses. As Quine points out in "Ontological Relativity," however, where one manual of translation translates a native expression as "is the same as," another manual may translate the same native expression as "belongs with," with compensatory adjustments made throughout the manual. Quine draws the moral thus:

Then when in the native language we try to ask "Is this *gavagai* the same as that?" we could as well be asking "Does this *gavagai* belong with that?" Insofar, the native's assent is no objective evidence for translating "gavagai" as "rabbit" rather than "undetached rabbit part" or "rabbit stage."¹¹

The interesting thing about this example of the indeterminacy of reference is that it is not meaning as a mysterious mental entity which is indeterminate, but rather the references themselves. The point Quine draws from the example is that there is no sense in asking what a person is really referring to independent of a language or conceptual scheme (or manual of translation):

It is meaningless to ask whether, in general, our terms "rabbit," "rabbit part," "number," etc., really refer respectively to rabbits, rabbit parts, numbers, etc., rather than to some ingeniously permuted denotations. It is meaningless to ask this absolutely; we can meaningfully ask it only relative to some background language.¹²

Quine then goes on to compare this "ontological relativity" to relativity in physics:

Querying reference in any more absolute way would be like asking absolute position, or absolute velocity, rather than position or velocity relative to a given frame of reference.¹³

Quine's comparison of ontological relativity to relativity in physics is, I believe, intended to help one avoid reading Quine as having imposed an *a priori* restriction upon one's ability to know what words "really" refer to. Quine's point is that there is no more sense to this question than there is to the question of what an object's absolute position or

¹¹Quine, "Ontological Relativity," *Ontological Relativity and Other Essays*, (New York: Columbia Univ. Press, 1969), p. 33.

¹²Ibid., p. 48.

¹³Ibid., p. 49.

velocity is. In other words, Quine has not tried to show that we cannot know what our words really refer to, nor has he tried to show that objects do not exist for our words to refer to; rather, he has tried to show that it makes no sense to speak in either of these two ways.

Such is the indeterminacy of reference. Indeterminacy of translation in the fuller sense applies not simply to the meanings of terms, but to the meanings of sentences taken as wholes. As we have seen, translation of native utterances beyond the remove of verbal dispositions and stimulus meanings depends upon the linguist's choice of analytical hypotheses. But because of the arbitrariness of the linguist's choices, it is to be expected that different linguists engaged in translating the same language would construct manuals which differ with respect to their translations of equivalent native sentences. According to Quine, there is no question of right or wrong choice between the competing sets of analytical hypotheses; for, the analytical hypotheses extend beyond the limits of a theory of translational meaning. Quine writes:

From the point of view of a theory of translational meaning the most notable thing about the analytical hypotheses is that they exceed anything implicit in any native's dispositions to speech behavior. By bringing out analogies between sentences that have yielded to translation and others they extend the working limits of translation beyond where independent evidence can exist.¹⁴

The conclusion Quine draws is that, independent of a language or conceptual scheme (or manual of translation), there is no sense in asking what a sentence means, or, similarly, of what idea or proposition a sentence really expresses. This conclusion represents Quine's challenge to the prevailing picture of language now dominating the philosophical and psychological landscapes. Our focus now is on Chomsky's reaction to this challenge

(ii)

Chomsky's interpretation of the indeterminacy thesis first appeared in his essay, "Quine's Empirical Assumptions." Chomsky's objections set the stage for future

¹⁴Quine, *Word and Object*, p. 70.

discussions; for, rather than argue against the indeterminacy thesis, Chomsky acknowledged it, only to suggest that it was uninteresting:

It is quite certain that serious hypotheses concerning a native speaker's knowledge of English, or concerning the essential properties of human language ... will "go beyond the evidence." ... Since they go beyond mere summary of data, it will be the case that there are competing assumptions consistent with the data. But why should all of this occasion any surprise or concern?¹⁵

Chomsky's interpretation of the indeterminacy thesis was based upon his reaction to Quine's distinction between a theory as underdetermined on the one hand, and a theory as indeterminate on the other. According to Quine, all theories in the natural sciences are underdetermined in the sense that it is possible for us to construct alternative theories consistent with available observational evidence, even though the theories are mutually inconsistent. On the other hand, a theory is said to be indeterminate when it remains underdetermined with respect to natural science *as a whole*, that is, when it remains underdetermined even after we settle on one unique, albeit underdetermined, view of the facts. Chomsky has never challenged the distinction between underdetermination and indeterminacy; what he challenges is Quine's point in making the distinction:

To understand the [indeterminacy] thesis clearly it is necessary to bear in mind that Quine distinguishes sharply between the construction of analytical hypotheses on the basis of data and the postulation of "stimulus meanings of observation sentences" on the basis of data. ... [In the latter case] induction leads us to "genuine hypotheses", which are to be sharply distinguished from the "analytical hypotheses" Hence Quine has in mind a distinction between 'normal induction', which involves no serious epistemological problem, and 'hypothesis formation' or 'theory construction', which does involve such a problem. Such a distinction can no doubt be made; its point, however, is less than obvious.¹⁶

Chomsky agrees that we can make a distinction between indeterminacy and underdetermination, or between theory construction which does involve an epistemological

¹⁵Noam Chomsky, "Quine's Empirical Assumptions," in *Words and Objections*, eds. D. Davidson and J. Hintikka (New York: Humanities Press, 1969), pp. 66-7.

¹⁶*Ibid.*, p. 61.

problem and theory construction which does not; however, he sees no point in making this distinction, since he sees no reason to think that the construction of analytical hypotheses on the basis of data is anything more than simply underdetermined. In order to make the point of the distinction clearer, Chomsky maintains that Quine would have to

justify the empirical assumption that the mind is natively endowed with the properties that permit 'normal induction' to 'genuine hypotheses', but not 'theory construction' with some perhaps narrowly constrained class of "analytical hypotheses."¹⁷

In this passage, Chomsky depicts Quine as having made an arbitrary and unsupported empirical assumption about the mind as an object of scientific inquiry, namely, that we cannot entertain speculative theories about it. In order to convince Chomsky of the indeterminacy thesis, Quine would therefore have to prove that the mind -- as an object of inquiry -- is in some sense different from the other objects studied by natural scientists.

Quine did not accept this diagnosis of their disagreement. In his "Reply to Chomsky," Quine maintained that Chomsky's interpretation rests on a failure to appreciate the point of the distinction between theoretical physics and translational synonymy. Quine then responded to Chomsky, not by offering a justification of his position, but rather by attempting to clarify the point of the distinction between physics and translation:

[The distinction consists] essentially in this: theory in physics is an ultimate parameter. There is no legitimate first philosophy, higher or firmer than physics, to which to appeal over physicists' heads. ... Though linguistics is of course a part of the theory of nature, the indeterminacy of translation is not just inherited as a special case of the under-determination of our theory of nature. It is parallel but additional.¹⁸

And what does this addition come to? Quine continues:

Thus consider the totality of truths of nature, known and unknown, observable and unobservable, past and future. The point about the indeterminacy of translation is that it withstands even all this truth, the whole truth about nature. This is what I mean by saying that, where indeterminacy of translation applies, there is no real question of right choice; there is no *fact of the matter* [emphasis added] even to *within* the

¹⁷Ibid., p. 61.

¹⁸Quine, "Reply to Chomsky," in *Words and Objections*, p. 303.

acknowledged under-determination of a theory of nature.¹⁹

Notice, however, that although these remarks help to clarify the distinction between indeterminacy and underdetermination, the clarification does not meet Chomsky's challenge. For what Chomsky wants to know is *why* we ought to think that translation is indeterminate in some special way. As he was to put it six years later in *Reflections on Language*:

When Quine asserts that there is no fact of the matter, no question of right choice, he is once again merely reiterating an unargued claim which does not become more persuasive on repetition.²⁰

But although Quine did not offer a justification of his position, he did offer some thoughts on why he believed Chomsky was unable to grasp the point of it. Quine's diagnosis bears quoting at length:

Translation is fine and should go on. "All of this"²¹ occasions no crisis in linguistics What "all of this" does occasion, if grasped, is a change in prevalent attitudes toward meaning, idea, proposition. And in the main the sad fact is, conversely, that "all of this" escapes recognition precisely because of the uncritical persistence of old notions of meaning, idea, proposition. A conviction persists, often unacknowledged, that our sentences express ideas, and express these ideas rather than those, even when behavioral criteria can never say which. ... This is why one thinks that one's question 'What did the native say?' has a right answer independent of choices among mutually incompatible manuals of translation. In asking "But why should all of this occasion any surprise or concern?" Chomsky did not dismiss my point. He missed it.²²

This passage brings two important points to light. First, Quine does not see the indeterminacy of translation as a problem for linguistics. The indeterminacy thesis does not threaten any research projects, nor does it challenge any accepted scientific theory, nor does it question obvious facts about language or translation. What it does challenge,

¹⁹Ibid., p. 303.

²⁰Chomsky, *Reflections on Language* (New York: Random House, 1975), p. 183.

²¹The phrase is Chomsky's. See footnote 15.

²²Quine, "Reply to Chomsky," p. 304.

however, is a common and uncritical intuition about the functioning of language, namely, that our sentences serve to express thoughts determinate in our minds. The second point of interest is that it is the persistence of this intuition which blocks understanding of the point behind the indeterminacy thesis, namely, that this intuition does not accord with the facts.

To help us understand Quine's claim that it is the persistence of the old notions which he is trying to combat that blocks understanding of his point, let us consider Chomsky's response to Quine's claim that the indeterminacy thesis entails "a change in prevalent attitudes toward meaning, idea, proposition." In *Reflections on Language* Chomsky writes:

Consider two theoretical propositions of the theory of language, P, which asserts that sentence *s* "expresses these ideas," and P', which asserts that *s* "expresses those ideas." ... [And] suppose we interpret the phrase "behavioral criteria" as meaning simply "relevant evidence." Thus what is proposed is that we abandon the conviction that P differs empirically from P' where there is no relevant evidence bearing on the choice between them. But with this proposal the scientist will readily agree. In this respect, the study of language (specifically, translation) is on a par with other branches of empirical science. To choose between P and P', we will seek relevant evidence²³

The choice Chomsky presents between the two sentences P and P', is intended to mirror the choice he feels we can make between the competing manuals of translation. Notice, however, that Chomsky begins by speaking of our having to choose between sentences which are said to express ideas, as though it were already clear what such a choice amounts to. The above passage thus illustrates what Quine means when he says that the old notions which the indeterminacy thesis is meant to challenge get in the way of understanding the indeterminacy thesis. Given Chomsky's example, it will indeed appear that Quine has made an arbitrary assumption about the evidence available to the linguist. In short, it will appear that Quine has, for some reason, restricted the evidence in such a way as not to allow the linguist to choose which idea it is that gets expressed by a sentence. Quine, however, makes no such assumption; rather, he provides a behavioral

²³Chomsky, *Reflections on Language*, pp. 184-5.

discussion of our translational practices which winds up with the indeterminacy thesis. The significance of the thesis is that it presses against the notions with which Chomsky seems to begin.

As the last quoted passage makes clear, Chomsky is convinced that there is a fact of the matter between the competing manuals of translation; we need only seek the relevant evidence. As we learn in *Rules and Representations*, Chomsky believes that Quine's conclusion to the contrary -- that there is no fact of the matter -- rests ultimately upon Quine's commitment to behaviorism:

The conclusion that there is ... "no fact of the matter" is what seems entirely unwarranted, particularly if one is unwilling to draw the same conclusion for physics on the same grounds.²⁴

If we do not accept Quine's *arbitrary* limitation of experiment to investigation of assent and dissent and consider other evidence as well, the assumption that the other person is like us in relevant respects would be confirmed ... [emphasis added].²⁵

The last quoted passage serves to indicate that Chomsky views his disagreement with Quine as a dispute over their competing accounts of language, i.e., as a dispute between cognitivism and behaviorism.

In "Quine's Empirical Assumptions," Chomsky maintained that the indeterminacy thesis rests on arbitrary empirical assumptions about properties of the mind which necessarily exclude it from being an object of inquiry. In *Rules and Representations*, Chomsky maintained that the indeterminacy thesis rests on a commitment to behaviorism. Though the analyses differ, the underlying thrust is the same: in both cases, the claim that translation is indeterminate, as opposed to being simply underdetermined, is said by Chomsky to rest on unwarranted empirical assumptions. This interpretation of the indeterminacy thesis is particularly damaging; for, not only does Chomsky seem to place the onus upon Quine to prove that there is no fact of the matter to translation, it seems

²⁴Chomsky, *Rules and Representations* (New York: Columbia Univ. Press, 1980), p. 258, note 26.

²⁵*Ibid.*, p. 21.

also to put Quine in the position of having to defend an approach to psychology now widely assumed to be of little value. Moreover, the interpretation is (apparently) supported by Quine's reactions to it. Chomsky's objections seem always to place the onus upon Quine to produce substantial evidence in support of his position. Quine, however, seems simply to ignore this demand, thereby reinforcing the conclusion that the indeterminacy thesis rests merely on a prejudice. Indeed, from the perspective of the standard interpretation, nothing short of behaviorism's second coming would likely count in Quine's favour.

But do we need to accept this interpretation of the indeterminacy thesis? In the foregoing discussion I have tried to raise two points which suggest that we need not accept the standard interpretation of Quine. The first point is that Quine does not simply ignore Chomsky's objections by *merely* restating his position; rather, Quine restates his position in order to make clearer the point which he believes Chomsky has missed. The second point of interest is that whereas Chomsky believes Quine's position to be explanatorily inadequate, Quine believes that Chomsky's position is rooted in the uncritical acceptance of a misguided picture of the functioning of language. Namely, that our sentences serve to express thoughts determinate in our minds. Appreciating these differences between Quine and Chomsky does, I think, cast an air of suspicion over the standard interpretation and the view that the disagreement between Quine and Chomsky is a dispute over their competing accounts of language. Clearly, though, more will need to be said in order to expose the standard interpretation as misguided. More is found, I believe, in Ricketts' contention that the standard interpretation rests on a misunderstanding of the significance of Quine's attack on analyticity.

(iii)

Ricketts' opening discussion is designed to make Carnap's philosophy clear in a way that helps us to appreciate Quine's attack on analyticity. There has been, as Ricketts observes, a tendency to read Quine's attack on analyticity primarily as a critique of verificationist theories of sentence meanings. To be sure, "Two Dogmas of Empiricism" does represent a strong challenge to verificationist theories of individual sentence

meanings. However, as an attack on Carnap, which it is first and foremost, Quine's attack on analyticity amounts to something more. In particular, it amounts to a rejection of what Ricketts refers to as Carnap's "conception of rationality" which, according to Ricketts, continues to underlie much of contemporary philosophy, and, in particular, the standard interpretation of Quine.

Ricketts begins with the following explanation of Carnap's conception of "rational reconstruction":

The enterprise begins with the thought that there is a genuine dispute among truly rational investigators -- as opposed to one form or another of verbal quibble -- only if there is, antecedent to the resolution of the dispute, agreement as to the investigatory results -- the experimental outcomes or computations, for example -- that would resolve it.²⁶

This much is incontestable: there is little hope of resolving a dispute if we cannot agree on what might be taken to settle the disagreement. The Carnapian thought is that such agreement is possible only if the disputants share the same linguistic "context" or "framework." The point of Carnapian rational reconstruction, then, is to make this so-called context explicit.

Ricketts emphasizes that Carnap's philosophy is only loosely tied to any form of verificationism. Carnap's search for a criterion of empirical meaningfulness was the search for a distinguishing feature of the framework of *science*. Ricketts writes:

A criterion of empirical meaningfulness is the specification of a favored species of linguistic framework into which all paradigmatically scientific disciplines, but no pseudo-science could be squeezed. The availability of such a criterion would enable the Carnapian to make out his criticism in a uniform way as opposed to a case-by-case comparison. By use of the criterion the Carnapian gives precision to the commendation "scientific."²⁷

Carnap's inability to find a general criterion of empirical meaningfulness does not, however, compromise his overall philosophical picture. What it means is that the individual frameworks of physicists, chemists, astrologers, metaphysicians, and so on, will

²⁶Ricketts, p. 118.

²⁷Ibid., p. 121.

have to be rationally reconstructed and compared case by case. The danger inherent in reading Quine's attack on analyticity solely as an attack on verificationism, is that one may see Quine's attack simply as a critique of one particular theory of meaning. The rejection of analyticity is much more than this, however. In particular, it is an attack on a long-standing view of philosophy which supposes that the philosopher can adopt a position or stance which is independent of natural science, thereby enabling the philosopher to make claims which are "higher and firmer" than the claims of scientists. This is a very traditional view of philosophy's relationship to science, one Quine thinks is manifest in Carnap's assumption that there is a principled distinction between the analytic and the synthetic. Quine's attack on analyticity is, then, an attack on the intelligibility of making a sharp distinction between philosophy and science.

Critics of Quine, Chomsky in particular, are often quick to accept the conclusion which Quine draws from his rejection of analyticity, namely, that philosophy is continuous with natural science. However, to acknowledge that philosophy and science are continuous is not necessarily a criterion of having understood what such an acknowledgment entails. The standard interpretation of Quine is a case in point. For to read the indeterminacy thesis as an attack on the possibility of pursuing certain research projects, as well as to ask Quine for a justification of his behaviorism, is to implicitly embrace Carnap's view of the relationship between philosophy and science, precisely the view Quine's attack on analyticity is meant to undercut.

Let us look a little more closely at what Ricketts has to say about Quine's attack on analyticity. Ricketts emphasizes the importance for Carnap of having a criterion with which to attribute a linguistic framework to an individual. Ricketts writes:

In order to judge the rationality of the theorizing of an investigator, we must be in a position to ascertain independently of such judgments what framework, what rules, the investigator has adopted. ... We need ... a criterion for attributing a linguistic framework to an investigator, what I shall call a *criterion of analyticity*. Without such a criterion, we have no bench from which to deliver our epistemic judgments, and so find ourselves caught in a position of epistemic solipsism destructive of the

very ideal of rationality Carnap wants to articulate²⁸

Recall that the aim of rational reconstruction is to specify individual linguistic frameworks in order to distinguish mere verbal disputes from genuine disagreements. A criterion of analyticity is required in order to distinguish between statements of meaning and statements of fact, between the analytic and the synthetic. In the absence of a criterion, we would be unable to attribute a particular linguistic framework to an individual, and so would be unable to distinguish mere verbal quibbles from genuine disagreements. For, if there is no objective standard of what counts as a claim to knowledge -- i.e., of what counts as a synthetic statement of fact -- then, on Carnap's view, there is no way to determine whether a dispute between investigators is a dispute arising from a disagreement over how to account for the facts or, rather, a dispute arising from the investigators having adopted different linguistic rules. We thus appear to wind up in a position of epistemic solipsism, because what counts as a claim to knowledge becomes relative to individual investigators' decisions.

Having emphasized the importance of Carnap's having a criterion of analyticity, Ricketts calls our attention to a paper in which Carnap suggests that the analytic sentences of a given framework could be determined by studying a person's behavioral dispositions.²⁹ The first important point to see is that the indeterminacy thesis represents a response to Carnap's proposed criterion.³⁰ To appreciate the response, assume that we wish to specify the linguistic framework of an investigator who speaks a foreign language. In this case, the rational reconstruction will go hand-in-hand with the translation. What Quine shows in *Word and Object*, then, is that there can be alternative rational reconstructions which specify *conflicting* sets of analytic sentences, but which nevertheless agree in terms of the dispositions to behave on the part of both the scientific investigator and those engaged in trying to rationally reconstruct his or her purported linguistic

²⁸Ibid., pp. 123-4.

²⁹Carnap, "Meaning and Synonymy in Natural Languages," Appendix D of *Meaning and Necessity*, (Chicago: Univ. of Chicago Press, 1956), pp. 233-47.

³⁰Ricketts, p. 126.

framework. From the point of view of Carnap's project, if there is no way to choose between the competing manuals of translation, there is likewise no way to judge the rationality of the scientific investigator.

A second important point regarding Carnap's proposed criterion of analyticity has to do with Carnap's acknowledgment of psychology as the common framework from within which to make sense of rational reconstruction. According to Ricketts: "the mere acknowledgement of this demand [for a criterion of analyticity] vitiates Carnap's conception of rational reconstruction."³¹ To help us appreciate this claim, Ricketts calls attention to the following important passage from Quine's "Epistemology Naturalized"

But why all this creative reconstruction, all this make-believe? The stimulation of his sensory receptors is all the evidence anybody has had to go on, ultimately, in arriving at his picture of the world. Why not just see how this construction really proceeds? Why not settle for psychology?³²

The importance of this quote is that it characterizes Quine's attitude toward Carnap's conception of how to understand science. For Carnap, the central task of philosophy (of epistemology) is to set out the logic of the language of science so as to determine what counts as a legitimate scientific claim. However, Carnap's epistemology is not a part of natural science, and so it does not issue in claims true or false about the world. Quine, by contrast, in rejecting analyticity, sees epistemology as a part of science, specifically as a part of psychology. Quine's epistemology will, therefore, make genuine claims about the world. We see, for example, that from within Quine's naturalized epistemology, his seemingly significant philosophical claim that "no statement is immune to revision" is only the trivial empirical claim that there are no statements to which our dispositions to assent are irreversible (including the statements of logic and mathematics). As Ricketts points out, Quine's interest in behaviorist psychology lies in the hope that many of the terms and distinctions of positivist epistemology -- notions like "protocol sentence," "theory," "analyticity," and "synonymy" -- can be reconstructed in behaviorist terms. This

³¹Ibid., p. 125.

³²Quine, "Epistemology Naturalized," *Ontological Relativity and Other Essays*, p. 75.

is not, however, to be taken as meaning that Quine seeks to resurrect positivist epistemology. Quine's only concern is to reconstruct what terms he can so as to make them a useful part of our psychological theorizing about the actual workings of science.

In the final section of the paper Ricketts returns to an earlier point of his, namely, that Carnap might reply to Quine's indeterminacy arguments by abandoning the behaviorism and retaining analyticity. Ricketts emphasizes, however, that the proposal is pointless once it has been acknowledged that psychology represents the "common bench" from which to engage in rational reconstruction. The very point of rational reconstruction was to lay bare the rationality thought to characterize science. But psychology, whether it is behaviorist or cognitivist, does not stand apart from natural science. On the contrary, it is inextricably bound up with the rest of natural science and so is useless as a framework from within which to reconstruct the rationality thought to underlie science. As Ricketts observes:

the state of psychology being what it is, there is call for psychologists to untangle their manifold differences through Carnapian rational reconstruction. ... That this enterprise itself presupposes adoption of a framework for psychological theorizing, however, robs the psychologists of a common epistemic bench; for this presupposition is enmeshed in the issues at dispute.³³

In other words, Carnap's admission that psychology is the perspective from within which to engage in rational reconstruction "vitiates" his project, for it denies Carnap a perspective from within which to make sense of rational reconstruction.

Having tried to clarify some of the details of Quine's naturalized epistemology, Ricketts concludes his discussion by reconsidering Chomsky's objection to Quine. Ricketts begins by asking the following: "What question could Chomsky be asking when he inquires about why Quine counts just those disciplines he does as bona fide science?" Ricketts' first suggestion is that Quine could construe Chomsky as asking for a physical explanation "of Quine's disposition to assent to a certain sentence, the sentence which, as

³³Ricketts, p. 134.

we would say, demarcates science."³⁴ But clearly this is not what Chomsky wishes to know. Ricketts' next suggestion is that "Quine could construe Chomsky as offering a rival approach to Quine's behaviorism."³⁵ However, Ricketts points out that Quine would likely dismiss Chomsky's challenge, since Quine would not recognize the need for an alternative explanation. As Ricketts says:

To dismiss Chomsky's challenge here, Quine need only, from the vantage point of the physical theory of which psychology is a component part, express his justified confidence that every instance of speech behavior admits of a physical explanation. The failure of behaviorism shows only that we will not have very much to say by way of systematic explanation of verbal behavior until neurophysiology is far more advanced than it is today.³⁶

Ricketts is aware of course that Chomsky would not accept this response. In reply, Chomsky would likely claim that Quine's behaviorism is explanatorily deficient. Ricketts gives voice to Chomsky's response:

After all, though Quine's science explains each instance of speech behavior, putative regularities in linguistic behavior described in such mentalistic or cognitive terms as 'assertion', go unsubsumed, unexplained, by Quine's science.³⁷

This imagined reply is calculated to show that Chomsky's objections to Quine presuppose terms of discussion which Quine does not countenance. Ricketts' description of the debate places pressure on Chomsky's objection in such a way as to expose its roots in Chomsky's commitment to the mentalist paradigm. Hence Ricketts' final assessment of the dispute:

Now, from Quine's perspective, we see Chomsky as begging the question, or rather as failing to raise any question at all. The terms in which Chomsky characterizes the explanatory lacunae of Quine's science are just the terms Quine has already rejected as unscientific. The disagreement

³⁴Ibid., p. 135.

³⁵Ibid., p. 135.

³⁶Ibid., p. 135.

³⁷Ibid., p. 135.

between Quine and Chomsky is not a clash of rival theories addressed to the same data but a difference over what counts as data, over the terms we take for granted to represent data. Thus, there is no ground between them for cogent argument as opposed to persuasive rhetoric.³⁸

We have discussed in some detail Ricketts' views on the relationship between indeterminacy and analyticity, and, as well, the place of Quine's behaviorism within naturalized epistemology. Now, with this final assessment of the dispute, Ricketts calls into question the widespread assumption that the disagreement between Quine and Chomsky is a dispute over their competing accounts of language. If, as Ricketts suggests, there is no common ground between Quine and Chomsky, then it makes no sense to speak of their "alternative accounts," since there is no sense to the question, "alternative to what?" In short, to say there is no common ground between Quine and Chomsky is to say that the choice placed before us by the standard interpretation rests on a false dilemma.

At the end of section (ii), we saw that Quine and Chomsky appear to talk past one another, and we saw this inability to communicate as being at the heart of the standard interpretation and the view that the indeterminacy thesis rests on a gratuitous prejudice against cognitivism. Ricketts' discussion of the indeterminacy thesis and its relationship to Quine's attack on analyticity helps to clear the way for an alternative interpretation. Chomsky's insistence that Quine has in no way proved or demonstrated that linguistics isn't one of the natural sciences, does not represent an objection to Quine, but rather exposes Chomsky as having interpreted Quine through the lens of a set of distinctions and concepts which Quine does not recognize: to interpret the indeterminacy thesis as an attack on the possibility of pursuing certain research projects is to embrace a conception of philosophy long since abandoned by Quine as unintelligible.

(iv)

In order to help clarify the idea that Quine and Chomsky are talking past one another, we will look in this section at a response to Ricketts by Alexander George.

³⁸Ibid., pp. 135-6.

George offers an alternative description of the debate between Quine and Chomsky, one designed to show that there is a common ground between the two. George interprets the disagreement as a result of Quine and Chomsky "having adopted different strategies because of conflicting (a posteriori) conceptions of explanation," and he concludes that they are in fact "playing the same game."³⁹ George thus returns us to the standard interpretation and the view that the disagreement is a dispute over Quine and Chomsky's competing accounts of language.

The key to George's interpretation lies in his attempt to show (a) that "Chomsky and Quine are playing the same game in virtue of their common data, their commitment to innate structures, and their commendation of the neurophysiological as the level of 'deepest explanation,'"⁴⁰ and (b) that Quine and Chomsky share the same general problem, namely "the problem of 'causation of behavior,'"⁴¹ My aim in this section is to show that the idea that we have somehow to choose between Chomsky's cognitivism and Quine's behaviorism, is misguided.

The first point I want to emphasize is that Ricketts may well concede that Quine and Chomsky begin with the same data, including, for example, facts about people's behavior, facts about the behavioral contexts, as well as some facts about people's neural and physical make-up. For recall that Ricketts' point was that there was "a difference over what *counts* as data, over the terms we take for granted to *represent* data" [emphases added].⁴² The key terms "count" and "represent" cannot be overlooked. For the difference over how one speaks of the data is intimately connected with the questions one poses and, hence, with how the data get construed.

To illustrate Ricketts' point, consider the following example. We can well imagine a dispute which might arise between, say, a paleontologist and a creation scientist over

³⁹George, "Whence and Whither the Debate between Quine and Chomsky?", p. 499.

⁴⁰Ibid., p. 499.

⁴¹Ibid., p. 493.

⁴²Ricketts, p. 136.

their competing accounts of the fossil record. Falling in with the received scientific view, the paleontologist would no doubt interpret the fossil data as part of, and indeed as further evidence for, the evolutionary history of life on earth. By contrast, the creationist, not accepting that evolution has occurred, might interpret the same data as, for example, evidence that God is an artful deceiver. Here we have a clear-cut case, one not too far removed from fact, where despite an agreement over the data to be explained, there is a radical difference in the terms taken for granted to represent data. Ricketts' characterization of Chomsky's disagreement with Quine is, I believe, closely analogous with this example. As I will be suggesting toward the end of this section, and will discuss in detail in Chapter Two, Chomsky begins his theorizing about language by presupposing a mentalistic framework and poses his questions in mentalistic terms. And, as in the case of the creation scientist, I believe the mentalistic framework is imposed upon the data *a priori*, in the sense that it is embedded in Chomsky's pre-theoretical talk of what it is that requires explaining, thereby rendering otiose the hypothesized mental processes and mechanisms.

George suggests that there is a close affinity between Quine and Chomsky over the importance for language acquisition of "innate mechanisms." I believe it is misleading, however, to think that Quine and Chomsky's superficially similar talk of "innate structures" represents an important point of contact between the two. Quite the contrary; it signifies a difference. For Quine, talk of innate linguistic mechanisms is always to be interpreted in terms of unconditioned dispositions to speech behavior. As he wrote in his "Reply to Chomsky": "Chomsky rightly notes my *penchant* for innate ideas. Rightly, anyway, if we construe 'innate ideas' in terms of innate dispositions to overt behavior."⁴³ For Chomsky, however, talk of innate ideas or innate mechanisms signifies something entirely different. Chomsky is thinking in terms of innate grammatical rules, rules which we are said to "know" or "cognize" or "compute." These innate rules form part of what Chomsky calls *universal grammar*, that innate endowment of the human mind which enables it to "select" a specific grammar from amongst the

⁴³Quine, "Reply to Chomsky," p. 306.

humanly possible grammars. Quine and Chomsky may both be committed to innateness, but they construe "innateness" in radically different ways.

One might think that this last observation is obviated by Chomsky's frequent talk of the "mind/brain" and his contention that the abstract structures of his theories are, at least in principle, instantiated in physical mechanisms (including neural and genetic ones). But this would be misleading. Chomsky's abstract theories are not intended simply as an incidental guide to neurological investigation; innate grammars, cognized rules, mental representations, syntactic structures, and so on, are presumed to be as real as atoms and molecules and to be a part of physical mechanisms. Chomsky's commitment to neurology reflects his belief that the things and processes of his abstract theories are instantiated in the brain, not in a Cartesian-like mental substance. Conversely, Quine's commitment to neurology simply reflects his conviction that overt speech dispositions are symptomatic of an individual's neural make-up; Quine does not interpret neurology in cognitive terms.

What then of George's contention that Quine and Chomsky are both concerned with the so-called "problem of causation of behavior"? To begin with, the claim is vague to the point of being unobjectionable: any scientist, from any discipline, who is interested in human behavior may be said to share interest in this problem. The claim is thus no more useful as a means of establishing a common ground between Quine and Chomsky than it is in establishing a common ground between, say, astrologers and astronomers. Furthermore, George's characterization of Quine's main concern is misleading. As the following quote will begin to make clear, George is reading, and indeed presenting Quine in distinctly Chomskyan terms:

Both Quine and Chomsky seek to sort the nature from the nurture in the fact that normal humans, after minimal experience, can engage in dazzlingly complex tasks; that they can "strike back ... [through] a torrent of discourse" in spite of impoverished upbringings. ... In putting forward the thesis [of ontological relativity], Quine views himself as taking the first serious step toward answering the central question, "Whence the torrent of discourse?"⁴⁴

George's emphasis on a language learner's minimal experience and impoverished

⁴⁴George, p. 490.

upbringings, stems from Chomsky. According to Chomsky, no one is presented with enough linguistic data to allow fully for the construction of a grammar of the language one is learning. Chomsky thus concludes that much of our so-called linguistic knowledge must be innate. For Chomsky, a theory of universal grammar – a theory of the innate linguistic knowledge characteristic of human beings -- would represent an important step toward answering the question, "Whence the torrent of discourse?"

But is this Quine's question? In a sense it is. And the sense becomes clearer once we consider the complete passage from which George quoted a (highly) select fragment of Quine's writing. In "The Scope and Language of Science" Quine writes:

I am a physical object sitting in a physical world. Some of the forces of this physical world impinge on my surface. Light rays strike my retinas; molecules bombard my eardrums and fingertips. I strike back, emanating concentric air waves. These waves take the form of a torrent of discourse about tables, people, molecules, light rays, retinas, air waves, prime numbers, infinite classes, joy and sorrow, good and evil.

My ability to strike back in this elaborate way consists in my having assimilated a good part of the culture of my community, and perhaps modified and elaborated it a bit on my own account. All this training consisted in turn of an impinging of physical forces, largely other people's utterances, upon my surface, and of gradual changes in my own constitution consequent upon these physical forces. All I am or ever hope to be is due to irritations of my surface, together with such latent tendencies to response as may have been present in my original germ plasm.⁴⁵

Notice how Quine begins in the second paragraph his explanation of the austere physicalistic account of the facts provided in the first paragraph. Quine views the matter behaviorally: we assimilate the culture of our community; we react to this culture in different ways; we sometimes modify the culture. Quine then returns to a more physicalistic account, emphasizing that this *training* consists to a large degree in having our sensory receptors stimulated by the verbal behavior of individuals in the community. And he adds that there may even be genetic tendencies to respond to stimulations in selective ways. The important point to see is that, as this behavioral and physicalistic

⁴⁵Quine, "The Scope and Language of Science," *The Ways of Paradox and Other Essays* (Cambridge, MA: Harvard Univ. Press, 1976), p. 228.

account of our activities gets spelled out in ever increasing detail, one loses the sense of how or where Chomsky's talk of mental processes and mechanisms fits into Quine's discussion. This is a point we will return to in Chapter Two. It is of crucial significance for an understanding of Quine and of the indeterminacy thesis.

Quine's rejection of Carnap's conception of philosophy as the logic of science looms large in the above quoted passage. No longer can the philosopher assume a position "higher or firmer" than the science of the day. Indeed, Quine's own discussion begins with the (empirically motivated) insight that the evidence for what goes on around us stems ultimately from the activation of our sensory receptors. As he says in *Word and Object*:

The motivating insight, viz. that we can know external things only through impacts at our nerve endings, is itself based on our general knowledge of the ways of physical objects — illuminated desks, reflected light, activated retinas.⁴⁶

This insight is an important part of Quine's overall philosophical project, namely "to ponder our talk of physical phenomena as a physical phenomenon, and our scientific imaginings as activities within the world that we imagine."⁴⁷ For Quine, the question "Whence the torrent of discourse?" is, if anything, a question about the relationship between our sensory stimulations and our talk about an antecedently acknowledged physical world.

George is correct to emphasize the significance of the theory of language learning to Quine. But this significance is to be understood within the context of Quine's naturalistic investigation of our scientific talk about the world. For the theory of language learning will help to establish the connection between words and sentences on the one hand, and certain of our sensory stimulations on the other. As Quine remarks in the section of *Word and Object* entitled "Evidence":

Words can be learned as parts of longer sentences, and some words can be learned as one-word sentences through direct ostension of their objects.

⁴⁶Quine, *Word and Object*, p. 2.

⁴⁷*Ibid.*, p. 5.

In either event, words mean only as their use in sentences is conditioned to sensory stimuli, verbal and otherwise. Any realistic theory of evidence must be inseparable from the psychology of stimulus and response, applied to sentences.⁴⁸

As Quine frequently observes, we learn words and how to use them in shared observable circumstances, through such diverse means as listening to others, reading books, looking up dictionary definitions, being taught in school, and so on. Quine's emphasis on the psychology of stimulus and response stems simply from the fact that this psychology is particularly useful in providing an understanding of the way we learn words and sentences which are keyed directly to sensory experience. Quine's interest in this aspect of our psychology stems from his interest in providing a "realistic theory of evidence."

By way of contrast, consider the following passage from *Reflections on Language*, where Chomsky sets out to explain in a non-technical way the "point and purpose of the enterprise" in which he and others are engaged:

A human language is a *system* of remarkable complexity. To come to know a human language would be an extraordinary intellectual achievement for a creature not specifically designed to accomplish this task [emphasis added].⁴⁹

One is immediately struck by the appearance of the word "system." What does it mean?

Why not say simply that languages are complex? Our queries are soon answered:

A normal child acquires this knowledge on relatively slight exposure and without specific training. He can then quite effortlessly make use of an *intricate structure of specific rules and guiding principles* to convey his thoughts and feelings to others, arousing in them novel ideas and subtle perceptions and judgments. For the conscious mind ... it remains a distant goal to reconstruct and comprehend what the child has done intuitively and with minimal effort. Thus language is a *mirror of mind* in a *deep and significant* sense [emphases added].⁵⁰

Here we see, I believe, that Chomsky's non-technical attempt to state the point and purpose of his enterprise is far from innocent. Chomsky's conclusion to the effect that

⁴⁸Ibid., p. 17.

⁴⁹Chomsky, *Reflections on Language*, p. 4.

⁵⁰Ibid., p. 4.

language is a mirror of mind is, I want to suggest, already contained in his talk of language as a system of rules and principles used to convey thoughts and feelings from one individual to another. In other words, Chomsky's informal depiction of the facts to be explained, his construing of the data, appears to come with a philosophical picture *already* operative, namely, that of language as the mirror of our thoughts and feelings.

Further evidence of the analytic containment of Chomsky's conclusions within his basic premises appears in *Rules and Representations*. In Chapter One Chomsky writes:

To begin with, let us assume that it makes sense to say, as we normally do, that each person knows his or her language, that you and I know English for example, that this knowledge is in part shared among us and *represented somehow in our minds*, ultimately in our brains, *in structures that we can hope to characterize abstractly*, and in principle quite concretely, in terms of physical mechanisms [emphases added].⁵¹

It is, as Chomsky says, common enough to speak of someone's knowing a language. However, it cannot be overstated that, normally speaking, no one talks of one's knowledge of a language as being "shared among us," still less of it being "represented in the mind," and certainly never of it being represented "in structures." The interesting point is that Chomsky believes this to be an unobjectionable, presumably because ordinary, way of speaking. Here too, the picture of language as a system and as the mirror of mind appears already to be contained within Chomsky's pre-theoretical talk about language. However, if one begins by speaking about language as a system and as representing what goes on in the mind, then such questions as, "How does one come to know a particular grammar?" and "How much of one's linguistic knowledge is innate?" will appear natural and unobjectionable. These questions, however, seem of little relevance from the perspective of Quine's behavioral and physicalistic discussion of verbal behavior. I will have a good deal more to say about this in Chapter Two.

We are now in a better position to evaluate George's final assessment of the disagreement between Quine and Chomsky. According to George:

If Chomsky is wrong in claiming that any "attempt ... to study directly the relation of behavior to past and current experience is doomed to triviality

⁵¹Chomsky, *Rules and Representations*, p. 5.

and scientific insignificance" (*Reflections on Language*, p.17), because Quine's isolate-the-dispositions-then-find-the-mechanism approach will bear fruit, then Quine's position is stable. If Chomsky is correct, then the Quinean scientist will be faced with the choice of dismissing the data, leaving them mysterious, or altering her strictures on explanation.⁵²

It is unlikely, however, that Quine's position, no matter how productive, would ever satisfy Chomsky. For it is no longer clear that Quine and Chomsky are even addressing the same questions. To be sure, they are both concerned with language and language learning. But Chomsky's way of construing the issues seems to presuppose the very ideas which Quine is trying to combat.

According to George, the failure of Quine's science would leave Quine "faced with the choice of dismissing the data, leaving them mysterious, or altering [his] strictures on explanation." In other words, George depicts Quine as having the option of either dogmatically clinging to his view, or else embracing cognitivism. In the light of the above reflections, however, Chomsky's cognitivism appears less as an alternative to Quine and rather more as an entirely different way of construing the issues. Quine would thus not face the choice of dismissing the data, as George suggests; for Quine would construe the data differently in terms of sensory stimulations, speech dispositions, and already accepted neuroscience. It is thus no more of a problem for Quine to leave the data mysterious than it would have been, say, for Mendel to leave his account of inheritance mysterious until chemistry was better developed. Similarly, it is no more necessary for Quine to change his strictures on explanation, than it would have been for Mendel.

George's aim was to defend the standard interpretation by presenting an alternative description of the debate between Quine and Chomsky. I have tried to show that George's account fails in two important respects: first, it fails to establish that Quine and Chomsky share similar theoretical commitments; and, second, it fails to show that Quine and Chomsky are even addressing the same problem. George's failure to demonstrate these two points is perhaps less surprising when we consider his opening assessment of the disagreement:

⁵²George, p. 499.

Quine correctly stresses the nature and significance of indeterminacy. He maintains that linguistic theory shares this fate, that it is underdetermined relative to natural science. Thus, what Quine and Noam Chomsky dispute is whether linguistic theory is one of the natural sciences
⁵³

Here, it seems, George has simply missed the point which Ricketts was most concerned to make, namely, that a dispute over whether linguistics is (or is not) one of the natural sciences makes no sense from a naturalistic point of view. In keeping with Ricketts' terminology, then, we may respond to George by pointing out that such a dispute presupposes a view of philosophy which Quine has spent much of his life trying to discredit. As we have seen, to conceive of Quine as having tried to prove or to demonstrate that Chomsky's work is not a part of natural science, is to have misunderstood Quine's project. This misunderstanding is revealed when one objects that Quine nowhere argues for a distinction between what does (and does not) count as legitimate science. For in the light of his attack on analyticity, we see that Quine simply lacks the resources to make such a distinction.

(v)

In spite of one's willingness to acknowledge Ricketts' analysis of the standard interpretation, there is nevertheless a strong inclination to inquire into the grounds of Quine's dismissal of Chomsky. As we noted in the introduction, Ricketts' resists the temptation to seek a "carefully reasoned asymmetry between linguistics and physics," and claims, instead, that "the appearance of incoherence [in Quine's view] fades as we appreciate the general epistemological context in which Quine mounts his indeterminacy arguments." However, this claim is easily misinterpreted; for, one is inclined to read Ricketts as saying that the key to understanding Quine's rejection of Chomsky is to see things from Quine's perspective. The effect of this reading is to leave Quine on even shakier ground than he was before. For our appreciation of Quine's dismissal of Chomsky's work now seems to rest, not on an argument or theory against it, but rather

⁵³Ibid., p. 490.

on a mysterious shift in perspective.

To see how this interpretation misunderstands Ricketts, let us begin by considering Ricketts' claim, "the indeterminacy thesis does rest on a prejudice, but a prejudice not aptly dismissed as gratuitous." This conclusion represents Ricketts' response to the standard interpretation; it is intended to suggest an alternative reading of Quine which does not beg the question against Chomsky. All too quickly, however, one naturally assumes Ricketts to be saying that Quine's prejudice is, in some sense, *reasonable*. In the light of Quine's attack on analyticity, one willingly acknowledges that the reasonableness does not stem from some argument or theory. Rather, Quine's point of view is *itself* taken as the justification. But then the problem, of course, is that we seem never quite sure just what this viewpoint is, nor how to characterize it in a way which (a) reveals how it differs from Chomsky's and (b) why Quine's viewpoint should be preferred.

Against this interpretation we need to recall an earlier discussion of ours. In section (iii) we saw that Quine's interest in behaviorist psychology lies in his conviction that many of the concepts and distinctions of positivist epistemology can be recast in behaviorist terms.⁵⁴ Quine's hope is that these refurbished notions will become a useful part of our psychological theorizing about natural science. From this point of view, Quine's emphasis on behaviorism does indeed seem prejudiced, since he does not use the concepts and distinctions of cognitivist psychology for the same purposes. But because these purposes have nothing to do with a critique of cognitivism, it would not be apt to dismiss this prejudice as gratuitous. Of course, this fails to explain why Quine refuses to countenance Chomsky's work as a part of serious science. But it would be a mistake to conclude from this that we must now look to Quine's perspective in order to see why *it* precludes, apparently *a priori*, Chomsky's theories.

It is interesting to see that Ricketts' final characterization of the disagreement

⁵⁴For example, "protocol sentences" are recast in terms of "observation sentences," "meaning" is recast as "stimulus meaning," and "sensations" are recast as stimulations of one's sensory receptors.

between Quine and Chomsky is itself suggestive of the idea that the key to understanding Quine stems from grasping Quine's particular perspective or point of view. As we saw in section (iii), Ricketts provides the following assessment of the dispute between Quine and Chomsky:

The disagreement ... is not a clash of rival theories addressed to the same data but a difference over what counts as data, over the terms we take for granted to represent data. Thus, there is no ground between them for cogent argument as opposed to persuasive rhetoric.⁵⁵

In conjunction with the conclusion that the indeterminacy thesis rests on a prejudice, this passage strongly suggests that the disagreement between Quine and Chomsky stems from their having adopted different explanatory frameworks or points of view. In a sense this is true: Quine and Chomsky seem clearly to be talking in different terms. However, one should not flatly assume Ricketts to be saying that we have somehow to choose between two mutually exclusive points of view. For recall Ricketts' earlier remark: "But now, from Quine's perspective, we see Chomsky as begging the question, or rather as failing to raise any question at all." Spelled out explicitly, the "choice" Ricketts has in mind is between a legitimate scientific project (behaviorism and neuroscience) on the one hand, and a collection of meaningless remarks posing as a scientific theory, on the other hand. Of course, here one wants to ask why it is that Chomsky's viewpoint is said to be meaningless. And, noting that neither Quine nor Ricketts have any argument to offer, one leaps to the conclusion that Ricketts must be saying that the key is to see things from Quine's viewpoint.

This conclusion turns Ricketts on his head. The problem comes from our reading too much into his talk of contexts, perspectives, and points of view. Quite innocently, one will say that there are two different points of view, namely, Quine's and Chomsky's, between which we have somehow to choose. But notice how this sets things up in a way which requires us to engage in *a priori* philosophy of the sort that Quine and Ricketts are saying makes no sense. For consider: if one adds that Chomsky's viewpoint is unscientific, two alternatives immediately present themselves: either there is an argument

⁵⁵Ricketts, p. 136.

or theory which demonstrates that Chomsky's point of view is unscientific, or else coming to see things from within Quine's perspective itself reveals Chomsky's viewpoint to be unscientific. But, then, in the light of Quine's attack on analyticity, what does *this* talk of perspectives and contexts amount to?

Not unaware of this interpretive difficulty, Ricketts took steps in his final paragraph to dispel some of the misleading connotation: inherent throughout his earlier discussions. Ricketts begins by noting that his final assessment of the dispute has a Carnapian ring to it. He writes:

This final characterization of the difference between Quine and Chomsky, with its talk of cogent argument versus persuasive rhetoric and disagreement over data as opposed to theory, is suffused with an aura of *deja vu*. For all the world it sounds as if the disagreement between Quine and Chomsky stems from a *divergence of framework* rather than a conflict of belief [emphasis added].⁵⁶

Then, in an important move designed to dispel this misleading connotation, Ricketts concludes by emphasizing the empirical character of Quine's theorizing:

Quine indicates the bounds of science from within, through *general and substantive scientific claims* evoking what Quine calls his "realist" or "physicalist bias." ... The convolutions in Quine's argumentation cannot then be bull-dozed away as some of my remarks perhaps suggest. For Quine himself lacks any position corresponding to my *expository* perspective from which to offer my description of the debate between him and Chomsky. The point of the rejection of analyticity is that there is no such perspective [emphases added].⁵⁷

This paragraph is intended as a warning against repeating the same misreading as the standard interpretation. That is to say, Ricketts is here cautioning us against presupposing the same conception of rationality presumed to have been undermined by Quine's attack on analyticity. The emphasis on the empirical character of Quine's philosophizing serves to indicate that Quine lacks the resources required to rule out *a priori* some particular area of inquiry. Notice as well the second last line of the passage. What it says, in effect, is

⁵⁶Ibid., p. 136.

⁵⁷Ibid., p. 136.

that we are not to interpret expository remarks about Quine's "perspective" or "point of view" as if they signify something definite or determinate which can be clearly and coherently specified or characterized. Rather, we are to see these remarks for what they are -- an expository device.

Consider finally the last line of the paper, "The point of the rejection of analyticity is that there is no such perspective." I believe Ricketts' intent is reasonably clear: the remark serves as a final emphatic reminder on how *not* to interpret Ricketts' preceding discussions. And, to repeat the point in a slightly different way, we are not to interpret Ricketts as having argued that there is a point of view, namely Quine's, which, once grasped, exposes Chomsky's views as incoherent or meaningless. In a discussion of this nature, however, it should come as no surprise that the remark can also be interpreted in a manner opposed to what I've just suggested. Intuitively, the comment strikes one as expressing, even if cryptically, something about the true significance of Quine's rejection of analyticity. Thus interpreted, the remark seems to express a deep insight into the significance of Quine's naturalistic perspective and, consequently, to provide insight into why Quine is opposed to Chomsky's work. However, thus interpreted the remark is also meaningless. For to what could Ricketts be referring when he says "there is no such perspective"? If he can tell us, then the claim that there is no such perspective would have to be an empirical claim, which surely it is not. If, however, Ricketts cannot say to which perspective he is referring, then the remark makes no sense.

But let us not quibble over what Ricketts intended to convey by his final sentence. The more interesting question concerns the source of all this interpretive difficulty. In what follows, I would like to suggest that the problem stems primarily from our talk of Quine's naturalism as though it were a defensible position or view, one which expresses something about the nature or essence of scientific inquiry. There is more than a little hint of the idea in Ricketts' final comment, especially when it is compared to his earlier claim that the standard interpretation of Quine "misses the major point of his philosophy." With naturalism thus conceived, one is tempted to assume, albeit too quickly and too uncritically, that to grasp the meaning of Quine's naturalism is to grasp why it is that Quine rejects so much of contemporary philosophy and psychology. A closer look at

what Quine actually has to say about naturalism does much to relieve this temptation however.

Quine speaks of naturalism in both a positive and a negative way. Positively speaking, Quine writes: "naturalism: the recognition that it is within science itself ... that reality is to be identified and described."⁵⁸ While on the negative side we find: "naturalism: abandonment of the goal of a first philosophy prior to natural science."⁵⁹ Together, they become the metaphor of Neurath's boat:

[M]y position is a naturalistic one; I see philosophy not as an *a priori* propaedeutic or groundwork for science, but as continuous with science. I see philosophy and science as in the same boat -- a boat which, to revert to Neurath's figure as I so often do, we can rebuild only at sea while staying afloat in it. There is no external vantage point, no first philosophy.⁶⁰

Quine's remarks on the source of naturalism are equally revealing. He writes:

Naturalism has two sources, both negative. One of them is *despair* of being able to define theoretical terms generally in terms of phenomena, even by contextual definition. ... The other negative source of naturalism is unregenerate realism, the *robust state of mind* of the natural scientist who has never felt any qualms beyond the negotiable uncertainties internal to science [emphases added].⁶¹

To sum up: the point of the rejection of analyticity, of Quine's naturalism, is that philosophy and science are like a boat which is adrift at sea. Hence, if one attempts to say something about philosophy and science (i.e., to repair the boat) by stepping outside of philosophy and science (i.e., by stepping off of the ship), then one is immediately lost (at sea). And a certain measure of despair brought on by the failure of Carnap's attempt in *Der Logische Aufbau der Welt* to reconstruct science on a phenomenalist basis, plus a robust state of mind like that of the average natural scientist, should help one to

⁵⁸Quine, "Things and Their Place in Theories," *Theories and Things* (Cambridge, MA: The Belknap Press of Harvard Univ. Press, 1981), p. 21.

⁵⁹Quine, "Five Milestones of Empiricism," *Theories and Things*, p. 67.

⁶⁰Quine, "Natural Kinds," *Ontological Relativity and Other Essays*, pp. 126-7.

⁶¹Quine, "Five Milestones of Empiricism," p. 72.

appreciate this. Such is Quine's naturalism, metaphysically construed. The point has been made perfectly by Dreben in his recent paper, "*In Mediis Rebus*":

The Quinean reader hopes he understands what Quine is struggling to do: to combat a very traditional, very seductive, but nevertheless "incoherent" supposition, viz., there is a God's - eye perspective, an Archimedean point, an Olympian position, outside of all theory, from whence "reality is to be identified and described", from whence truth is to be discerned. *At best only metaphor will do* [emphasis added].⁶²

I shall run the risk of sounding redundant and repeat the point once more. To search for something over and above the things Quine says, something which goes beyond the arguments Quine gives and the ideas he develops, to search for the all important idea, the motivating insight, *the point* which lies behind Quine's work, is to engage in a search which makes no sense. As the above quotations from Quine make patently obvious, and as Dreben emphasizes, *at best* one will end up speaking in metaphors. Let us then abandon the forlorn hope that there is some way to grasp the essence of Quine's philosophical vision and so to understand how his philosophy precludes the possibility of Chomsky's theories of language. When Ricketts says that the incoherence of Quine's view will begin to fade as we come to appreciate the epistemological context within which Quine's views have developed, let us construe the phrase "appreciating the epistemological context" to mean, appreciating the problems Quine is addressing, the similarities and differences between Quine and other philosophers, the ideas that influence Quine, his personal interests, the connections between different aspects of his philosophy, and so on. Surprisingly, this kind of understanding -- and what other kind is there? -- is often overlooked by philosophers. To assume there is something more -- an argument, a theory, a guiding idea -- beyond the things Quine says and the context in which he says them, is of a piece with the standard interpretation of Quine.

⁶²Burton Dreben, "*In Mediis Rebus*," *Inquiry*, Vol. 37, 1994, p. 446.

Chapter Two

As we saw in Chapter One, the standard interpretation of Quine holds that the indeterminacy thesis represents little more than an expression of a gratuitous prejudice against cognitivist theories of language and mind. In order to support the indeterminacy thesis, it is therefore assumed that Quine must defend his behaviorist bias. According to Ricketts, this interpretation of Quine relies upon a conception of rationality widely assumed to have been undermined by Quine's attack on analyticity. On Ricketts' view, to ask Quine for a justification for not countenancing Chomskyan linguistics as one of the natural sciences, is to ask something which makes no sense; it is to presuppose a framework of discussion long since abandoned by Quine as unintelligible.

In this chapter, I want to develop two ideas that were prominent in the first: (i) that Chomsky misconceives Quine's naturalistic study of verbal behavior and thus objects to a view which Quine does not hold; and (ii) that Chomsky's interpretation and critique of Quine stem from an *a priori* commitment to the mentalist paradigm.

(i)

Ricketts' interpretation of Quine, influenced as it is by Dreben, was one of the first attempts to reflect on the indeterminacy thesis in the light of Quine's relationship to the philosophical tradition that has shaped Quine's work. By focusing on the problems of the past, Ricketts and Dreben are forcing us to re-think the issues which have come to shape the present. Looking back, we recall that part of the great significance of the linguistic turn in philosophy, at least insofar as it was embodied in Wittgenstein and Carnap, lay in the shift in emphasis from talking about such things as knowledge, existence, meaning, and mind, to talking about "knowledge," "existence," "meaning," and "mind." It was a shift from talking philosophy, to talking about our philosophical talk. And, for Wittgenstein and Carnap, the significance of this lay in our coming to appreciate the meaninglessness of the traditional questions of philosophy.

Quine's "Two Dogmas of Empiricism" thus represents one of the pivotal moments in twentieth century philosophy. For with this paper, Quine singlehandedly challenged

a conception of philosophy which had dominated since the time of Wittgenstein's *Tractatus* — a conception which viewed the traditional problems as meaningless, and relied upon a sharp analytic-synthetic distinction to make this meaninglessness manifest. But, as is so often the case with well-meaning attacks on ideology, a challenge to one becomes at once a prelude to another. Such, I believe, has been the fate of Quine's "Two Dogmas." The standard interpretation of Quine is, I think, symptomatic of a much more widespread misunderstanding of Quine's naturalism. For Quine's attack on analyticity, his blurring of "the supposed boundary between speculative metaphysics and natural science,"⁶³ appears to have dislodged the keystone of analytic philosophy, only to see it replaced by another, naturalistic one. According to this new conception, the problems of philosophy are to be regarded as problems in principle no different from those of natural science and are to be pursued in the same scientific spirit. We see therefore that Ricketts' focus on the dispute between Quine and Chomsky cuts far deeper than one might initially expect; for no one has symbolized this new naturalistic conception of philosophy better than Chomsky himself. Let us look a little more closely then at how Chomsky conceives his project.

In his opening paper of the 1988 workshop entitled, "The Chomskyan Turn," Chomsky begins by recounting the central focus of his inquiries:

The basic concept, which identifies the subject of inquiry, is the concept of "having" or "knowing" a language. ... Concerning this concept, three fundamental questions at once arise:

- 1 What constitutes knowledge of language?
- 2 How is such knowledge acquired?
- 3 How is such knowledge put to use?⁶⁴

As we know from Chomsky's previous writings, these questions are not to be divorced from more traditional epistemological concerns. For example, in *Reflections on*

⁶³Quine, "Two Dogmas of Empiricism," *From a Logical Point of View*, 2nd edition, Revised (Cambridge, MA: Harvard Univ. Press, 1976), p. 20.

⁶⁴Chomsky, "Linguistics and Adjacent Fields: A Personal View," in *The Chomskyan Turn*, Asa Kasher ed. (Cambridge, MA: Basil Blackwell, 1991), p. 6.

Language Chomsky writes:

The questions that I want to consider are classical ones. ... From Plato to the present time, serious philosophers have been baffled and intrigued by the question that Bertrand Russell ... formulated in this way: "How comes it that human beings, whose contacts with the world are brief and personal and limited, are nevertheless able to know as much as they do know?"⁶⁵

The difference now, however, is that "Plato's problem" is to be re-cast in a scientific framework:

The same question arises, as a question of science, if we ask how comes it that human beings with such limited and personal experience achieve such convergence in rich and highly structured systems of belief, systems which then guide their actions and interchange and their interpretation of experience.⁶⁶

There is a tendency when reflecting on the philosophical significance of Chomsky's work to become mired in the details of his investigations into grammar and syntax; however, Chomsky has continually stressed that the questions he is interested in are essentially no different from questions that philosophers have been asking for centuries. The key difference between Chomsky and his predecessors is that he believes the scientific study of language can, for the first time, yield insight into philosophical questions which have hitherto seemed intractable:

Much of the interest of the study of language, in my opinion, lies in the fact that it offers an approach to Plato's problem in a domain that is relatively well circumscribed and open to inquiry If we can discover something about the principles that enter into the construction of this particular cognitive *system*, the principles of the language *faculty*, we can progress toward a solution for at least one special and quite important case of Plato's problem [emphases added].⁶⁷

Pointing out that Chomsky's mentalistic theories are an attempt to answer long-standing philosophical questions about language and mind would not, of course, be

⁶⁵Chomsky, *Reflections on Language*, p. 5.

⁶⁶Ibid., p. 5.

⁶⁷Chomsky, *Knowledge of Language* (New York: Praeger, 1986), 1975, p. xxvi.

viewed by Chomsky as an objection to his views. After all, it is Chomsky who insists upon drawing the connection between his work and more traditional questions about knowledge and mind. Indeed, the fact that much of the work being done in linguistics, psychology, and cognitive science is intimately connected with traditional philosophical questions is viewed not with suspicion, but rather with a certain degree of excitement and anticipation. For the first time, we appear on the verge of gaining substantial insight into the nature of human knowledge and understanding. And it is to Quine, first and foremost, that the credit must go for having shaped the intellectual climate in which contemporary naturalistic philosophy has been able to flourish. Ironically, no one has been more critical of the work being undertaken in this naturalistic spirit, than Quine himself. Here we hit upon one of the key differences between Quine and Chomsky. For Chomsky, taking the naturalistic turn means that we are free to bring the methods and findings of science fully to bear on the traditional questions of philosophy. For Quine, by contrast, naturalism entails that we abandon the traditional problems in favour of new, scientific ones. Chomsky's version of naturalism has become the accepted standard within philosophy; indeed, it is the driving force behind much of the speculative work being done in the philosophy of mind, linguistics, and cognitive science. In order to help clarify this difference between Quine and Chomsky, let us look a little more closely at what naturalism means for Quine.

It is important to see that although Quine did attack Carnap's way of doing philosophy, he did not necessarily reject the spirit in which it was done. Quine is no more a friend of speculative metaphysics parading under the banner of science, than is Carnap. But whereas Carnap spent his entire philosophical life trying to *say* why the traditional problems are meaningless, Quine, by contrast, tends simply to dismiss them by retaining the old terms and making sense of a new project. The following passage from Carnap's review of Quine's first book, *A System of Logistic*, helps to illustrate this difference in attitude between Carnap and Quine:

Quine's desire to be easily understood has led him to intentionally use the standard material mode of speech in many places where the formal mode would have been more exact. ... Of course, Quine himself at no point is seduced by pseudoquestions through the use of the material mode of

speech; however, his formulations in many places are such that some philosophers will attempt to relate them to pseudoquestions.⁶⁸

As far back as 1935 Carnap had recognized, and indeed was lamenting, Quine's philosophical method, but not necessarily Quine's philosophy. This difference between Carnap and Quine would manifest itself most conspicuously in their disagreement over how to speak about the word "ontology." To Carnap, the word represents one of the great trouble spots for philosophers, continually seducing them into asking what he calls pseudo-questions. For Quine, however, speaking of ontology is no problem; he simply avoids the pseudo-questions:

When I inquire into the *ontological commitments* [Quine's emphasis] of a given doctrine or body of theory, I am merely asking what, according to that theory, there is. I might say in passing, though it is no substantial point of disagreement, that Carnap does not much like my terminology here. Now if he had a better use for this fine old word 'ontology,' I should be inclined to cast about for another word for my own meaning. But the fact is, I believe, that he disapproves of my *giving* meaning to a word which belongs to traditional metaphysics and should therefore be meaningless. Now my ethics of terminology demand, on occasion, the avoidance of a word for given purposes when the word has been preempted in a prior meaning; *meaningless words, however, are precisely the words which I feel freest to specify meanings for* [emphases added].⁶⁹

Does Quine have controversial things to say about ontology, epistemology, semantics, etc.? What the above passage indicates is that this question cannot be given a straightforward answer, since it is not clear that Quine is using the traditional philosophical terms in the sense we normally take for granted. For example, when Quine speaks of ontology, he speaks only about what scientists tell us there is; when he speaks about epistemology, he is speaking about the psychological investigation of our scientific theorizing; and when he speaks of semantics, as we shall see, he is speaking about

⁶⁸The actual review is in German, and appears in the journal *Erkenntnis*, vol. 5, 1935-6, pp. 285-7. This translated passage appears in Dreben, "Quine," *Perspectives on Quine*, R. Gibson ed. p. 91, note 52.

⁶⁹Quine, "On Carnap's Views on Ontology," *The Ways of Paradox and Other Essays* (Cambridge: Harvard Univ. Press, 1976), p. 203.

lexicography. For Quine, then, naturalism entails that we engage in a radical re-thinking of all that has hitherto stood for as "philosophy." Indeed, as Quine reshapes our philosophical vocabulary, the traditional philosophical problems are typically dissolved. Quine's retention of the traditional philosophical vocabulary can be misleading however; for, it makes Quine appear as though he were giving radical new (scientific) answers to the old problems, when he has in fact been engaged in a radical re-casting of the problems themselves.

In his paper dedicated to Quine, Dreben suggests that there is no sharp break between the Quine of old and the Quine of late.⁷⁰ The claim is interesting, if true, since it supports the earlier suggestion made in Chapter One that Quine's naturalism does not represent a philosophical theory or point of view which is somehow supported by Quine's attack on analyticity. Nevertheless, it was not until the publication in 1950 of "Two Dogmas" that Quine's major differences with Carnap became visible. And it was not until the publication of *Word and Object* ten years later that we saw the full implications for philosophy of the naturalistic turn. Early in Chapter One of *Word and Object* Quine reflects on the significance of the move:

If we improve our understanding of ordinary talk of physical things, it will not be by reducing that talk to a more familiar idiom; there is none. It will be by clarifying the connections, causal or otherwise, between ordinary talk of physical things and various further matters which in turn we grasp with help of ordinary talk of physical things.⁷¹

Word and Object thus begins with a radical new orientation toward language: no longer can the philosopher assume a privileged epistemic position and thereby seek to put language (and knowledge) on a firmer footing than science. Rather, the language of science is itself taken as an *object* of scientific inquiry:

In a general way, therefore, I propose ... to ponder our talk of physical

⁷⁰"Moreover, the celebrated Quinean doctrines on use and mention, meaning, truth, quantification, ontological commitment, the very nature of logic and even of philosophy itself all evolved from their roots (often tangled) in 'The logic of sequences'" – Quine's PhD. dissertation. Dreben, "Quine," pp. 81-2.

⁷¹Quine, *Word and Object*, p. 3.

phenomena as a physical phenomenon, and our scientific imaginings as activities within the world that we imagine.⁷²

The first fruits of this new orientation appeared in Chapter Two of *Word and Object*. In order to appreciate the significance of this chapter, it is important to bear in mind that Quine begins with the important insight that our evidence about what goes on in the world comes solely via the stimulation of our sensory receptors, there being no telepathy or divine revelation. An understanding of our talk of physical things thus requires an investigation into the relationship between our scientific talk and the stimulations which support it. Hence Quine's introductory remarks in Chapter Two:

The voluminous and intricately structured talk that comes out bears little evident correspondence to the past and present barrage of non-verbal stimulation; yet it is to such stimulation that we must look for whatever empirical content there may be. In this chapter we shall consider how much of language can be made sense of in terms of its stimulus conditions, and what scope this leaves for empirically unconditioned variation in one's conceptual scheme.⁷³

Quine then goes on to explain that sense can be made of the phrase "empirically unconditioned variation" by looking at the enterprise of translation. The result is the indeterminacy thesis.

Quine begins his investigations in Chapter Two by stating his focus thus:

We are concerned here with language as the complex of present dispositions to verbal behavior, in which speakers of the same language have perforce come to resemble one another⁷⁴

⁷²Ibid., p. 5. Dreben has stressed the importance of this quotation in several of his recent papers. For example, in "Putnam, Quine -- and the Facts," *Philosophical Topics*, Vol. 20, No. 1, Spring 1992, p. 314, note 52, Dreben writes: "This quotation gives the key to all of Quine's work, and sets him apart from his predecessors and contemporaries. No philosopher of our time has taken so seriously and drawn such radical conclusions from viewing our doing of physics as part of physics. Quine has applied to our talk *about* physics -- that is, to our theory of physical theorizing, our so-called philosophy of physics -- exactly the same criteria of sense and nonsense, of meaningfulness and meaninglessness, that he thinks is applied in physics."

⁷³Ibid., p. 26.

⁷⁴Ibid., p. 27.

This remark is significant; it represents another important point of disagreement between Quine and Chomsky. I want now to focus attention on Chomsky's reaction to this comment, noting as well Quine's replies to Chomsky. I do so for two reasons. First, because it affords us yet another opportunity to see the extent to which Quine and Chomsky are talking past one another. And, second, because I believe it exposes Chomsky's objections to Quine as being directed at a view which Quine does not hold.

(ii)

Chomsky begins "Quine's Empirical Assumptions" by characterizing Quine as having advanced in *Word and Object* "what appears to be a narrowly Humean theory of language acquisition."⁷⁵ According to Chomsky, the difference between Quine and Hume is that Quine has replaced Hume's "impressions" and "ideas" with stimulations and linguistic forms (words and sentences). This suggests to Chomsky the following interpretation of Quine's remarks on language:

If the Humean theory is roughly accurate, then a person's knowledge of language should be representable as a *network* of linguistic forms ... associated with one another and, in part, associated to certain stimulus conditions [emphasis added].⁷⁶

Chomsky derives support for this interpretation in the following way. He points out, first, that Quine characterizes a theory as "a fabric of sentences variously associated to one another and to non-verbal stimuli by the mechanism of conditioned response."⁷⁷ Chomsky then observes that Quine uses the terms "theory" and "language" interchangeably and so concludes "that Quine must be proposing that a language, too, is 'a fabric of sentences'" Further support for this conclusion is found in the remark quoted above from Chapter Two of *Word and Object*. Chomsky writes:

Elsewhere, Quine states that he is considering a language as a "complex of present dispositions to verbal behavior, in which speakers of the same

⁷⁵Chomsky, "Quine's Empirical Assumptions," p. 53.

⁷⁶Ibid., p. 53.

⁷⁷Quine, *Word and Object*, p. 11.

language have perforce come to resemble one another" (p. 27). Thus if a language is a network of sentences associated to one another and to external stimuli by the mechanism of conditioned response, then it follows that a person's disposition to verbal behavior can be characterized in terms of such a network. This factual assumption is far from obvious.⁷⁸

Chomsky's next step is to argue that this factual assumption is manifestly false.

Before we consider Chomsky's critique of Quine, it is important to note that Chomsky is reading Quine as having offered a *definition* of "language."⁷⁹ Notice, however, that in setting his focus in Chapter Two, Quine could simply have said, "We are concerned here with ... the complex of present dispositions to verbal behavior, in which speakers of the same language have perforce come to resemble one another." Clearly there is such a complex — Chomsky himself has no particular objection to Quine's discussion of the identification of stimulus meanings by way of isolating shared dispositions.⁸⁰ There seems little reason, then, to think that Quine provides in *Word and Object* a definition, let alone an account, of what a language is. That Chomsky reads Quine as having provided a definition of "language" suggests that Chomsky has not fully appreciated the true motivation behind Quine's remarks on the early mechanisms of language learning. As we noted in section (i) of this chapter, Quine is reflecting in *Word and Object* on our *talk* of physical phenomena as a physical phenomenon. Central to this investigation will be a characterization of the relationship between sensory stimulations and our early learning of words and sentences; for, it is in ordinary language that our scientific speculations begin, and it is via the stimulation of our sensory receptors that our speculations receive their evidential support. Furthermore, there is little doubt as to the significance of having one's early associations between words and objects rewarded (or discouraged) by members of the speech community; for it is only thus that we can

⁷⁸Chomsky, "Quine's Empirical Assumptions," p. 54.

⁷⁹Chomsky refers to Quine's remark explicitly as a definition on p. 57.

⁸⁰Chomsky may however object that behaviorists are unable *in principle* to state their project without relying upon the mentalistic idiom. But see Chapter IV of *The Pursuit of Truth* (Cambridge, MA: Harvard Univ. Press, 1990) for a possible response, see esp. pp. 70-3.

reasonably expect individuals to associate similar words with similar ranges of sensory stimulation.⁸¹ From the point of view of Quine's theory of scientific evidence, then, there is bound to be a large degree of overlap between the language of everyday and the language of science. Recognition of why there is such an overlap should help one to avoid reading too much into Quine's tendency to use the terms "language" and "theory" interchangeably. As well, Quine's emphasis on behaviorism, at least in this context, is not controversial, not even from Chomsky's viewpoint. With both of these thoughts in mind, let us move on to Chomsky's critique of Quine.

Chomsky begins by considering Quine's discussion of the learning of words and sentences, interpreting Quine's remarks in a manner he feels is consistent with Quine's purported view of "language as a network of sentences." In fact, Chomsky does very little interpreting. He simply restates the three mechanisms of language learning briefly discussed by Quine, pointing out that one of the proposed mechanisms can perhaps be dropped, since Quine suggests that it plays only a minor role in one's learning of language. Chomsky then draws the following conclusion:

Assuming that this interpretation of Quine's remarks is correct, we derive support for the conclusion that [Quine] regards a language as a *finite* network of associated sentences, some associated with stimuli, since this is just the structure that would arise from the two postulated mechanisms of language learning with substantive content [emphasis added].⁸²

As we soon learn, the important point about this interpretation is that it openly conflicts with Quine's views on language. Chomsky writes:

Against this interpretation of Quine's remarks on language we can bring the fact that it is inconsistent with a truism that he of course accepts, namely, that a language is an infinite set of sentences A network derived by the postulated mechanisms must be finite; it can, in fact, contain only the sentences to which a person has been exposed⁸³

⁸¹And this reasonableness stems simply from the recognition that individuals learn the language to which they are exposed, and so have to learn which words stand for what. There is no evidence to suggest that we are born with such knowledge.

⁸²Ibid., "Quine's Empirical Assumptions," p. 57.

⁸³Ibid., p. 57.

The implication of this interpretation is clear. If Quine's view, as interpreted by Chomsky, is correct, then individuals would only be capable of speaking and understanding a finite number of sentences. However, the fact that individuals can speak and understand an enormous number of different sentences, many of which they have never before heard, is taken by Chomsky to show that Quine's account of language is false. Now, of course, it is possible for someone to develop a view which is later shown to have implications that conflict with one's starting assumptions and/or is incapable of accounting for the facts. And this is especially true when the implications of the view are not easily foreseen and when later developments uncover facts which simply did not enter into the original account. The rise and fall of Newtonian mechanics is a good example of this. But such is not the difficulty which Chomsky sees in Quine's purported account of language. Rather, Chomsky simply calls attention to what should be manifestly obvious, namely, that a network of sentences derived by Quine's postulated mechanisms would have to be finite. This is why Chomsky concludes that Quine "*regards* a language as a finite network of associated sentences ... [emphasis added]"; the implication is presumably too obvious for Quine to have missed. However, Chomsky does not see this as a point against *his* interpretation of Quine. Rather, he takes it to show that Quine's view is manifestly false, if not altogether unintelligible. As he later comments: "As far as 'learning of sentences' is concerned, the entire notion seems almost unintelligible."⁴⁴

Quine did not agree with this interpretation of his views. In his "Reply to Chomsky" he unequivocally asserts that Chomsky has not interpreted him correctly. Quine writes:

The more absurd the doctrine attributed to someone, *caeteris paribus*, the less the likelihood that we have well construed his words. ... I wish Chomsky had considered this precept before attributing to me the absurd belief that the sentences in a man's repertoire are finite in number and generally learned as wholes.⁴⁵

Quine then accents the point by adding:

⁴⁴Ibid., p. 64.

⁴⁵Quine, "Reply to Chomsky," p. 304.

[I]n *Word and Object* there are such passages as "the infinite totality of sentences of any given speaker's language" (p.27) which might have been expected to preclude Chomsky's strange attribution He even notices one such passage (p. 71) himself⁶⁶

Quine is saying that Chomsky's interpretation couldn't possibly be correct, precisely *because* it conflicts with his (Quine's) own views.

Chomsky was nonplussed by Quine's reply. In Chapter Three of *Reflections on Language*, Chomsky claims that Quine simply avoids the problem:

Quine's responses to other criticisms and queries that I raised in the same article simply avoid or misrepresent the issues. Thus I pointed out that his characterization of language and language learning, if taken literally, conflicts with truisms that he accepts, e.g., that a language is infinite. In response, Quine simply reiterates what I stated explicitly, namely, that he of course accepts the truism. But this does not deal with the criticism, which is that the position he develops is inconsistent with the truism that he accepts.⁶⁷

In the light of such passages as these, one despairs of making sense of a debate between Quine and Chomsky. At each stage of the disagreement, it becomes clearer that neither is capable of seeing the other's point, there being little, if indeed any common ground between the two. It should be noted however that Quine did make an effort to diagnose the source of (what he views as) Chomsky's misinterpretation. Quine begins by quoting Chomsky:

It ... is clear that when we learn a language we are not "learning sentences" or acquiring a "behavioral repertoire" through training. ... A description of knowledge of language ... as an associative net constructed by conditioned response is in sharp conflict with whatever evidence we have about these matters.⁶⁸

Quine then immediately comments:

This sense of conflict is wrong. It comes of taking 'learning sentences' narrowly to mean 'learning sentences outright as unstructured wholes', and taking 'associative net' and 'conditioned response' to refer narrowly to the

⁶⁶Ibid., p. 305.

⁶⁷Chomsky, *Reflections on Language*, note 30, p. 249.

⁶⁸Chomsky, "Quine's Empirical Assumptions," p. 64.

association of sentences with sentences as unstructured wholes.⁸⁹

Now although I agree with Quine in saying that the sense of conflict is wrong, I think he misses the main source of the problem. The problem isn't so much that Chomsky reads Quine as saying that most sentences are learned individually as unstructured wholes, though Chomsky does read Quine this way; rather, I believe the problem stems from Chomsky's reading too much into such key phrases as "language as a network of sentences," "associative net," and "the complex of dispositions." Chomsky takes these phrases literally to mean a network or complex which is instantiated in the mind/brain of individual speakers. Indeed, this fits perfectly with Chomsky's Humean characterization of Quine as holding that "a person's knowledge of language should be representable as a network of linguistic forms." I believe it is this over-literal reading of Quine which, above all, leads Chomsky to the conclusion that Quine "regards a language as a finite network of associated sentences ..."; for any such network would have to be finite. Similarly, it is this which leads Chomsky to say that Quine's discussion of language learning "is in sharp conflict with whatever evidence we have on these matters," since it is clear that even very young children are capable of speaking and understanding sentences which they have never before heard and, consequently, could not be represented in the "associative net" of which Quine speaks.

It is important to see, however, that Quine did not intend his remarks about "language as a network of sentences" to be taken literally. Rather, Quine's talk of language (or theory) as an associated network of sentences is a *metaphor* intended to be suggestive of the complex interrelationships between utterances keyed directly to immediate experiences and those (especially theoretical scientific statements) more remotely connected with sensory experience. The metaphor made its first conspicuous appearance in the final section of "Two Dogmas." As Quine writes:

The totality of our so-called knowledge or beliefs, from the most casual matters of geography and history to the profoundest laws of atomic physics or even of pure mathematics and logic, is a man-made fabric which

⁸⁹Quine, "Reply to Chomsky," p. 305.

impinges on experience only along the edges.⁹⁰

Quine began putting this metaphor into empirical form two paragraphs later:

For vividness I have been speaking in terms of varying distances from a sensory periphery. Let me try now to clarify this notion without metaphor. Certain statements, though *about* physical objects and not sense experience, seem peculiarly germane to sense experience⁹¹

The metaphor crystallized into shape in *Word and Object*, with the above mentioned "statements" becoming Quine's observation sentences, which form a key part of his discussion of stimulus meanings, ostensive learning of words and phrases, and so on. All of this, however, has nothing to do with providing an account or theory of *language*; rather, it is a part of Quine's naturalistic investigation into our *talk* of physical phenomena as a physical phenomenon.

The next series of quotations makes the emptiness of the dispute between Quine and Chomsky even clearer. Focusing still on Quine's purported definition of language, Chomsky wrote:

Presumably, a complex of dispositions is a structure that can be represented as a set of probabilities for utterances in certain definable 'circumstances' or 'situations'. But it must be recognized that the notion 'probability of a sentence' is an entirely useless one, under any known interpretation of this term. On empirical grounds, the probability of my producing some given sentence of English ... is indistinguishable from the probability of my producing a given sentence of Japanese.⁹²

The point of this paragraph is not immediately obvious. The key is to see that Chomsky is (as above) taking the phrases "complex of dispositions" and "structure" literally to mean a structure, one that is presumably instantiated in the brain. In keeping with Chomsky's Humean characterization, we may say that Chomsky interprets Quine as maintaining that the sentences of a person's repertoire are each instantiated in the brain as a linguistic form, identified and characterized in terms of dispositions to verbal behavior. On this

⁹⁰Quine, "Two Dogmas of Empiricism," p. 42.

⁹¹Ibid., p. 43.

⁹²Chomsky, "Quine's Empirical Assumptions," p. 57.

interpretation, the sentences or linguistic forms of the network must be defined as a probability to respond. But because Chomsky believes that Quine needs to provide a general characterization of the network, he denies that particular circumstances can count in the definition, since the same utterance can occur in different sets of circumstances. Chomsky thus believes that the linguistic forms of the network must be defined in terms of the *absolute* probability of utterance. As he points out, however, the probability of a person's uttering any given sentence is effectively nil, which is just the probability that one will utter a given sentence of Japanese. Thus, Chomsky believes that a dispositional account of one's knowledge of language is inadequate, which leads him to postulate an underlying system of mental states and processes as a better account of the facts.

Quine's response to this criticism is interesting. He neither agrees nor disagrees with Chomsky; rather, he expresses puzzlement over the interpretation. Quine begins his response by quoting Chomsky:

Actually, Quine avoids these problems, in his exposition, by shifting his ground from "totality of speech dispositions" to "stimulus meanings", that is, dispositions to "assent or dissent" in a situation determined by one ... arbitrarily selected experiment.

Quine then asks:

Why does he write "shifting his ground", since "dispositions to 'assent or dissent'" are surely within the "totality of speech dispositions"? I am free to pick, from that totality, whatever dispositions are most favourable to my purpose of distinguishing ostensive meanings. And, this being the case, why does he say "avoids these problems" and not "solves these problems"?⁹³

Quine's emphasis on his "purpose of distinguishing ostensive meanings" is not to be ignored. For it helps to indicate that Quine is thinking in terms of isolating behavioral dispositions as a part of his naturalistic investigation of the language of science. Quine seems not to recognize that Chomsky's interpretation derives from what appears to be an over-literal reading of his remarks on the early mechanisms of language learning.

Chomsky's attack on Quine's discussion of language as a complex of present

⁹³Quine, "Reply to Chomsky," pp. 307-8.

dispositions to verbal behavior, struck a responsive chord with Quine, enough so that he was to comment twice more on Chomsky's criticism. We look first to his response in "Methodological Reflections on Current Linguistic Theory." Quine writes:

I am puzzled by how quickly [Chomsky] turns his back on the crucial phrase "in certain definable 'circumstances'." Solubility in water would be a pretty idle disposition if defined in terms of the absolute probability of dissolving, without reference to the circumstance of being in water. ... Verbal dispositions would be pretty idle if defined in terms of the absolute probability of utterance out of the blue. I, among others, have talked mainly of verbal dispositions in a very specific circumstance: a questionnaire circumstance, the circumstance of being offered a sentence for assent or dissent or indecision or bizarreness reaction.⁹⁴

Chomsky responded to this point in *Reflections on Language*, emphasizing that Quine, both in his "Reply" and in "Methodological Reflections," failed to note that he does in fact address the above "crucial phrase."⁹⁵ However, Chomsky continues to interpret Quine as though he was offering a definition of language, and is thus led to comment that Quine's suggestion actually "makes matters worse." Chomsky writes: "Plainly, a language is not a complex of dispositions to respond under the particular set of *Gedakexperiments* that Quine considers."⁹⁶ As I have tried to indicate, however, Quine does not concern himself with providing an account of what a language is.

Quine's third response to Chomsky appeared in *The Roots of Reference*. This time Quine speculates on the source of Chomsky's misgivings:

Let us not forget that dispositions have their conditions. The probability that a given lump of salt will dissolve if immersed in water is high. Chomsky's worry may have been a more specific difficulty: that of setting conditions for the triggering of verbal dispositions. This is an important problem, and happily it has an easy solution - a solution, indeed, that was

⁹⁴Quine, "Methodological Reflections on Current Linguistic Theory," in *Semantics of Natural Languages*, eds. G. Harmon and D. Davidson (Dordrecht-Holland: D. Reidel Publishing Co., 1972), pp. 444-5.

⁹⁵Chomsky writes: "Introduction of the notion of 'probability relative to a situation' changes nothing, at least if 'situations' are characterized on any known objective grounds." Chomsky, "Quine's Empirical Assumptions," p. 57.

⁹⁶Chomsky, *Reflections on Language*, p. 191.

prominent in the book that Chomsky was commenting on. It is the procedure of query and assent⁹⁷

Here, Quine conjectures that Chomsky's worry may stem from a concern over how to identify behavioral dispositions. But clearly this misses the mark from Chomsky's viewpoint. For it is a characterization of the network which Chomsky believes that Quine needs to provide. Chomsky writes:

No way of assigning probabilities to utterances on empirical grounds relative to situations seems to offer any hope of salvaging Quine's characterization of language as a complex of dispositions to verbal behavior. ... Taking his proposal literally, we must conclude that a language is a complex of dispositions to assent or dissent under the conditions of the query-and-assent procedure. But this is plainly not the case.⁹⁸

And yet, Chomsky says:

I see no other interpretation of [Quine's] claim that the problems of characterizing utterance probability in situations and thus salvaging his definition of "language" as a complex of dispositions to respond (recall that this is what is at issue) "has an easy solution" in terms of his procedure of query and assent.⁹⁹

Two points need to be made. First, Quine clearly does not appreciate the problem which Chomsky is saying his view entails. Chomsky would no doubt agree. But then, and this is the second point, Chomsky is convinced that Quine's remarks on language have to be interpreted in the above way. The discussion between Quine and Chomsky has clearly broken down. Our challenge is to try and determine what could be driving this radical divergence in Quine and Chomsky's approach to the issues.

In this section, I have tried to show that Chomsky misreads Quine by interpreting Quine's remarks on language in much too literal a fashion. I have suggested that Chomsky's misreading stems, in part, from his failure to interpret Quine within the context of Quine's naturalistic investigation of language. It is, of course, true that Quine

⁹⁷Quine, *The Roots of Reference*, (La Salle, Ill.: Open Court, 1973), p. 15.

⁹⁸Chomsky, *Reflections on Language*, pp. 192-3.

⁹⁹Ibid., p. 193.

spends little time responding to Chomsky's criticisms, and tends rather to ignore them. If, however, Chomsky has, as I suggest, interpreted Quine in ways which lead him to misconstrue Quine's project, it would be premature to interpret Quine's dismissals of Chomsky as meaning that Quine's views are rooted in a dogmatic prejudice or ideology. In the final section of this chapter, I want to begin a discussion which is designed to help us understand (a) why it is that Quine does not address Chomsky's questions and concerns, and (b) why Chomsky interprets Quine in ways which Quine does not understand. I will try to make two points. First, that Chomsky's interpretation and critique of Quine is being driven by an *a priori* commitment to the view that our ability to use and to understand language must be made sense of in terms of an underlying system of mental states and processes. And, second, that Quine does not respond to Chomsky's questions and concerns because he does not recognize Chomsky's central problem, namely, the problem of providing an account or characterization of one's knowledge of language.

(iii)

Let us begin by briefly considering Chomsky's critique of behaviorism. In November, 1987, Chomsky gave an interview in which he provided a clear and succinct account of the nature of his critique of behaviorist psychology. Chomsky begins the interview by calling attention to the three central questions which have shaped his work.

How is knowledge of language to be characterized?
 How is knowledge of language acquired?
 How is knowledge of language put to use?

According to Chomsky, prior to the cognitive revolution these questions were answered in behaviorist psychological terms such as "habits," "skills," "conditioning," "association," and so on. To Chomsky, however, "[i]t seemed ... clear that these approaches were entirely inadequate, in fact, that the entire conception was completely wrong."¹⁰⁰ What struck Chomsky in the 1950's, and what continues to strike him to this very day, is that

¹⁰⁰Chomsky, *Language and Politics*, C.P. Otero ed. (New York: Black Rose Books, 1988), p. 497.

use of language is '*creative*,' in the sense that it constantly involves the *production* and *interpretation* of new forms, new in the experience of the language user or even in the history of language [emphases added].¹⁰¹

This insight is of deep significance for Chomsky; it sits at the heart of his critique of both Quine and the behaviorists.

Chomsky continues his discussion by comparing and contrasting the meanings of seven different sentences. His aim is to show how slight variations can drastically alter the meanings of clearly related elements between the sentences, and hence of the sentences themselves. For example, compare the sentences (a) we expect to like each other, and (b) John wonders who [we expect to like each other]. In the first example, the reciprocal phrase "each other" refers to "we." In the second example, however, the reciprocal phrase refers to the more remote "who." For Chomsky, examples such as this reveal that "[w]e understand [sentences] in a precise and explicit way, even though they may be novel in our experience, and unlike others that we have heard"¹⁰² The point is this: "Plainly, we cannot be carrying out these accomplishments by 'habit,' and there is no mere 'skill' involved."¹⁰³ And what does this show? -- "that the *entire* framework of behaviorist psychology is simply *irrelevant* to normal linguistic behavior [emphases added]."¹⁰⁴ Now, here one might be inclined to object that this is, after all, only an interview. Surely, it will be said, the critique of behaviorism is undoubtedly more complex. On the contrary, the critique is said to be simpler -- "though to demonstrate this point, much simpler observations suffice, as they suffice to demonstrate *the irrelevance of behaviorist doctrine to behavior* generally...."¹⁰⁵ And Chomsky adds: "Attention to the facts shows that the answers to the three questions posed must be entirely different

¹⁰¹Ibid., p. 497.

¹⁰²Ibid., p. 98.

¹⁰³Ibid., p. 98.

¹⁰⁴Ibid., p. 499.

¹⁰⁵Ibid., p. 499.

from those that were conventional at the time."

I am willing to concede that Chomsky's discussion of behaviorism in the 50's and 60's was much more detailed. I simply want to emphasize that there is an important similarity between Chomsky's discussions both of Quine and of the behaviorists. In both cases, the critique rests upon showing that the view in question fails to deal with an obvious fact; in neither case does Chomsky refute his opposition through detailed experiment or investigation. Rather, the refutation rests primarily upon showing that Quine and the behaviorists are unable to account for the fact that individuals are, in principle, capable of speaking and understanding an enormous number of sentences, many of which they have never before experienced.

We can, I think, agree that it is not immediately obvious to everyone why the creative aspect of language use should be of such overriding importance to the philosophy of language. Clearly, Quine does not think that recognition of the fact that individuals can in principle speak and understand an infinite number of different sentences should lead one to adopt a mentalistic view of language. Chomsky, by contrast, does think that the best explanation of our linguistic abilities will be an essentially mentalistic explanation, and it is recognition of the creative aspect of language use which, above all, convinces Chomsky of this. Let us then try to get clearer on this difference between Quine and Chomsky.

Recall first our earlier discussion from section (iv) of Chapter One in which we reflected on Chomsky's efforts to state the point and purpose of his enterprise. We saw that Chomsky relies upon such key phrases as "language as a system," "the system of knowledge attained," and "an intricate structure of rules and guiding principles." However, at an early stage of inquiry such remarks are questionable, since they appear to embody what is later cast as the central hypothesis (or explanatory framework), namely, that the mind/brain is a mechanistic system, complete with syntactic structures, mental representations, and guiding rules and principles. That is to say, if one *begins* by speaking of language as a system, of systems of belief, of cognitive faculties, of intricate structures, and so on, then an air of suspicion is cast over the ensuing claim that language use and our mental abilities are to be explained by an underlying system of mental states

and processes — for the explanation seems already to have been provided, at least in outline, in the very statement of the issues that require explaining: problem and explanation thus appear to be one and the same.

To see that the above quoted remarks from Chomsky are not atypical, let us look at several more instances where Chomsky's mentalist hypotheses appear to be built into the discussion. Consider Chomsky's first major work, *Syntactic Structures*. In the introduction, Chomsky writes:

Syntax is the study of the principles and processes by which sentences are constructed in particular languages. Syntactic investigation of a given language has as its goal the construction of a grammar that can be viewed as a device of some sort for producing the sentences of the language under analysis. ... One function of this theory is to provide a general method for selecting a grammar for each language, given a corpus of sentences of this language.¹⁰⁶

Here Chomsky does not mention the mind explicitly, though it is readily apparent that Chomsky's major conclusions are embodied in this passage, first published in 1957. For example, the "principles and processes by which sentences are constructed" will later be cast as mental rules, representations, and processes. Similarly, the "device for producing sentences" will later become the generative grammar which strings together mental representations into thoughts and ideas. Likewise, Chomsky's mention of a "general method for selecting a grammar" clearly embodies his later conclusion that children are born with a *universal grammar* that is "hard wired" into the brain, thereby enabling a child to construct a grammar of the language to which he or she is exposed.

Two years later, in Chomsky's influential review of Skinner's *Verbal Behavior*, the same mentalistic assumptions appear in a somewhat more conspicuous form. Chomsky writes:

One would naturally expect that prediction of the behavior of a complex organism (or machine) would require, in addition to information about external stimulation, knowledge of the internal structure of the organism, the ways in which it *processes input information* and *organizes* its own

¹⁰⁶Chomsky, *Syntactic Structures*, (Mouton & Co.: The Hague, 1965), p. 11.

behavior [emphases added].¹⁰⁷

It should be noted that the meanings of the two key phrases "processing input information" and "organizing one's behavior" are far from clear; they sound like technical terminology. The phrases do, however, seem to acquire a sense if one already has in place a picture of the mind or brain as an information processing system. For then the key terms, "process" and "organize," will be taken to refer in some way to the mental apparatus. Notice as well how Chomsky continues:

Insofar as independent neurophysiological evidence is not available, it is obvious that inferences concerning the structure of the organism are based on observation of behavior and outside events.¹⁰⁸

The first point I want to note is that there is nothing immediately obvious about Chomsky's claim. For, in the absence of any independent neurophysiological evidence, one cannot be sure that there are neural (or grammatical) structures and processes to reveal, or just how detailed or sophisticated they might be. Perhaps we will be able to speak only in generalities about the brain, if it turns out that the specific neural details vary too much from person to person.¹⁰⁹ Only if one already has in place a picture of

¹⁰⁷Chomsky, "Review of Skinner's *Verbal Behavior*," in *Language*, Vol. 35, No. 1, 1959, p. 27. I would like to add that Chomsky is certainly correct: one would normally expect that the prediction of an organism's behavior would depend upon knowledge of its internal constitution. The primary hypothesis of *Verbal Behavior* is that this assumption is incorrect and that external factors play a much more important part than one would naturally expect. And, as Kenneth MacCorquodale has pointed out: "The fact is simply that we do not yet know if verbal behavior is within the domain of Skinner's system and whether the technical terms stimulus, response, reinforcement are literally applicable to verbal behavior and correctly parse it into its functional parts of speech." MacCorquodale, "On Chomsky's Review of Skinner's *Verbal Behavior*," in *The Journal of the Experimental Analysis of Behavior*, Vol. 13, No. 1, 1970, p. 84. I would like to thank Paul Forster for calling my attention to this article.

¹⁰⁸Ibid., p. 27.

¹⁰⁹I do not mean to suggest, however, that one cannot make any inferences about the brain on the basis of observable behavior. Nervous ticks and shakes, or other visible impairments are often taken as a sign of some kind of neural abnormality. And, of course, as our knowledge of neural anatomy increases, the correlations between observable behavior (or bodily movements) and the specific neural details, grow ever more reliable

the mind/brain as a complicated system of states and processes, is it obvious that we can make sophisticated and detailed inferences about neural anatomy on the basis of observable behavior and outside events.

Now perhaps one will object that the problems to which I point in Chomsky's efforts to explain his version of linguistics and psychology are, in fact, no different than the problems which the average chemist or biologist would face in explaining the point and purpose of their respective disciplines, since they too would have to presuppose all manner of theoretical and ontological commitments. There is a difference however. One can teach biology and chemistry, and indeed it is taught, without presupposing anything about genetic theory or atomic structure, for example. Rather, the student learns the history of the development of biology and chemistry, complete with all of the hypotheses, failed experiments, new discoveries, theoretical developments, and so on. What this history reveals is that in the early stages of chemistry and biology, there no more had to be atoms or genes than there had to be subatomic particles or DNA molecules. Of course, it goes without saying that modern biologists and chemists presuppose such things when they pose their questions and conduct their investigations. When reading Chomsky, however, one seems always to begin by talking about systems, devices, processes, and structures. And, as noted above, these phrases seem only to make sense if one has already hypothesized that there is a system of states and processes which underlies our ability to speak and understand language. The case is not unlike that of the creation scientist who begins by speaking of divine intervention and later hypothesizes (or perhaps develops an explanatory framework complete with) God and angels. For then statements to the effect that *obviously* angels exist, or that there *must* be such divine beings, will have a distinctly metaphysical ring to them, since the creationist's initial construal of the problems guarantees their existence *a priori*. I believe the above quoted remarks from Chomsky

and useful. One does not want to take this line of reasoning too far, however. Our knowledge of neural anatomy and functioning has increased greatly over the last forty years. But by all accounts, we still have only a superficial understanding of the brain, though theories of grammar and syntax have grown ever more sophisticated and complicated.

function in a similar fashion. For, given his pre-theoretical statement of the issues he seeks to resolve, there *must* be something like syntactic structures, mental representations, and linguistic rules.

I have been trying to show that Chomsky's mentalistic hypotheses are already contained in his pre-theoretical talk of language as a system, systems of belief, the composition and production of utterances, and so on. Chomsky, however, will resist the suggestion that there is a metaphysical "must" guiding his work. This is understandable, since Chomsky considers himself a naturalist and therewith an opponent of all forms of *a priori* science and philosophy. It is crucial, then, that we understand why Chomsky's assurance to the effect that there must be mental states and processes is, for Chomsky, an epistemological, not a metaphysical assurance. The key to appreciating Chomsky's point of view lies, I think, in our seeing that Chomsky believes that the true opposition to his mentalistic views, namely, the behaviorism he attributes to Quine and Skinner, is manifestly false.

In order to help us appreciate both Chomsky's point of view and why Quine does not acknowledge it, let us reflect for a moment on the central problem which Chomsky seeks to resolve. As we noted above, three central questions have shaped Chomsky's work:

- How is knowledge of language to be characterized?
- How is knowledge of language acquired?
- How is knowledge of language put to use?

The significant thing about these questions is that they presuppose a distinction between language use or actual speech behavior on the one hand, and the knowledge which is presumed to underlie our ability both to produce and to interpret (or understand) such behavior, on the other hand. This distinction becomes the distinction between *competence* and *performance*. The significance of this distinction is that it has the effect of turning our use and understanding of language into something mysterious and in need of an explanation. That is to say, if one accepts that there is a distinction between competence and performance, then one cannot help but think that there is an important gap between one's actual verbal behavior, and the knowledge which makes such verbal behavior

possible. The theories of grammar and syntax being developed in linguistics, in conjunction with philosophical theories of meaning and psychological models of our cognitive faculties are, in effect, an attempt to close this gap. The assumption lying behind this work is that in the absence of a successful theory of language and mind, our actual behaviors and practices will remain deeply mysterious and in need of an explanation.

Let us then consider the role of the competence-performance distinction in Chomsky's interpretation and critique of Quine. It is important to see that Chomsky reads Quine as if he accepts the distinction between language use and understanding, which, from Chomsky's point of view, is so important. Recall the following passage from "Quine's Empirical Assumptions":

[S]urely it is clear that when we learn a language we are not "learning sentences" or acquiring a "behavioral repertoire" through training. Rather, we somehow develop certain principles ... that determine the form and meaning of indefinitely many sentences. *A description of knowledge of language* ... as an associative net constructed by conditioned response is in sharp conflict with whatever evidence we have about these matters [emphasis added].¹¹⁰

In this passage, the competence-performance distinction manifests itself as a distinction between determinations of sentence meanings, and the principles which make the determinations possible. As well, the passage reveals that Chomsky is interpreting Quine's characterization of "language as an associative net" as an attempt at providing a description of one's so-called knowledge of language. Presumably, then, Chomsky interprets Quine's remarks on language in terms of the three central questions pointed out above. Indeed, it is possible to give what appears to be a Quinean response to Chomsky's three central questions. To begin with, knowledge of language is to be characterized in terms of sensory stimulations, dispositions to respond, and an "associative net" or "complex of dispositions." One's knowledge of language is thought to be acquired solely through one's exposure to the speech community. An account of one's use of this linguistic knowledge then goes as follows. One's ability to utter a sentence on a given

¹¹⁰Chomsky, "Quine's Empirical Assumptions," p. 64.

occasion is interpreted by Chomsky to be a matter of "stringing together a sequence of responses under control of outside stimulation and intraverbal association." While one's ability to understand and to respond appropriately to an utterance is explained by one's prior exposure to the utterance and by one's making intraverbal associations between the utterance in question and other sentences of the "associative net."

Against this, Quine's purported response to the problem of providing an account of one's knowledge of language, Chomsky cites the fact that individuals are capable of speaking and understanding an infinite number of sentences, many of which we have never before experienced. From Chomsky's point of view, Quine's perceived characterization of knowledge of language as an associative net is thus manifestly false, since a "network derived by [Quine's] postulated mechanisms must be finite." As we saw above in our discussion of Chomsky's criticisms of behaviorism, the primary insight which motivates Chomsky's work is that "use of language is 'creative,' in the sense that it constantly involves the *production* and *interpretation* of new forms" It is this single fact, above all else, which reveals to Chomsky that Quine's remarks on language are the product of a misguided approach to the study of linguistic behavior. Chomsky thus develops an alternative framework within which to explain our ability to use and understand language. Simply stated, the framework is this: the building blocks of sentences -- to a first approximation, words -- are mentally represented in the brain, along with a system of grammatical rules. One's use of this linguistic knowledge thus becomes a matter of having sentences composed and interpreted by the represented grammar, with other cognitive systems entering into the account in ways which are not yet easy to characterize.

Given that this broad outline of Chomsky's view is correct, it is interesting to see how it allows Chomsky to respond to many of the critical points which I have been trying to bring to light throughout this thesis. That is to say, one can imagine Chomsky acknowledging, for example, that Quine's remarks on language have been misunderstood in different ways, that many linguists and psychologists do not understand the significance of Quine's attack on analyticity, and that many of the concepts and distinctions which help to define cognitive science are vague and as yet inadequately characterized.

However, in spite of these problems, Chomsky will no doubt point out that Quine has no *better* account of one's knowledge of language; and, moreover, that in the light of the creative aspect of language use, Quine's own proposals are inadequate. Thus, Chomsky is able to downplay the importance of the critical points which are brought to bear against his doctrines by pointing out that there simply are no better explanations than the ones he offers and proposes. Moreover, Chomsky's response makes those who remain critical of contemporary mentalism appear as if their objections stem from an unjustified prejudice against mentalistic theories.

But how do things look to Quine? In particular, what is this problem regarding one's so-called knowledge of language to which Quine is said to have no better account? In section (iv) of Chapter One, I suggested that it was crucial to an understanding of Quine and the indeterminacy thesis that we begin viewing language use and understanding *behaviorally*. I want now to pursue this suggestion. What I hope to show is that the important distinction which Chomsky sees between language use and understanding, between competence and performance, does not arise for Quine, since Quine *begins* by reflecting on the behavioral practices which go together with our talk of what it means to understand words and sentences. As the distinction between competence and performance goes, so goes the problem to which Chomsky seeks an explanation. I do not mean to suggest, however, that Quine merely ignores Chomsky's questions. Rather, I want to suggest that from Quine's behavioral point of view, such questions as "How can one understand a sentence?" and "How can one's knowledge of language be characterized?" make no sense. The felt need for an explanation or account of one's knowledge of language is thus seen to stem, not from our ignorance about how the world works, but rather from our not understanding the very problem which Chomsky seeks to resolve. In short, I am not saying that Quine ignores Chomsky's central questions; I am saying, rather, that Quine does not understand them.

To give an idea of what Quine's behavioral approach to the study of language entails, let us consider the section in Quine's *Pursuit of Truth* entitled, "Lexicography." Quine begins his discussion with the following observation:

To question the old notion of meanings of words and sentences is not to

repudiate semantics. Much good work has been done regarding the manner, circumstances, and development of the use of words. Lexicography is its conspicuous manifestation.¹¹¹

The first sentence of this passage serves to indicate that Quine does not view the indeterminacy thesis as having demonstrated that semantics -- the study of the meanings of expressions -- is not a scientific discipline. The science of semantics thrives rather in the work of the lexicographer, whose work is most commonly found in the dictionary. Assuming, then, that the business of a dictionary is to explain the meanings of words, and given that the lexicographer does not require a philosophical theory with which to explain a word's meaning, Quine entreats us to "consider ... what the business of dictionaries really is." He begins by identifying three typical ways in which the lexicographer sets out to explain the meaning of an expression:

Sometimes the dictionary explains a word by supplying another expression that can replace it *salva veritate* Sometimes, instead, a brief selection of information is set down regarding the object or objects to which the word refers. ... Often, moreover, a dictionary entry neither paraphrases the word nor describes its objects, but describes, rather, the use of the word in sentences.¹¹²

The important thing to see about these three kinds of explanation is that they represent the behavioral practices with which we commonly do explain the meanings of words. For example, often when we explain the meaning of a word to someone, we do so by citing a sentence containing the expression to be explained, and then substitute the expression with a closely related one which we assume our listener is familiar with. We then typically point out why one word is to be preferred over the other, indicating, for example, that there are slightly different connotations between the words, or perhaps that one "sounds better" than the other in a given context of discussion, and so on. When we are concerned with referential expressions, however, we typically proceed by pointing out the referent explicitly, circumstances permitting, otherwise we describe the thing in question, perhaps explain its function, and so on. And in many cases we simply provide

¹¹¹Quine, *The Pursuit of Truth*, p. 56.

¹¹²*Ibid.*, pp. 56-7.

sample sentences which contain the expression to be explained, often accompanied with some remarks on the sense of the sentence as a whole. There is no standard way to proceed, and sometimes we fail in our efforts, occasionally even questioning whether we understand the meaning of the expression we initially set out to explain. And when our efforts do fail, or when the meaning of an expression is in dispute, or when there is no one available to explain the meaning of an expression for us, we typically resort to the lexicographer's dictionary as the best source of the community-wide standards of accepted usage.

In all of this explanation of meaning, however, there is no mention of the cognitive equivalence of sentences, nor of some overriding notion of synonymy, not even of meanings themselves. These philosophical notions drop from the picture once we shift our focus toward the behavioral practices which characterize what the phrase "explanation of meaning" means for us. Quine spells out in the following passage the significance of this shift in focus toward the behavioral practices associated with explanations of meaning:

When from semantics as pursued by philosophers we move to lexicography, we shift our focus from likeness of meaning to knowledge of meaning, so to speak; from synonymy of expressions, anyway, to the understanding of expressions. The lexicographer's job is to inculcate understanding of expressions, that is, to teach how to use them. ... Nothing, apparently, could be more remote than meanings from the lexicographer's concern. Why should they be less remote from ours?¹¹³

We see a shift, then, from talking about the meanings of expressions to talking about the understanding of expressions, with the lexicographer's job being to inculcate this understanding. One may easily be misled by this last sentence, however. For there is an inclination to ask: In what, then, does this understanding consist? Notice, however, that this question immediately creates the appearance of a gap or distinction between the behavioral practices associated with explanations of meaning, and the meaning or understanding itself. And so a theory will then appear necessary in order to close the perceived gap, lest meaning and understanding, and so our actual practices, remain forever a mystery. For Quine, however, the mystery does not arise, since he does not begin with

¹¹³Ibid., pp. 57-8.

the misleading question -- In what does understanding consist? -- but rather with a behavioral discussion of the actual practices which go hand-in-hand with our talk of understanding and misunderstanding. Quine writes:

In practice we credit someone with understanding a sentence if we are not surprised by the circumstances of his uttering it or by his reaction to hearing it We suspect that he does not understand it if the event is drastically at variance with those conditions. Still no boundary is evident, no general criterion for deciding whether he actually misunderstands the sentence or merely holds some unusual theory regarding its subject matter.¹¹⁴

Quine's emphasis on there being no evident boundary of understanding or misunderstanding is significant: it is intended to suggest that there is no room in the discussion for talk of one's being in a state of understanding, i.e. that talk of a (mental) state of understanding does not fit with the behavioral facts of understanding. To help us appreciate the inappropriateness of introducing mental states and processes into a discussion about the understanding of expressions, let us consider a single example of how we normally do credit someone with having understood or misunderstood a sentence. Consider the case of someone's telling a joke, say a one-liner, to another. How do we know whether the sentence (the joke) has been understood? Laughter on the part of the listener is a good criterion, and the more laughter the better. But one need not laugh, especially if the joke is offensive, in which case a look of indignation or a verbal rebuke would be good evidence of understanding. Or perhaps one will simply groan, remarking on how predictable the joke's ending was. Clearly, there is no single criterion of understanding; for, the behavioral responses, verbal and otherwise, will differ from person to person, and by varying degrees. Moreover, all of these criteria of understanding are compatible with someone's having misunderstood the sentence, as witness the person who says the joke is funny, only to reveal when explaining the joke that in fact they misunderstood it. What then of attributions of misunderstanding? Again, there are many different criteria. For example, one may simply fail to laugh. Another may gaze at the joke-teller with a look of astonished bewilderment. While someone else may simply say,

¹¹⁴Ibid., p. 58.

"I don't get it." Notice, however, that even this last example may be compatible with someone's having understood the sentence in question. For instance, as the joke is being explained, one might suddenly realize that they did understand it after all, but then claim that the joke wasn't funny. -- But then is this a case of understanding or misunderstanding? For perhaps the joke-teller will claim that if one understood the joke then one would have laughed, since the joke *is* funny. The important point to see is this: attributions of understanding and misunderstanding depend not only upon the listener's reactions, but also upon such things as our *expectations* of how one should react, upon the *explanations* we give for particular reactions, and upon our *interpretations* of the sentence's meaning.

The significance of this kind of behavioral analysis lies in its showing how little the introduction of the notion of a state of understanding, or the understanding itself, or the mental process accompaniment upon understanding, would illuminate the behavioral facts connected with attributions of understanding and misunderstanding. Here one might agree that the postulated states and processes of Chomsky's theories do not illuminate what we do -- i.e., do not illuminate how we speak about our behavioral practices -- but rather that the states and processes provide a causal account of an individual's behavior. But just what is the notion of "cause" which is operative in this objection? Clearly, the imagined states and processes will not explain the cause of our ascriptions of understanding and misunderstanding, since (a) we have no such knowledge of particular states and processes, and (b) we make our judgments on the basis of such things as our expectations and interpretations, and above all upon a person's reactions. Presumably, then, the state of understanding is to function as the cause of the behavioral manifestations of understanding. But recall (a) that these behavioral manifestations -- the listener's reactions -- were extremely diverse, including such things as laughter, groans, particular facial expressions, verbal responses, etc., and (b) that these reactions were all compatible with the statement's having been understood or misunderstood, depending upon the different stories we are prepared to tell about what counts as understanding in a given case. But then how does a particular state or process fit into this picture? In particular, what is the imagined causal state a cause of? Indeed, if we were to characterize the data

in a more austere form, say, in terms of bodily movements, we would be confronted with such a diverse array of particular phenomena that there would be little, if indeed any, reason to suspect that some underlying state or process is the cause of the phenomena in question.¹¹⁵

As I have suggested, the urge to say that there must be a system of states and processes which underlies our ability to speak and understand sentences stems from the very nature of the questions which Chomsky asks. To help appreciate the difference between Quine and Chomsky, then, consider that Chomsky *begins* by asking such questions as "How does one understand a sentence?" and "How is one's knowledge of language to be characterized?" By divorcing such phrases as "knowledge" and "understanding" from the behavioral contexts which give these expressions their sense, the above questions turn knowledge and understanding into something mysterious and thus in need of an explanation. As we saw, Chomsky reads Quine's remarks on language as a response to the apparent problem of characterizing one's knowledge of language. On account of the creative aspect of language use, however, Quine's purported characterization is thought to be inadequate. Chomsky's mentalistic theories thus emerge as a more plausible alternative. I have tried to indicate, however, that from Quine's viewpoint the problem which Chomsky sees does not arise; for Quine begins by viewing language use, the understanding of language, and knowledge of the meaning of words and expressions, behaviorally. To Quine, Chomsky's talk of understanding and meaning in terms of underlying mental states and processes, serves only to misrepresent the behavioral facts of meaning and understanding.

In recent pages I have been speaking of Quine's behavioral analysis of verbal behavior, but not of Quine's behaviorism. I have avoided this latter phrasing, for I believe it creates a misleading picture of the relationship between Quine and Chomsky. To begin with, talk of Quine's behaviorism suggests that Quine is presenting an

¹¹⁵In this paragraph I am following a discussion by Warren Goldfarb in his "Wittgenstein and Understanding," *Midwest Studies in Philosophy*, Vol. XVII, 1992, pp. 109-22, esp. pp. 115-8.

alternative to Chomsky's mentalistic theories. Indeed, this is precisely how Chomsky interprets Quine's remarks on verbal behavior. However, this reading of Quine misses the point of focusing on Quine's behavioral discussions of meaning and understanding, namely, to see that Chomsky's mentalistic theories *and* the perceived Quinean alternative to Chomsky canvassed above, are *both* directed at questions which never arise for Quine. Moreover, referring to Quine as a behaviorist can create the unnecessary impression that Quine's behavioral analyses are somehow nebulous or obscure, since Quine never makes clear what kind of behaviorist he is. In particular, it seems never to be clear whether Quine is a methodological, a logical, or an eliminative behaviorist, or perhaps some combination of the three. However, I believe the unclarity stems not from Quine, but rather from our inclination to interpret Quine's views from within the traditional categories. As we reflected in section (i) of this chapter, one cannot easily classify any of Quine's "isms" or "ologies," for Quine has been engaged, perhaps since his PhD dissertation, in a systematic re-casting of the traditional philosophical vocabulary, and thus of the traditional problems themselves. Quine's "behaviorism" is, I want to suggest, no exception to the rule. Indeed, I pointed out in section (ii) that Quine's interest in the mechanism of stimulus and response, when interpreted within the framework of his naturalistic investigation of language, was not problematic, not even from Chomsky's viewpoint.

Appreciating Quine's behavioral approach to the study of meaning and understanding is crucial to an understanding of the indeterminacy thesis. Quine's emphasis on the study of behavior stems simply from the recognition that it is through our interaction with members of the speech community that we learn what words mean, how to use them, in what contexts, and so on. As he writes in *The Pursuit of Truth*:

Each of us learns his language by observing other people's verbal behavior and having his own faltering verbal behavior observed and reinforced or corrected by others. We depend strictly on overt behavior in observable situations. As long as our command of our language fits all external checkpoints, where our utterance or our reaction to someone's utterance can be appraised in the light of some shared situation, so long all is well. Our mental life between checkpoints is indifferent to our rating as a master of the language. There is nothing in linguistic meaning beyond what is to

be gleaned from overt behavior in observable circumstances.¹¹⁶

Quine is not saying, however, that the facts of meaning (or understanding) are *just* behavior.¹¹⁷ Quine is saying, rather, that the facts of meaning (and understanding) -- i.e., the facts connected both with our explanations of meaning and our attributions of understanding -- will have to be construed in terms of overt behavior in observable circumstances, because it is in such circumstances that we learn the uses of linguistic expressions. Underlying mental states and processes play no role whatsoever in our explanations of meaning; nor do they play any role in our attributions of understanding and misunderstanding.

The temptation to read Quine as saying that the facts of meaning and understanding are just behavior, arises when one divorces such phrases as "meaning" and "understanding" from the behavioral practices and observable contexts in which such phrases receive their sense. Meaning and understanding thus become something mysterious and in need of a philosophical account or explanation, with Quine's remarks on language being interpreted as an attempt to say, in behavioristic terms, what meaning and understanding *are*. A more traditional response to the mystery of meaning has been to regard the meaning of a sentence as the proposition which the sentence is said to "express." In recent years, talk of propositions has been complemented, and in some cases replaced, with talk of mental representations (the so-called building blocks of thoughts and ideas, also said to be expressed by language). In both cases, however, the essential idea is the same: linguistic expressions -- whether spoken, written, or signed -- are assumed to be meaningful, to have or to get their meaning, because of their relationship with, or connection to, that which is thought to underlie or to transcend the physical instantiations

¹¹⁶Quine, *The Pursuit of Truth*, pp. 37-8.

¹¹⁷In "Putnam, Quine -- and the Facts," p. 303, Dreben writes: "Quine's own glosses on 'the very facts about meaning' ... are not to be ignored. They make clear that [Quine's] assertion 'the very facts about meaning ... must be construed in terms of behavior' is *not* to be construed as claiming that the facts of meaning are *just* behavior, verbal or otherwise. Rather ... behavior is *evidence*, on the basis of which language is learned, acquired."

of language. The aim of the indeterminacy thesis is to expose this idea as untenable.

One area in which the notion of a "sentence meaning" might reasonably have been expected to play a part, is the enterprise of translation. In his discussion of radical translation, Quine pointed out that the linguist's analytical hypotheses "exceed anything implicit in any native's dispositions to speech behavior," and so "extend the working limits of translation beyond where independent evidence can exist."¹¹⁸ Quine thus maintains that it is possible to imagine that two competing translation manuals, though both correct from the point of view of Quine's theory of translational meaning, would nevertheless issue in incompatible translations of equivalent native sentences -- translations which, as we might say, differ in meaning.

Quine made it clear in his reply to Chomsky that he aimed to challenge the "persistence of old notions of meaning, idea, proposition." To challenge the uncritical acceptance of deeply held convictions of ours is not, however, to refute a particular discipline or research project; rather, it is to challenge the fitness of these convictions for our scientific inquiries. In the final analysis, we may meaningfully say that Quine does not oppose Chomsky because of the indeterminacy thesis; for the thesis is a product of Quine's behavioristic and indeed naturalistic orientation to the study of language -- an orientation which Chomsky does not share.

¹¹⁸Quine, *Word and Object*, p. 70.

Conclusion

My central thesis is that there is no debate between Quine and Chomsky. Let me recount the main reasons for accepting this conclusion. First: Chomsky has repeatedly claimed that in order for Quine to show that the indeterminacy thesis is true, Quine will have to demonstrate that mentalistic theories of language and mind are not legitimate scientific theories. As we saw in section (ii) of Chapter One, however, Quine does not respond to this demand; rather, he provides explications of his earlier arguments and conclusions. Second: It was argued in section (iii) of the first chapter that the standard interpretation is undermined by Quine's attack on analyticity. In particular, I tried to show that (a) to read Quine as having tried to prove or to demonstrate that Chomsky's version of linguistics isn't one of the natural sciences, and (b) to object against Quine that he provides no argument to show that Chomsky's theories are unscientific, is to implicitly embrace Carnap's conception of philosophy, which Quine thinks is incoherent. Third: It was argued that the standard interpretation of the disagreement between Quine and Chomsky as a dispute over their competing accounts of language, is misguided. Two main points were brought to bear against this reading of the dispute: (a) Chomsky misrepresents Quine's remarks on language by failing to interpret them within the context of Quine's naturalistic investigation of our talk of physical phenomena as a physical phenomenon; (b) it was argued that (a) was the result of an over-literal reading on Chomsky's part of Quine's discussion of "language as a network of sentences" and "language as a complex of dispositions." As a consequence of this misreading of Quine, Chomsky's objections to Quine's purported definition of "language as a network of sentences" are seen not to be directed at Quine as such, but rather against the view which Chomsky attributes to Quine, but which Quine appears never to have held. Four: It was argued that a major cause of Chomsky's misrepresentation of Quine stemmed from Chomsky's deep commitment to the mentalist paradigm. I tried to show that Chomsky's mentalistic hypotheses are embedded *a priori* within Chomsky's pre-theoretical talk of the problems he is concerned with. Five: It was argued that one of the key differences between Quine and Chomsky stems from the way they view our use and understanding of language. Chomsky begins by talking of language in a way which presupposes the

competence-performance distinction. Quine, by contrast, begins with a behavioral interpretation of language use and understanding and so does not acknowledge the competence-performance distinction. From Quine's point of view, Chomsky's talk of meaning and understanding in terms of underlying mental states and processes misrepresents the behavioral facts of meaning and understanding. Thus, the very problems which Chomsky takes for granted, and which Chomsky interprets Quine as proposing answers to, do not arise for Quine. On the basis of these five main points, I conclude that there is no debate between Quine and Chomsky.

One final note. I would like to add that if indeed the mentalist picture is as deeply ingrained in Chomsky as I have been suggesting it is, then we have the beginnings of an explanation for several key aspects of the dispute. We can, for example, appreciate why Chomsky insists upon reading such phrases as "language as a network of sentences" and "the complex of dispositions" in an over-literal fashion, despite Quine's protests and despite having to present Quine as advocating such implausible views. For Chomsky's commitment to the competence-performance distinction, in conjunction with his assumption that this is a distinction which Quine must accept, leaves Chomsky with no other way to interpret Quine's remarks on language learning and verbal behavior. As well, we begin to appreciate why Chomsky is confident that his views are justified, in spite of the fact that we do not know at present how, or indeed if, mental representations and grammatical rules are instantiated in the brain. For, from Chomsky's point of view, there simply is no better explanation than the one he proposes. In addition, we come to understand why Quine repeatedly ignores Chomsky's insistence that there are numerous and insuperable problems with Quine's views. For by reading into Quine a view which Quine does not hold, Chomsky's criticisms do not address Quine's actual work, rendering a response by Quine unnecessary. We gain insight as well into the standard interpretation of Quine. For, from Chomsky's point of view, with Quine's position being manifestly false, so obviously irrelevant to the study of verbal behavior, it is little to be wondered that Quine's views would be interpreted as an expression of an arbitrary and dogmatic commitment to behaviorism.

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