UNIT 1 SEMANTIC HOLISM AND RADICAL INTERPRETATION

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1.0 OBJECTIVES

Hermeneutics poses serious problems for epistemology, as traditionally conceived. The aim of this last block is to examine those challenges and see the newer directions epistemology has taken. This first unit of this exploration will introduce us to one of those major challenges and help us examine the seriousness of this challenge. The challenge is that of semantic holism or the idea that individual words and expressions have meaning only in a context and not independently. Analysing this notion and its cousin, hermeneutic circle, we shall also trace the limits of holism. In the course of this unit we gain familiarity with key ideas such as

- Holism and semantic holism
- Two dimensions of the hermeneutic circle
- Radical translation/interpretation

1.1 INTRODUCTION

"Recent Obituaries of Epistemology" is the name of an article. *The Crisis of Philosophy* is the title of a book dealing primarily with epistemological issues. These give us an idea of the despondency felt in philosophical circles about philosophy in general and epistemology in particular. At the heart of this crisis is the development of hermeneutics and the challenge it poses to the manner in which epistemology was done in the past. Richard Rorty, one of the most famous postmodern philosophers of the twentieth century, put the matter in his characteristic, dramatic fashion when he said, "I am not putting hermeneutics forward as a 'successor subject' to epistemology.... On the

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contrary, hermeneutics is an expression of hope that the cultural space left by the demise of epistemology will not be filled". Assuming that epistemology is indeed dead (in reality, it is far from being dead), it was done in by two lethal bullets or to use a better imagery, one cluster bomb with two deadly explosives. The name of the bomb is hermeneutic circle and its deadly explosives are semantic holism and theory laden observations. In this unit and the next, we shall put our bomb squad to work, analyse these explosives to see how deadly they are. This unit is concerned with semantic holism and its limits. We shall see that beyond a point, this explosive is harmless. And the limits of holism are encountered in radical translation/interpretation.

1.2 THE "DEATH" OF EPISTEMOLOGY

If we look into any philosophical journal we will find that epistemological issues are prominently featured in them. If so, what do the so-called death-certificates of epistemology amount to? In order to answer that question, we need to focus on the specifics. Let us focus on Rorty's claim. What does he mean by 'epistemology' whose death he proclaims? Epistemology, of course, is the study of human knowledge. But 'knowledge' could be understood in a broad sense as well as a narrow sense. Broadly understood, knowledge is the information of which we become aware. Study of knowledge or epistemology would then be seen as the attempt to understand the nature, structure, limits and conditions of our cognitive achievements. When epistemology is understood in this broad sense, even the one who argues that objective knowledge is impossible is engaged in doing epistemology. Epistemology, in other words, is not identical with a positive view regarding the possibility of truth and knowledge. Upon this broad construal of epistemology, then, it makes no sense to talk of the demise epistemology.

When Rorty talks about the demise of epistemology he has a narrower view of knowledge and epistemology in mind. If epistemology knowledge is not understood generally in terms of information, but as justified true belief, with much of the discussion turns on justification. The primary task of epistemology, then, is like that of an examination board testing the candidates to truth (called beliefs or propositions) and declaring whether the candidates have passed the examination (true) or not (false). We could also say that the epistemological task is to adjudicate between propositions competing for the status of truth; and this is done by means of justification. From the argument of Rorty, it is pretty clear that he takes epistemology in this narrower sense of justification of beliefs; and his claim is that hermeneutics makes it impossible to pass from belief to knowledge.

Just as there is a broad and a narrow way of understanding epistemology, so also there is a broad and narrow way of understanding hermeneutics. In the narrow sense, it stands for that continental school of philosophy which began with Friedrich Schleiermacher and re-invented itself many times in the works of Wilhelm Dilthey, Martin Heidegger and others. Hermeneutics, as understood by Rorty, however, does not stand for this continental development alone. Rather, it is understood broadly as a cumulative trend that challenges the epistemological concern with justification. In this sense hermeneutics includes, besides the said continental school, some of the claims made on behalf of the later philosophy of Wittgenstein, trends in sociology of knowledge

and post-empiricist philosophy of science like that of Thomas Kuhn and postmodernism. These varied voices apparently show that epistemology understood in the sense of the tribunal that adjudicates among rival claimants to truth is merely a decaying corpse of yesteryears.

1.3 THE ARGUMENT AGAINST EPISTEMOLOGY

The various arguments from hermeneutics against epistemology seem to coalesce into a general pattern that contends that the findings of hermeneutics show that we cannot have a neutral territory or common ground to stand on, and decide on the objectivity of truth. To use the language of Rorty, epistemology proceeds on the assumption that "all contributions to a given discourse are commensurable" and hermeneutics struggles against that assumption. And by "commensurable" he means "able to be brought under a set of rules" such that the contending sides to a cognitive conflict can reach a rational agreement. This set of rules acts as a "permanent neutral framework", a "ground" that is common to all discourse which enables the different sides to come to an agreement. The situation is something like this. When the different teams gather in South Africa for the World Cup Football, there is already a set of rules in place on the basis of which games are played and the winners are decided. Those rules of the game function as the neutral framework within which agreement on victory and defeat becomes possible. But what would happen if each team were to come with its own different rules? Then it would be impossible to play the game or conduct the World Cup. The claim of incommensurability is something similar. The coming of hermeneutics and the holistic character of all understanding is said to undermine the possibility of a neutral framework or common set of rules and therefore, the possibility of commensurability of all discourse. "We will not be able to isolate basic elements except on the basis of prior knowledge of the whole fabric within which these elements occur". Epistemology is impossible because it seeks agreement on the basis of neutral grounds and a common set of rules, and hermeneutics tells us that there are no such grounds. This is the claim.

Check Your Progress I		
Note: Use the space provided for your answer		
1) What are the two ways of understanding epistemology?		
2) What is Rorty's argument against epistemology? What does he mean by 'hermeneutics' in that argument?		

1.4 HOLISM AND HERMENEUTIC CIRCLE

At the heart of this claim to incommensurability lies holism. The basic principle of holism was given by Aristotle in *Metaphysiics*: "The whole is more than the sum of its parts." It says that the system or the "whole" is not determined solely by its components; on the contrary, the system plays an important role in making the parts what they are and the way they behave. There are different kinds of holism. What we have just described is ontological holism or holism of "things". The kind of holism at work in incommensurability has to do with meaning (semantic holism) and justification (epistemological holism).

For a variety of historical reasons, much contemporary epistemology makes no clear distinction between meaning and truth, understanding and justification. But *prima facie*, this is an important distinction. There is hardly any difficulty in understanding a statement like "There is life on Mars"; but understanding that claim does not mean that we have any reason for believing it to be true. In order to believe it to be true we need to engage in evidential procedures. That is epistemic justification. Justification requires understanding the statement to be justified, but understanding does not amount to justification. Therefore we shall maintain this distinction understanding and justification. In this unit we shall focus on semantic holism and leave epistemological holism to the next. In examining semantic holism, our task would be to examine whether different languages are so incommensurable and to create an unbreakable barrier between them.

Semantic holism is about meaning. Let us look at it this way. All of us use language. Language is made up of words and sentences. People reading sentences like "This is an orange", "Thomas is my uncle", etc. understand what is being said, i.e., understand their meaning. But how do individual linguistic expressions get their meaning? Do they possess meaning on their own, or do they have meaning only when individual expressions get related to other expressions and to the larger system of language? Semantic holism is the view that individual expressions get their meaning only in relation to the larger whole of which it is a part; apart from the system in which it is a part, expressions do not mean anything. We saw this in connection with Wittgenstein's language games. An expression like "This is king" has any meaning only in relation to the whole game of chess and the rules by which that game is played; independently of that system of rules, the wooden piece on a chess board cannot be understood as 'king'. Semantic holism, then, contends that linguistic expressions gain meaning by the place they occupy in a system of language and the rules of that system. In the language of analytic philosophy, meaning of an expression E is constituted by language L, of which E is part. Therefore, in order to grasp the meaning of E, one must already be familiar with L.

This relationship between the part and the whole is also the basic contention of hermeneutic circle. Hermeneutic circle is a version of holism, coming from a completely different philosophical tradition, except that hermeneutics talks more about understanding than about meaning. Probing the process of understanding hermeneutic thinkers come to the conclusion that any understanding is dependent on pre-understanding. This is almost identical to the claim just made that the meaning of an individual expression E is constituted by the language game L of which it is a part. Hermeneutic circle, understood in this fashion, is a version of semantic holism. It tells us that understanding is always

an inside job: only a person with the requisite pre-understanding is in a position to understand.

At one level, hermeneutic circle makes us aware of an obvious truism that is at work in any and every instance of understanding. Take an example: imagine a situation where a non-specialist walks into a conference of specialists, say of microbiology or quantum physics or even some technical philosophy. Our visitor hears words being uttered, diagrams being drawn, and so on, but can make no sense of what is going on, whereas the specialists present in the room follow the arguments and the discussions. The difference between the one who understands the one who does not is that the one who understands has the requisite linguistic and conceptual resources (pre-understanding) whereas the other one lacks the needed resources. Understanding, in other words, is indeed an inside affair. Only the one who has the requisite pre-understanding is able to understand, and not the outsider.

Hermeneutic circle also tells us something more. It makes us realize that understanding is not the grasp of some static thing called "meaning". Understanding, rather, is a dynamic process that could take place at various levels. A person with a minimal pre-understanding will have a minimal understanding whereas another with greater pre-understanding will have greater understanding. Richard Rorty gives us a good example when he tells us that "coming to understand is more like getting acquainted with a person than like following a demonstration. In both there is a back and forth between guesses about how to characterize particular statements or other events and guesses about the point of the whole situation until gradually we feel at ease with what was hitherto strange." Yes, this constant back and forth between the particular (part) and the whole leads eventually to a deeper understanding where there is a feeling of being at home, a sense of understanding. To take another example, if a beginner were trying to understand the technical parts of the philosophy of W.V. Quine or Donald Davidson by going directly to one of their more technical works, the text would remain largely opaque to the person. On the other hand, someone with some familiarity with the author's work as a whole will have some understanding of the present text that is difficult; that familiarity with one text, in turn, helps the person to have a better grasp of the whole philosophy of the author; this increased understanding of the whole philosophy, in turn, enables the person to understand even more difficult parts, and so on, the process continues. Hermeneutic circle, in other words, tells us that understanding is a spiralling, deepening process where the greater one's familiarity with the whole, the greater the grasp of the parts and vice versa. The greater the pre-understanding, the greater the understanding. This back and forth between the parts and the whole makes us aware of the possibility of progressive understanding. In this respect, hermeneutic circle tells us something more than semantic holism. It tells us that understanding is a dynamic, circular process whereby the whole illumine the parts and the whole, in turn, is understood in terms of its parts.

1.5 THE LIMITS OF HOLISM

The fact that semantic holism and hermeneutic circle involve circularity raises a problem: how does one get into the circle? If grasping the meaning of E in language L requires familiarity with L, how does one acquire language L

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in the first place? How does one acquire a new language? If every understanding is dependent on a prior understanding, how does one acquire that first pre-understanding? While hermeneutic circle does not answer this problem of language acquisition, it does tell us that understanding is not an all-or-nothing affair but a matter of degrees that can vary from having no understanding to having a perfect understanding. On the one extreme are those with no pre-understanding and hence do not understand at all, like the outsider in a specialists' conference in our earlier example. On the other extreme there are those with the maximal pre-understanding who understand the proceedings best.

Our examples also make us aware of the limits of semantic holism and hermeneutic circle. If someone with no background in physics were to walk into a conference that discusses the latest theories in that field, our outsider will obviously not understand the matter under discussion. On the other hand, no person, in principle, is denied access to understanding that discourse. Someone who has no knowledge of physics can be introduced to it—beginning with some of its rudimentary concepts and eventually proceeding to more advanced theories— such that eventually the person can be brought to understand and participate in the conference of the physicists. The fact that an outsider can become an insider, one who lacks the requisite preunderstanding can eventually acquire it, shows that hermeneutic circle is not a closed circle. It is as if the circle begins to straighten out at certain point and the semantic fortress opens its gates to the outsiders. What we need to find out is the point at which the circle begins to straighten and where the gates of the fortress are located. Those gates are to be found in the observation sentences as conceived by W.V. Quine in his theory of radical translation.

Let us recapitulate the undeniable facts about understanding. First, there is semantic holism: the meaning of an individual expression is to be found in the system or the whole of which that expression is a part. In other words, all understanding is dependent on some pre-understanding; it is always an inside affair. Second, Understanding is not a static all-or-nothing affair but a dynamic process that shuttles back and forth between the parts and the whole. Therefore, understanding can vary from complete lack of understanding to perfect understanding. Third, hermeneutic circle is not a closed circle. Though all understanding is an inside affair, no one is excluded, in principle, from entering into the circle. All these three factors need to be taken into account by a good theory of understanding.

Check Your Progress III
Note: Use the space provided for your answer
1) Explain semantic holism.

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2)	What does hermeneutic circle tell us about understanding that is not obvious in the idea of semantic holism?
3)	Give an example to illustrate the hermeneutic circle
4)	Give an example to illustrate that the hermeneutic circle is not a closed circle.

1.6 RADICAL TRANSLATION/INTERPRETATION

Willard Van Orman Quine (1908-2000) is one of the most influential American philosophers of the twentieth century who helped us to rethink the way we conceive of the relationship between language and the world. Coming from the empiricist, analytic tradition, he came to be known first, for his attack on empiricism with his essay "Two Dogmas of Empiricism". Although coming from the Anglo-American analytic tradition, with its strong emphasis on formal logic, his advocacy of holism, as opposed to the atomism of the earlier empiricists, shows affinities between his analytic philosophy and the hermeneutic thinking of the continental tradition. But there is a difference. Even while criticising the atomism of the logical empiricists, he maintains his affinity with their scientific leanings, especially their fascination with the scientific procedures and its reliance on logic and observation. Because he is critical of the atomism of the earlier empiricists, he is faced with a question like the one we have raised: how does one acquire a new language or how does one change one's status from being an outsider to an insider?

Although Quine does not raise the question in these terms, the kind of situation he describes in radical translation is relevant to our question. Radical translation is a thought experiment, conceived by Quine in the 1950s. It places us in a setting where a field linguist has to translate into his native language (say, English) the language of some hitherto unknown tribe. Their language (Quine called it 'Jungle') is not historically or culturally related to any known language. It is further assumed that the linguist has no access to any bilinguals versed

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in English and Jungle, and that there are no translation manuals available where the linguistic equivalents of words from Jungle to English or vice versa, can be found. These features of the thought experiment are very important because it is these that make the translation radical. It is like learning a completely new language with no teacher and no books to fall back upon. In undertaking radical translation all that our field linguist has to go by is the behaviour of the Jungle speakers in publicly recognizable circumstances. For example, a rabbit scurries by and the Jungle speaker utters "Gavagai". From this the linguist suspects that the utterance is prompted by the appearance of rabbit and he tentatively concludes that the utterance "Gavagai" is to be taken as a oneword sentence and translated as "Lo, a rabbit" or "Here-is-a-rabbit" in English. But the radical translator cannot really be sure. It could be the rabbit; it could be the running of the rabbit, a part of the rabbit, or any number of other things. But from his later interaction with the native on similar occasions he is eventually confirmed or disconfirmed in his view that "Gavagai" means "Lo, a rabbit". These later occasions would include situations when the linguist would quiz the native "Gavagai?" with the intention of eliciting the native's assent or dissent. "The linguist notes the native's utterance of 'Gavagai' where he, in the native's position, might have said 'Rabbit' and looks to natives for approval. Encouraged, he tentatively adopts 'Rabbit' as translation." It is only after a process of sufficient trial and error that the linguist is able to conclude that "Gavagai" means "Lo, a rabbit".

The original point of the discussion on radical translation was to show the indeterminacy of meaning. Donald Davidson used the same thought experiment with a different emphasis and called it radical interpretation. Both the theories (radical translation and interpretation) and their implications are extensively debated and the debates still continue. Moreover, Quine himself has changed the details of his theory. Those detailed and often technical debates are not important for our purpose of answering whether the utterances of a completely alien community can be accessed by an outsider. But a little background can help us understand their positions.

For the logical positivists, observation was the cornerstone of their thinking. It provided evidence for theories as well as the foundations of meaning. Since it was so central to everything else, they set out finding rigorous criteria for identifying it and talked in terms of the "pure given" in observation as opposed to all that the observer brings to it (such as concepts that enter into our reports of observations). The rest of language gets it meaning form the "pure given", which was supposed to be fixed. Eventually they came to the realization that "pure given" is a myth (Wilfrid Sellars). Quine's thesis about the indeterminacy of meaning must be seen in this background of the positivist attempts to fix the meaning of observation sentences in terms of the given in experience. The idea is that publicly observable evidence could be interpreted in very different ways. The publicly observable factors in the given example are: (1) the physical stimuli of the rabbit; (2) the verbal stimuli from the native ("Gavagai"). But this slender evidence could be used to translate "Gavagai" in different ways, as we have noted. This was Quine's point in proposing the experiment.

Neither Quine nor Davidson leave us in any doubt that the utterances of an utterly alien community can be accessed by an outsider, although it is not easy and involves a long process. Davidson, in one of his well known articles

("On the Very Idea of a Conceputal Scheme"), even argues explicitly against radically different or incommensurable systems of beliefs. In discussing radical translation/interpretation, we will be concerned only with this common insight that in spite of semantic holism different languages and cultures are not completely inaccessible to one another. Seen in terms of accessibility to a radically alien language community, we do not even have to think of it as a thought experiment; it is something that has been done many times in the past by pioneering explorers and zealous missionaries who made totally alien languages and cultures their own. Their first attempts had the characteristic features of the situation that Quine describes. Only after their pioneering efforts at radical translation, could any translation manuals and bilingual dictionaries come into existence. It is only in our contemporary globalised village where hardly any language or culture remains radically alien, do we have to think of radical translation/ interpretation as a thought experiment.

1.7 OBSERVATION SENTENCES

The key to radial translation/interpretation is to be found in "observation sentences". As the name indicates, "observation sentences" are reports of observation. Although Quine has given up the earlier versions of empiricism, he still finds the need to give some special status to observation. One of the reasons that prompts him to give this special status is the fact it is possible to learn a new language irrespective of whether it is by the radical translator or the child learning his first language. Observation sentences, he says, "are the infant's entry to language. For much the same reason, they are the radical translator's way into the jungle language". Observation sentences can do this job, because they have some special features. First of all, they are somehow more directly linked to the world than theoretical language and therefore, "free of the indeterminacies that beset the translation of theoretical sentences and can be learned ...by ostension" i.e., by pointing to things. They are "strongly conditioned to concurrent sensory stimulation rather than to stored collateral information."

We must make a qualification here. As an advocate of holism, he is perfectly aware that all observations are not of this kind. Therefore he speaks about "degrees of observationality". Some observation sentences contain more collateral information than others. He illustrates:

"A chemist learns about compounds of copper in the course of his reading and experiments, and a physician learns about the facial symptoms of an overactive thyroid; in due course the one comes to recognize the presence of copper by a glance at the solution, and the other to recognize hyperthyroidism by a glance at the patient. The sentence 'There was copper in it' has become an observation sentence for the one, and 'He's a hyperthyroid' for the other."

Such learning by the chemist and the physician is a later development. For this later development to take place there must be some observation sentences that are more primitive; sentences that "are keyed directly to a range of perceptually fairly similar global stimuli..." It is these fairly "pure" cases of observation that are necessary for radical translation. Only they can function as the child's port of entry into a language. Quine's examples of "pure" observation sentences include, 'It's cold', 'It's raining', 'That's milk', 'That's a dog'.

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A second characteristic of such "pure" observation sentences is that they are universal. They could be said to be universal in two senses. First, they are universal to the speakers of a language. This would exclude the kind of specialized collateral information available to the chemist and the physician in the above examples. Second, they can also be said to be universal to our species. They are the "common coin, shared reference points", says Quine. But we must not take this universality to mean that the words of any particular language are universal; that is obviously false. Rather, it should be understood as pointing to an evolutionary heritage whereby we cluster the stimuli received from the environment in certain ways and not in other ways so that we identify, recognize and classify what we perceive in certain characteristically human ways.

This connects us to a third characteristic of "pure" observation sentences: innateness. According to Quine, they are the human counterpart of animal cries. Just as the animals have "repertoires of distinctive calls and cries for alerting one another to the distinctive dangers and opportunities", so do we. If our observation sentences are the human counterpart of animal cries, these must be innate to us. But Quine does not use the language of innateness; he talks of it as "a preestablished intersubjective harmony" at the bottom of which lies instinct and natural selection. In other words, at the most primitive levels of our perceptual interaction with our natural surroundings, we do have some common pre-understanding that is a part of our evolutionary heritage as a species.

There is nothing terribly exciting about any of these characteristics of observation sentences. But together, the three (link to the world of extralinguistic reality, universality, and innateness) make it possible for us to cross over to different languages, cultures and conceptual schemes. They enable complete strangers to enter into the kingdom of understanding absolutely alien languages and cultures and thereby extravagant claims of incommensurability are shown to be unwarranted.

Does the possibility of radical translation undermine the basic insight of the hermeneutic circle that understanding is always an inside job? Not at all; otherwise there would be no need for the radical translator to get the assent or dissent of the native to his question "Gavagai?" All that radical translation does is to open up an entry port to the outsider. Although the entry port is kept open to the outsider, it is the insider (the native) who decides whether the outsider qualifies to enter; the outsider can apply, but the insider issues the visa. The insider makes the judgment as to whether the radical translator has understood his language correctly. In this way radical translation opens up an entry point to the outsider without undermining the hermeneutic character of all understanding.

Check Y	Your Progress III
Note:	Use the space provided for your answer
1) Wh	at makes a translation radical?
••••	

2)	What are the features of "pure" observation sentences that makes radical translation possible?
3)	Radical translation does not undermine the basic hermeneutic insight. Explain.

1.8 LET US SUM UP

The linguistic turn of philosophy, especially the hermeneutic developments, has profound implications for epistemology. Sometimes these implications are said to be so drastic that all that remains to be done with it is to bury its corpse (as it is already declared dead). One of the reasons for making this declaration is the alleged incommensurability arising from hermeneutic circle. Incommensurability is the denial of neutral grounds. This denial could be either in terms of understanding or in terms of justification. The former tells us that all understanding takes place within a circle of pre-understanding and therefore, understanding across different linguistic and cultural frameworks is impossible. Examining this claim more closely we came to the conclusion that while circularity involved in understanding is undeniable, a subset of observation sentences are more or less common to us as a species and they prevent us from being enclosed into our own circle.

1.9 KEY WORDS

Incommensurability

is the idea that two theories, languages or conceptual schemes cannot be compared because there is no common measure or neutral grounds on which to do so. At the level of understanding it means that two people with their different ways of understanding will not be able to understand each other because even while using the same words they mean different things. At the level of epistemology it means that there is no neutral evidence by which two competing claims to knowledge (or theories) can be adjudicated.

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expression is to be found in its relation to the system of language of which it is a part.

Radical Translation: Translation of expressions from a completely alien

language from the scratch, without the mediation

of any bilingual persons or manuals.

1.10 FURTHER READINGS AND REFERENCES

Bechtel, P. William, and Eric Stiffler, "Observationality: Quine and the Epistemological Nihilists," *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association* 1978 (1978): 93-108.

Dreyfus, Hubert L. "Holism and Hermeneutics." *The Review of Metaphysics* 34, no. 1 (1980): 3-23. (for the link between Rorty, Gadamer, Quine and Davidson)

Gibson, Roger. "Remembering Willard Van Orman Quine (1908-2000)." *Journal for General Philosophy of Science/Zeitschrift für allgemeine Wissenschaftstheorie* 33, no. 2 (2002): 213-29. (for a brief introductory view of the life and philosophy of Quine).

Haack, Susan, "Recent Obituaries of Epistemology," *American Philosophical Quarterly* 27, no. 3 (1990): 199-212.

Hoy, David Couzens "Hermeneutic Circularity, Indeterminacy, and Incommensurability." *New Literary History* 10, no. 1 (1978): 161-73. (for a brief overview of different hermeneutic thinkers).

W.V. Quine, Word and Object, Cambridge, MA: MIT Press, 1960, Chapter 2.

Quine, W. V. "In Praise of Observation Sentences." *The Journal of Philosophy* 90, no. 3 (1993): 107-16.

Rorty, Richard, *Philosophy and the Mirror of Nature*, Princeton: Princeton University Press, 1979.

Szubka, T., "Quine and Davidson on Perceptual Knowledge," in *Knowledge, Language and Logic: Questions for Quine*, edited by Alex Orenstein and Petr Kotatko, 7-21 (Dordrecht/Boson/London: Kluwer Academic Publishers), 2000. (Gives a comparative view of Quine and Davidson on perception. The whole book is a comprehensive critical study of Quine's philosophy with an introductory chapter and concluding responses by Quine).

Thiselton, Anthony C. *Hermeneutics: An Introduction*. Grand Rapids, Mich.; Cambridge, U.K: W. B. Eerdmans, 2009.

http://people.su.se/~folke/DandQ.pdf. Tersman, Folke. "Davidson and Quine's Empiricism." Accessed on 15th June 2010.