Aporia Vol. 10 number 1, 2000

What It Means To Know

REBECCA C. HENDRICKSON

WORDS CONSIDERED WELL DEFINED IN ONE CONTEXT will not necessarily be well defined in another a more knowledgeable context, and words that are at best ambiguously defined to begin with can become nearly incomprehensible when thrust into an entirely new situation of understanding. Such a problem is especially easy to come by in philosophy of mind, where our understanding base is changing more quickly than much of our vocabulary. A particularly important example of this phenomenon is found in the concept of what it is to know something. Formed at a time when our understanding of both the mind and its context in the physical world were radically different than they are now, this concept is, in its current form, utterly insufficient to allow us to deal with the questions with which the field is currently grappling. We are, however, finally at a point where it has become possible to work out a redefinition of this concept based on our newer, slightly more physical knowledge of the mind/brain. This work allows us to both unsnarl some of the confusions based on previous failed attempts at just such a redefinition, as well as recast many of our current dilemmas—such as those of Searle, Nagel, and McGinn—in a bit clearer light. Finally, when all of this is done, we reach the relieving conclusion that the state of philosophy of mind is not nearly as dire as it is apt, at times, to appear.

Agreement on what it means to know something has always been a bit shaky. The *Oxford English Dictionary* prefaces its definition of the word

Rebecca Hendrickson is a senior biochemistry and neurobiology major at the University of Washington. After graduation she plans to pursue an M.D./Ph.D. in psychiatry and neurobiology.

with an explanation that there exist two competing interpretations of the word's meaning. The first suggests that this meaning splinters into two distinct branches, or forms, of knowing: one based on the comprehension (or understanding) of a thing and the other based on the apprehension (or perception) of a thing. The second interpretation argues that this second form of knowing is invalid, and that all actual knowing can be translated into the knowing of particular facts about a thing.[1]

When this amalgam of a definition is applied to modern philosophy of mind, it produces predictably confused results. Frank Jackson, in his famous thought experiment exploring how there could be a difference between knowing about something and experiencing it first-hand, found himself trapped into the conclusion that such a situation could be explained only by essential aspects of our conscious experiences being nonphysical and therefore, epiphenomenal (392). This confusion can be seen to have figured equally significantly in John R. Searle's famous Chinese Room analogy.[2] In this case, Searle's logic appears most cleanly

[1]"Know, in its most general sense, has been defined by some as 'To hold for true or real with assurance and on (what is held to be) an adequate objective foundation'. Mr. James Ward, in Encycl. Brit. XX. 49 s.v. Psychology, assigns to the word two main meanings: 'To know may mean either to perceive or apprehend, or it may mean to understand or comprehend....Thus a blind man, who cannot know about light in the first sense, may know about light in the second, if he studies a treatise on optics.' Others hold that the primary and only proper object of knowing is a fact or facts (as in our sense 10), and that all so-called knowing of things or persons resolves itself, upon analysis, into the knowing of certain facts about these, as their existence, identity, nature, attributes, etc., the particular fact being understood from the context, or by a consideration of the kind of fact which is usually wanted to be known about the thing or person in question. Thus, 'Do you know Mr.G.?', 'Do you know Balliol College?' have different meanings according to the kind of facts about Mr. G. or Balliol College, which are the objects of inquiry." *Compact Edition of the Oxford English Dictionary*, entry for 'know'.

[2]Searle's Chinese Room thought experiment asks the reader to imagine an individual who speaks only English, and who has been placed in a locked room with several baskets of Chinese symbols and a rulebook, written in English, for the manipulation of those symbols. The rulebook makes no mention of the "meanings" of the symbols, but explains their manipulation on the basis of syntax alone. The

explained by the interpretation that in his own attempt to explain this same difference between the possession of all relevant information in some form or another and the experience of knowing something that humans are so acutely aware of, he arrived at the conviction that this special second form of knowing something must be a unique production of the physical components of our brains. It was this conviction that fueled his arguments for a qualitative and irreducible difference between semantic and syntactic knowledge.[3] Indeed, the conclusion that the differences in the two forms of knowledge must be the result of just such a syntax/semantics duality is prevalent throughout philosophy of mind.[4]

What it is important to notice, however, before one accepts these conclusions too readily, is that the definitional conflict on which they rely was formed at a time when we knew far less about how the mind works than is known today. In particular, they were formulated at a time when the predominant assumption was that the human mind is perfectly transparent to itself. In other words, it was presumed that what "one part" of the mind knew, "all parts" of the mind must know—to the

reader is then asked to suppose that there takes place an exchange between the person in the room and some actual Chinese speakers outside the room, who pass questions, written in Chinese, under the door for the person in the room to answer. One is to suppose that the rule book provides such sophisticated instructions for symbol manipulation that the Chinese speakers outside the room can ask the person in the room anything they like, but will not be able to distinguish him from a true Chinese speaker. The point of the thought experiment is that although the individual in the room is capable of mimicking all the outward appearances of one who truly understands Chinese, the fact that he really only has access to a formal, syntactic rule-based system for manipulating the symbols precludes him from ever actually possessing a true, semantic understanding of the language. The suggestion that given such a setup, the individual in the room would have nothing that could be taken for a real understanding of Chinese is assumed by Searle to be an obvious point (*Minds* 32–33).

[3]Cf. Searle's "Minds, Brains, and Programs," "Author's Response," and "Yin and Yang Strike Out." Also Fodor's "Searle on What Only Brains Can Do" and "Afterthoughts: Yin and Yang in the Chinese Room."

[4]Cf., for example, Dennett's *Elbow Room: The Varieties of Free Will Worth Wanting*, 28–29.

extent, at least, that philosophy has even been able to conceive of the mind as being composed of distinct parts. This vein of thinking is seen most explicitly laid out by such historically fundamental thinkers as Descartes, who comments famously regarding his conviction that there could not be a thought in his mind that he himself did not know (29). It can also be seen as a key assumption intertwined throughout the ideas at which we have just now been looking. In Jackson's analysis, for example, this completely unmentioned assumption is obviously essential to his conclusions; if it is removed, Jackson's dilemma dissolves immediately, guilty of the same fallacy as if he had told a tale about two women locked in a room, one of whom was given all sorts of information, and the other of whom was then released into the world to test the knowledge her friend had been given. Searle's issues as well, at heart, depend on this same assumption. It is only in this context that it makes any sense to appeal to one's intuition that the man in the room does not himself know Chinese, regardless of the abilities lodged in his brain; in particular, it is clear that Searle, in assuming that the internalization of the rules the man has been given is sufficient reply to the systems reply he was often given, is certainly not counting on issues of what part of the man's brain knows what.

The next point that must be noted is that this assumption is essentially wrong. There is no reason to think that the mind is internally transparent, and, as we shall see, there are a good number of reasons to think that it is not. First, as is clear to anyone who has ever thought about the problem of how one would go about designing an artificial intelligence (AI) program, one of the biggest problems inherent to designing a thinking system modeled after our own minds is how to craft an information-retrieval system able to procure the relevant information at the proper time. Any conception we can come up with for how the brain processes information faces similar problems: information stored in one form, in order to have bearing on later decisions and processing, must be appropriately retrieved; if it is not, the fact that one part of the brain has the information does not mean that the part of the brain processing newer information will be able to bring that older information to bear now. Although this does not demonstrate with certainty that the brain has not found a way around this difficulty, it does suggest that it is foolhardy to assume that it must have.

What about when we examine our own behavior? Do we behave like creatures whose minds operate with total internal transparency?

Clearly, on the level of informational recall, the answer is a resounding "no." We have all had experience with trying to remember that bit of crucial information that is "just beyond the edge" of what we can mange to bring to conscious attention right then, but which we remember clearly a few minutes later. The information was there, in our minds, all along, but somehow just not in the right place/form right when they needed it. To look at why and how such a phenomenon might occur, as well as what it might mean for our conscious minds more directly, it is useful to be able to explore the topic in the context of a more specific model of mind/brain function. One model that is particularly well suited to just such an exploration is the Multiple Drafts Model of consciousness, put forth by philosopher Daniel Dennett in his book *Consciousness Explained* as a synthesis of the work of a multitude of other researchers and philosophers.[5]

Before we delve into the details of how this model explains our observations, however, it is worthwhile to note that even as he was forming this model, Dennett made the concept of consciousness as essentially intertwined with the resolution of imperfect internal transparency of mind a cornerstone of the logic motivating the theory's development. In a book based on a series of lectures given nearly a decade before *Consciousness Explained* was released, Dennett attempts to motivate his suggestion that consciousness is best viewed as an internal communication system modeled in a very real way after the concept of "talking to oneself." He comments:

> Under what conditions would the activity of asking oneself questions be useful? All one needs to suppose is that there is some compartmentalization and imperfect internal communication between components of a creature's cognitive system, so that one component can need the output of another component but be unable to address that component directly. (*Elbow Room* 40–41)

[5]It is important to notice that one need not even subscribe to Dennett's model in order to acknowledge that the fact that such a model can have these results demonstrates that the exits indicated from the relevant dilemmas must therefore exist.

This concept was then expanded in his later work, where he writes that:

> All that has to be the case for this practice to have this utility is for the preexisting access-relations within the brain of an individual to be less than optimal. Suppose, in other words, that although the right information for some purpose is already in the brain, it is in the hands of the wrong specialist; the subsystem in the brain that needs the information cannot obtain it directly from the specialist—because evolution has simply not got around to providing such a "wire." (*Consciousness Explained* 195–96)

Already we know what answer this model provides to our question of whether or not our minds have been blessed with internal transparency. Before we can utilize this information in the reformulation of our concept of "to know," however, we need to understand a bit more clearly the mechanisms by which the model suggests this issue is dealt with by our minds. Dennett's theory on this subject relies heavily on what he calls the "Pandemonium Model" of thought. In this model, much of our brain is structured into a host of subroutines that function as quasi-independent demons, whose job it is to each run around comparing the information they have regarding the situation at hand to the stored information and plans laid out in the brain, and produce together an array of pattern-matched options for ideas and actions that then compete with each other to select out the most accurate and productive. Writes Dennett,

> And in place of the precise, systematic "fetch-execute cycle" or "instruction cycle" that brings each new instruction to the instruction register to be executed, we should look for imperfectly marshaled, somewhat wandering, far-from-logical transition "rules," where the brain's largely innate penchant for "free association" is provided with longish association-chains to more or less ensure that the right sequences get tried out. (*Consciousness Explained* 225)

In other words, we cannot expect our brains to have ideal information-retrieval systems. Instead, depending on the way a particular bit of information has been stored, it will be recognized differently, and at different times, by the information-retrieval demons that drive our thinking processes.

At last we have developed the grounds on which we can formulate our new understanding of what it means to know something, and begin to answer the question of why there has been so much confusion about whether or not there exist two different forms of knowledge. The mistake that has until now been so commonly made is to assume that the observation of what appear to be two distinct kinds of knowing—conceptual and perceptual—must necessarily imply that there must be two kinds of knowledge. This is the origin of Jackson's physical vs. "qualia" knowledge, and of Searle's semantic vs. syntactic knowledge. The only option left for one who wishes to maintain that there exists only one kind of knowledge is to deny even that there exist two kinds of knowing. This is the trap that our realization that the mind is not perfectly transparent has sprung for us, however. For now, we are able to see that an alternate explanation for the two kinds of knowing we observe in our lives is that the same kind of knowledge can just be stored in different ways. As we saw above, the treatment this knowledge receives in our brain is imperfectly linked to its content and is instead significantly form-dependent. Thus, the different experience and different subsequent associations made as a result of having experienced something, versus knowing the same relevant facts but in a different way, is then explained by the differential processing treatment that results from the two ways knowledge is received and stored.

To make our new definition more concrete, we can observe that even while acknowledging the point of the second interpretation—that there is at heart only one kind of knowledge that one can possess—we can nevertheless explain the dichotomy pointed to by the first interpretation by considering the first (conceptual) form of knowing to be a general reference to the possession, usually but not always in an linearly logical format, of knowledge about a thing, while viewing the second (perceptual) form of knowing as referring only to the more particular situation of possessing knowledge that is in the format provided by one's sensory input subroutines. One can conceptualize the kind of difference we are talking about by thinking of the difference between knowing (1) that A=B, B=C, and C=D, and knowing (2) that A=B=C=D. Now, as long as the question asked is of the form "Does A=D?", and we've got a couple of logic circuits built in to remind us that if two things are both equal to a third thing then they are equal to each other, then both forms of knowledge will be sufficient. But if a case should come up with a busy subroutine-demon whose job it is simply to run around looking for examples of A=?=?=D, there is a good

chance the first form of knowing won't produce the same result the second form will. It is from this kind of differential result for subsequent information processing's references to earlier experiences versus bits of abstract knowledge that our dichotomous definitions of knowing have arisen.

Now, what does the resolution of this difficulty mean for philosophy of mind? We have already seen how the introduction of the concept of imperfect internal transparency dissolves the dilemma Jackson presents us in his paper; with the work laid out above, we have even seen how his two presumed kinds of knowledge actually arise out of the different storage forms of that knowledge. How about our other dilemma discussed above, authored by Searle? Before the confusion of this piece may be completely resolved, however, there is still one final definitional issue to clear up. Although, as was discussed above, it is reasonable to ascribe much of the infamous syntax/semantics distinction's gut-level motivation to an attempt to resolve the internal conflict inherent in our traditional working-definition of "to know," the grounds on which this argument have been logically justified are not the same as the grounds on which it has been intuitively sold, and must hence be dealt with independently.

Traditionally, the argument used to explain the syntax/semantics distinction for meaning is conceived of as running parallel to the distinction as it is defined in the context of grammar. This argument suggests that there are two kinds, or forms, of meaning contained in a sentence—that contained in the sentence's structure, or syntax, and that contained in the sentence's content, or semantics. The parallel in philosophy of mind suggests that so far, we can make AI that is able to manipulate quite adeptly syntax-type knowledge, but that we will never be able to get past this, because all that a mechanical system is capable of doing is manipulating symbols that are only defined relative to certain patterns of input/output. As these patterns of input/output can never be independently defined or given meaning it is concluded that an artificially created machine can never possess semantic-type knowledge (Dennett, *Elbow Room* 28–29).

The fallacy of logic here is perhaps a difficult one to see, at first, because we have all been so well trained not to believe it. But the key realization is not that semantic knowledge actually can be created out of syntactic knowledge but that true semantic knowledge just does not exist in the first place. This, really, is the issue the second interpretation of the word "to know" was striving to clarify—that, in the end, all knowledge comes down to simple facts that can be categorized on some level as

statements relating two sets of syntactical categories. Why this statement is true can perhaps best be understood through the internal experiment of sitting down and honestly challenging oneself to come up with any concept, fact, or object that one believes one knows that can, in the end, be defined in any absolute sense (i.e., defined in any sense other than through its relationships with other facts and bits of knowledge and fragments of sensory data). Although we usually talk like when we see a thing, we see in some way its essence, we must keep in mind that the only information we receive when we perceive an object is the raw data from our sensory input; any further information we learn about this object can only be related to this collection of sensory data we take to represent the object which is now familiar. There is no more essential way of learning about something than this repeated linking of sensory data with previous sets of sensory data and forming patterns out of it that we then consider information. And yet, we don't usually feel like we are missing the gist of whatever objects we interact with from day to day. Clearly, our general conception of what it is for us to know something is able to survive quite well on syntax-based information alone.

Although this logic alone is not enough to topple our faith in the syntax/semantics dichotomy, when combined with the work we have already done to remove our original intuition that such a thing should even exist, we are left with no real reason to expect that this mythological semantic knowledge, the way it is currently defined, should exist anywhere in our universe. Finally, we are in a position to fully understand Searle's Chinese Room argument, and where it goes wrong. First, as we saw above, any physicalist who buys into the syntax/semantics dichotomy is faced with a serious difficulty in that at least on first glance, the conclusion that no machine can create semantic knowledge rules out the machine we call the human brain, as well. This difficulty is particularly troubling for Searle, who is most definitely a physicalist, (*Minds* 18) yet whose conviction that it must be this very syntax/semantics distinction that holds the key to explaining the difference in the two forms of meaning presented above, makes him unwilling to give up the idea that the human mind is capable of generating semantic knowledge. It is because of this difficulty that Searle comes to the conclusion that there must be something inherent in the actual, chemical makeup of our brains that allows them to escape this trap. As we have already removed, however, both the need to rely on the syntax/semantics dichotomy to explain the confusion over the meaning

of "knowing," as well as any independent reason for expecting such a dichotomy to exist, we may safely avoid Searle's conclusions.

There still remains, however, one final aspect of Searle's argument that we are ignoring, but which our newfound definitions also have the power to help us confront. This is the aspect of what it means to be conscious. Although it does make sense to interpret Searle's work as an attempt to resolve the two-forms-of-knowing disjunction with appeals to the syntax/semantics dichotomy, it is hard to deny that the final driving force behind our willingness to even consider Searle's outlandish conclusion that there must just be some semi-miraculous event produced by the physical neurons themselves that creates our sensations of experience in the end comes down to our trailing confusion regarding where such a thing as consciousness could possibly originate. Indeed, beyond Searle's writings, philosophy of mind abounds with pessimistic proofs of the impossibility of our ever being able to understand consciousness. As a final test of the logic that has been presented in this paper, it makes sense to look quickly at what these concepts hold regarding the difficulties we have explaining consciousness itself.

Two of the most well-known papers in this genre are Thomas Nagel's "What Is It Like to Be a Bat?" and Colin McGinn's "Can We Solve the Mind-Body Problem?" Together, they boil down to two basic critiques against the possibility of a scientific theory of consciousness. The first, which is addressed primarily in Nagel's paper, relies on the suggestion that because the experiential aspect of knowledge is uniquely and essentially subjective, it cannot ever be captured by an objective science.[6] The second critique, which is the primary focus of McGinn's paper, suggests that because consciousness is an inherently experiential quantity, but our modes of thinking operate in inherently spatial terms, that human understanding must therefore be cognitively closed with respect to consciousness itself (357–58).

We may make an enormous introductory simplification, however, by first splitting Nagel's argument into two halves. The first half, which deals

[6]Writes Nagel, "Experience itself, however, does not seem to fit the pattern. The idea of moving from appearance to reality seems to make no sense here. What is the analogue in this case to pursuing a more objective understanding of the same phenomena by abandoning the initial subjective viewpoint toward them in favor of another that is more objective but concerns the same thing?" (425).

with the impossibility of understanding the thought patterns of other conscious creatures, can then be dealt with off the top, while we leave the second half, which deals with the impossibility of obtaining an objective view of the building blocks of consciousness themselves, to be dealt with along side the related critique on McGinn's part. The first half of Nagel's argument has been dealt with fairly thoroughly by both Dennett and Rosenthal. Rosenthal's response is summarized nicely by his explanation that "since not all knowledge about mind is derived from introspection, we have no more reason to suppose that mental states have no non-introspectible nature than that the nature of physical objects is wholly perceptible" (475). It is an enactment of this claim that there may very well be a method for the objective exploration of our mental lives that is provided by Dennett, with his method of "heterophenomenology."

The second half of Nagel's arguments, however, although also enjoying a similar dual-response from Rosenthal and Dennett, has not been quite so cleanly dealt with. On this front, Rosenthal begins his attack by pointing out that

> To understand how consciousness can occur in physical things, we must dissolve the intuitive force of that gulf. And we can do so only by explaining the consciousness of mental states in terms of mental states that are not conscious. For the stark discontinuity between conscious mental states and physical reality does not also arise when we consider only nonconscious mental states. (474)

Dennett then jumps in, meeting this challenge as he did the first one, by proposing an actual theory to do what Rosenthal has suggested is possible; arguably, his Multiple Drafts Theory of consciousness succeeds reasonably well in laying out a very rough version of just this very thing. But this all succeeds, as Rosenthal acknowledges, only in reducing the "stark discontinuity between conscious mental states and physical reality" to the question of how the very basic property that I will call awareness[7] could arise from what we now know of the physical world. It is this basic property that McGinn's argument is designed to suggest we can never hope to understand.

[7]To distinguish it from the image of a "conscious mental state" that is generally conjured up in this context by the word consciousness itself.

Let us look closely at the foundation of McGinn's argument. Writes McGinn:

> My argument will proceed as follows. I shall first argue that P is indeed perceptually closed; then I shall complete the argument to full cognitive closure by insisting that no form of inference from what is perceived can lead us to P.... But why is this? Basically, I think, it is because the senses are geared to representing a spatial world.... We get [theories] by a sort of analogical extension of what we observe.... For example, we arrive at the concept of a molecule by taking our perceptual representations of macroscopic objects and conceiving of smaller scale objects of the same general kind. This method seems to work well enough for unobservable material objects, but it will not help in arriving at P, since analogical extensions of the entities we observe in the brain are precisely as hopeless as the original entities were as solutions to the mind-body problem. We would need a method that left the base of observational properties behind in a much more radical way. (357–59)

Equipped with our recent work, however, we are in a position to recognize McGinn's mistake: McGinn has fallen prey to the assumption that even if he hasn't taken the time to identify exactly what it is or where it lies, there must somewhere exist such a thing as semantic knowledge—and it is this that his proof is designed to demonstrate can never be found for the subject of consciousness. This mistaken assumption is seen most clearly on McGinn's part in his comment that the method of spatial analogies "seems to work well enough for unobservable material objects." Yet, as any student struggling with a reasonably rigorous course in quantum mechanics can tell us, the modern scientific theory of material objects is arguably the least intuitive theory ever produced by mankind; indeed, if the last hundred years of physical scientific inquiry has taught us anything, it is that our hard-wired assumptions about the nature of matter, space, and time are at best exceedingly rough approximations of at most a small fraction of these concepts' actual properties. Thus, McGinn may be correct in pointing out that the best we can hope for in an understanding of consciousness is a roughly formed, spatially conceived, analogistic model of the phenomena, but his mistake lies in thinking that our knowledge of anything else is any different.

In a way we have conceded defeat on several fronts. We have acknowledged that there are very real and, on an immediate personal level, insurmountable differences between firsthand experience and the possession of the same relevant facts in a different form. We have come to the conclusion that true semantic knowledge, a thing we thought we already possessed, doesn't even exist. And we have acknowledge that McGinn was actually, in a way, correct in his proof that we can never fully understand consciousness—in fact, perhaps we have made the situation worse, by suggesting that not only can we never understand consciousness, but that actually, we can never fully understand anything! At the same time, however, we have made significant progress in return for our losses. We have resolved, finally, both our confusion over what it means to know something, as well as our confusion as to how a semantic engine could have been constructed out of a syntactic one. We have avoided Jackson's intellectual trap leading us into the dark land of epiphenomenalism. And, finally, we have seen that although we may never be able to understand consciousness on the complete, intuitive level we might like to, that this doesn't mean that we have to give up. Simply because physics has learned that the physical world cannot be explained cleanly by intuitive, spatially based analogies does not mean that they are no longer able to make progress. Similarly, just because we have discovered the same thing about consciousness does not mean that we will not be able to make significant progress. It just means there is a lot of work left to be done.

Works Cited

Descartes, Rene. "Selections from Meditations on First Philosophy." *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 29.

Dennett, Daniel. *Consciousness Explained*. New York: Little Brown and Co., 1991

_____. *Elbow Room: The Varieties of Free Will Worth Wanting*. Cambridge, MA: MIT Press, 1984.

Fodor, J. A. "After-thoughts: Yin and Yang in the Chinese Room." *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 524–25.

_____."Searle on What Only Brains Can Do." *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 520–21.

Jackson, Frank. "What Mary Didn't Know." *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 392–94.

"Know." *The Compact Edition of the Oxford English Dictionary*. 1971.

McGinn, Colin. "Can We Solve the Mind-Body Problem?" *Mind*. 98. 391 (1989): 349–66.

Nagel, Thomas. "What Is It Like to Be a Bat?" *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 422–28.

Rosenthal, David. "Two Concepts of Consciousness." *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 462–77.

Searle, John R. "From 'Author's Response.'" *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 521–23.

_____. "Minds, Brains, and Programs." *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 509–19.

_____. *Minds, Brains, and Science*. Cambridge, MA: Harvard UP, 1984.

_____. "Yin and Yang Strike Out." *The Nature of Mind*. Ed. David M. Rosenthal. New York: Oxford UP, 1991. 525–26.