

## LINGUISTIC COMPETENCE AND UNCONSCIOUS KNOWLEDGE

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The distinction between competence and performance is central to Chomsky's conception of the nature of linguistics. The task of the linguist, as Chomsky conceives of it, is not to account for what a speaker does with language, his performance, but rather to characterize his linguistic competence, his knowledge of the language.<sup>1</sup> Hence we must, according to Chomsky, distinguish between competence and performance in order to arrive at a correct conception of the goals of linguistic theory.

In the years since the publication of Aspects, Chomsky's conception of competence has been analysed and criticised by various philosophers.<sup>2</sup> Chomsky has responded and the ensuing controversy has been heated. Jerrold Katz, in his book Semantic Theory, reviews the dispute and offers a defense of Chomsky's position. In this paper I present a critical analysis of Katz's defense of Chomsky. The analysis reveals, in my opinion, that Katz has not succeeded in vindicating the notion of competence. If this is correct, then we are justified in viewing that notion, and the entire Chomskian framework of which it is such an integral part, with suspicion.

### I

To lay the foundation for my discussion of Katz, let me briefly review the problems to which the notion of competence gives rise. Chomsky describes a speaker's linguistic competence as "his knowledge of his language."<sup>4</sup> In itself this seems harmless enough. All of us would say that speakers have knowledge of their native language, in the sense that they can use the language to communicate, discriminate between acceptable and unacceptable sentences, and so forth. However, Chomsky makes it clear that by "knowledge of a language" he has in mind not only a speaker's intuitive ability to operate with the language but his knowledge of the rules of the language.<sup>5</sup> Chomsky further

maintains that all normal human beings have knowledge of the rules of so-called "universal grammar," which defines the form which the rules for particular languages can take. Now of course Chomsky is aware that a speaker who is not a linguist is unable to state the rules governing his language, much less to state the rules of universal grammar.<sup>6</sup> He therefore takes the position that the speaker has "unconscious" or "tacit" knowledge of linguistic rules.<sup>7</sup> The problem before us may now be stated simply: Is Chomsky correct in maintaining that every normal human being has unconscious knowledge of the rules of his own language and of the rules of "universal grammar"?

Before considering what Katz has to say about this I want to stress two points regarding the interpretation of Chomsky's position. First, neither Chomsky nor Katz holds that speakers have conscious knowledge of linguistic rules. Chomsky himself has called this position "absurd" and has accused one of his critics, Gilbert Harman, of misrepresenting him on this point.<sup>8</sup> Whether or not this charge is justified, it is important to emphasize that the thesis we shall be discussing is that speakers have unconscious knowledge of linguistic rules and that this thesis does not entail that they have conscious knowledge of such rules.

The second point that needs stressing is that Chomsky's "competence" is not to be conceived as a speaker's ability or capacity to use language. The terminology here is somewhat misleading. When we speak of a person as being competent, we normally mean to ascribe to him some sort of skill or ability. What we ordinarily call competence involves what Ryle and other philosophers have called knowing-how. Chomsky has made it clear, however, that what he calls competence is something different from what the ordinary usage of the word would tend to suggest. A speaker's competence in Chomsky's sense is his knowledge of linguistic rules. Thus competence for Chomsky is not identical with a speaker's ability to use language, but is rather part of the explanation of that ability.

## II

I turn now to Katz's defense of the claim that speakers have unconscious knowledge of linguistic rules. Katz begins his discussion by saying that philosophers such as Gilbert Harman have "taken issue with Chomsky's statement of the competence-performance distinction." (p. 25)<sup>9</sup> He goes on to say that he does not want to become involved in the dispute between Chomsky and his critics because he thinks it is just "a terminological matter." (p. 26)

I have two problems with what Katz says here. First of all, I find it difficult to reconcile his statement that he does not want to become involved in the controversy between Chomsky and Harman with the fact that he devotes the next eleven paragraphs of his book to arguing that Chomsky is right and Harman is wrong. Second, and more important, Katz's saying that the critics have objected to Chomsky's statement of the competence-performance distinction and that the dispute is merely "terminological" seems to reflect a failure to appreciate the seriousness of the criticisms that have been raised. The point that has been made by Harman and others is not that Chomsky has formulated the competence-performance distinction improperly but that there is no such thing as competence as Chomsky has described it. Obviously this point is not simply terminological. Competence, according to Chomsky, is what the linguist is trying to describe. Thus if there is no such thing as competence, it will no longer be clear what the linguist is supposed to be trying to do. Chomsky's theoretical framework for linguistics would have collapsed.

I would expect Chomsky himself to agree with this point. Certainly the vigor of his responses to Harman suggest that he does not regard the dispute between them as merely a matter of terminology.

In any event, the admission that there is no such thing as competence would undermine not only Chomsky's conception of linguistics, but also his views on philosophy and psychology. His defense of the philosophical doctrine of innate ideas is based on the claim that

people are born with knowledge of the rules of universal grammar, and his belief that linguistics, as he conceives of it, can serve as the model for psychology involves the assertion that psychology needs "a concept of what is learned -- a notion of competence -- that lies beyond the conceptual limits of behaviorist psychological theory."<sup>10</sup>

Returning now to Katz's discussion, the next point to be noted is that his position regarding unconscious knowledge is somewhat different from Chomsky's. Many philosophers hold that anything which deserves to be called 'knowledge' may be classified either as knowing-how (i.e., roughly, having a certain skill or ability) or knowing-that (i.e., roughly, holding a belief which, in virtue of certain characteristics such as being true and being justified, constitutes knowledge). Chomsky, on the other hand, seems to hold that a speaker's knowledge of linguistic rules is neither a case of knowing-how nor a case of knowing-that. Our knowledge of such rules constitutes, on Chomsky's view, a special third kind of knowledge which is not covered by the usual dichotomy.<sup>11</sup> It is on this point that Chomsky and Katz part company. Katz is willing to grant, at least for the sake of argument, that a speaker's knowledge of the rules is a form of knowing-that.

It seems to me that Katz's position on this point constitutes an improvement over Chomsky's. It is just not clear what Chomsky's third kind of knowledge, different from either knowing-how or knowing-that, could be. Moreover, while it would definitely be a mistake to construe competence as a form of knowing-how, there seems to be no reason for denying that competence is a form of knowing-that. It seems fair to understand the claim that speakers have unconscious knowledge of rules as amounting to the claim that they know unconsciously that the rules are such-and-such.

Having noted that some philosophers view the notion of unconscious knowledge with suspicion, Katz considers the idea that the notion has been vindicated by psychoanalytic theory. "Psychology," he says, suggests an extension of the concept of knowledge to "what can be brought to consciousness under appropriate conditions,

for example, the psychoanalytic situation". (p. 27) Katz goes on to describe an experiment on the basis of which it would be plausible to describe a person as having subliminal memories. Such experiments, he says, suggest that knowledge encompasses something more than conscious knowledge. At this point it begins to appear that Katz wants to define unconscious knowledge of linguistic rules by claiming that there is a parallel between such knowledge and the kind of unconscious knowledge familiar to psychologists. But Katz surprises us by pointing out a flaw in what might have seemed a promising defense of his and Chomsky's position. The problem, as Katz says, is that knowledge of linguistic rules is not "brought to consciousness in the manner of subliminal memories or repressed thoughts." (p. 27) Katz's point here can, I take it, be put this way: In making people aware of subliminal memories and repressed thoughts we normally do not do anything which could naturally be called teaching, whereas, on the other hand, the normal way of making people aware of linguistic rules is to teach them the rules. This being so, it would seem that when a person becomes aware of subliminal memories and repressed thoughts he simply becomes conscious of what he already knew, but that when he becomes aware of linguistic rules he has learned something which he did not previously know.

Thus Katz himself admits that unconscious knowledge of linguistic rules is different from the unconscious mental states posited by psychologists, and he therefore concedes that we cannot establish the reality of the former by appealing to the latter. But if unconscious knowledge of the rules of language is not like the unconscious mental processes of the psychologist, what is it like? And if the appeal to psychology does not establish the reality of our supposed knowledge of linguistic rules, what does establish it?

Katz hints an answer to the first of these questions by saying that the real analogue to knowledge of linguistic rules is not the unconscious knowledge of the psychologist but the knowledge of geometry displayed by the slave boy in Plato's dialogue the *Meno*. Immediately after drawing this comparison Katz writes. "The bias on the part of the critic is not against unconscious knowledge per se, it is the empiricist bias against unconscious knowledge of general principles . . ." (p. 27)

Katz's reasoning here is hard to follow. In the first place it is not at all clear that Socrates is correct in claiming that the slave boy knew geometry even before he submitted to Socrates' questioning. The boy does, after all, start out by giving several incorrect answers. Thus it could well be argued that the boy initially does not know geometry but that he is brought to know it by Socrates' questions. Furthermore, even if we waive this objection and grant that Meno's slave knew geometry even while he was in his cradle, there would still remain an important difference between his knowledge and our alleged knowledge of linguistic rules. In the Meno, Socrates gets the boy to see geometric truths merely by questioning him. He does not tell the boy anything about geometry. We thus get the feeling that Socrates is pulling knowledge out of the boy rather than putting it into him. It is obvious, however, that linguistic rules are not normally brought to consciousness by a process of Socratic questioning. Moreover, it would seem that most of the rules that have been proposed by Chomsky and his followers could not be brought to consciousness in this way. Thomas Nagel may be right in claiming that certain very simple rules, such as the rule for forming regular plurals in English, could be elicited from a speaker simply by asking him the right questions.<sup>12</sup> But it seems clear that nothing so complicated as the relative clause rule, much less the rules of universal grammar, could be elicited by any process of questioning.

Finally, the claim that the empiricist is "biased" against unconscious knowledge of general principles appears to be completely without foundation. Up to this point in his discussion, Katz has given no good reason for believing that we have unconscious knowledge of linguistic rules. Indeed, as we have seen, he has not even claimed to have given a reason for believing that we have such knowledge. It seems to me that Katz's allegation of "bias" is a manifestation of the unfortunate tendency of some linguists and philosophers to assume that doubts about Chomsky's doctrines can only be based on unreasonable empiricistic preconceptions.

## III

Toward the end of his discussion of unconscious knowledge Katz advances an argument for the conclusion that such knowledge must, after all, be ascribed to all speakers of the language. The crux of his position is summed up in the following passage ". . . if supposing that someone knows a rule is the only way to explain how he can judge intuitively in the manner that he does, then he knows the rule, and if he doesn't know it consciously, then we must suppose he knows it unconsciously, that is, has tacit knowledge of it." (p. 28) Katz maintains that a speaker's intuitive knowledge that sentences are grammatical, ungrammatical, ambiguous, etc can only be explained on the hypothesis that he has knowledge of the rules of his language. This inference from intuitions about particular sentences to knowledge of general rules is, according to Katz, "just a special case of the standard form of scientific inference from observable effects to unobservable causes." (p. 28) In support of the claim that a speaker's intuitions are to be explained on the hypothesis that he has unconscious knowledge, Katz quotes an argument of Fodor

"If machines and organisms can produce behavior of the same type and if descriptions of machine computations in terms of rules, instructions, etc., that they employ are true descriptions of the etiology of their output, then the principle that licenses inferences from like causes to like effects must license us to infer that the tacit knowledge of organisms is represented by the programs of the machines that simulate their behavior" (p. 28)<sup>13</sup>

The crux of this argument, Katz tells us, is that "the formal rules of the grammar utilized in the computations of the machine have real counterparts in the causal processes going on in the heads of speakers." (p. 29) To summarize. Katz maintains that we must assume unconscious knowledge in order to explain the intuitions of speakers, and he argues for the correctness of this explanation by alleging

a parallel between the behavior of human speakers and the output of machines programmed with linguistic rules

It seems to me that Fodor's argument does not establish the conclusion Katz wishes to draw. We are told that we can infer a speaker's knowledge of rules by way of "the principle that licenses inferences from like causes to like effects." The conclusion which this principle is supposed to license is that the speaker has unconscious knowledge of linguistic rules. In order for the principle to license this conclusion, however, we would have to take it as a premise that the machine has knowledge of the rules. This is obviously absurd, and we can hardly avoid the absurdity by saying that the machine's knowledge is "unconscious." In short, Fodor's principle yields the conclusion he wants only on the assumption of a false premise.

Fodor's argument does, however, suggest an explanation of the speaker's linguistic intuitions which is better than the one proposed by Katz. The machine does not know any rules, but it does have an internal mechanism which generates certain sentences. If we are to reason "from like causes to like effects," the conclusion we ought to draw is that the speaker also has an internal mechanism which generates his linguistic intuitions. But from the premise that the speaker has such a mechanism, the output of which is described by the rules of his language, it does not follow that the speaker knows the rules--even unconsciously.

#### IV

This paper has been devoted almost entirely to finding flaws in Katz's arguments. It might therefore be objected that even if everything I have said is correct, I would not have refuted the unconscious-knowledge hypothesis but would only have shown that Katz has failed to establish its truth. To meet this objection I want to conclude by sketching an argument which seems to me to show that the hypothesis ought not to be accepted.

Notice that I said 'ought not to be accepted' rather than 'is false'. The distinction is important here because, if I am right, the problem with the unconscious-knowledge hypothesis is precisely that there is no way of showing it to be false.

A classic example of a pseudo-explanation is the case in which someone attempts to "explain" the sleep inducing properties of a certain drug by saying that the drug possesses a dormitive virtue. It is clear that in this case we want to say that no genuine explanation has been provided. But what, precisely, is the problem here? It will not do to say that the proposed explanation has no empirical consequences whatsoever, for the defenders of dormitive virtue could reply that a consequence of the hypothesis that something has the dormitive virtue is that people who take it tend to feel sleepy. The trouble with the dormitive-virtue hypothesis seems to be, rather, that it has no empirical consequences other than those which it is supposed to explain. It seems, then, that in order to rule out this sort of explanation we must adopt some principle such as the following: Let  $\{O_1, \dots, O_n\}$  be a consistent set of observation sentences, let H be a hypothesis allegedly explaining  $\{O_1, \dots, O_n\}$ , let T be our presently-accepted scientific theory of the world, and let T' be the conjunction of T with H, then H is an adequate explanation of  $\{O_1, \dots, O_n\}$  only if T' entails at least one observation sentence which is not entailed by T and which also is not entailed by the conjunction of  $O_1, \dots, O_n$ .<sup>14</sup> (The reference to theories accomodates the fact that, strictly speaking, what has empirical consequences is not the hypothesis taken by itself but the conjunction of the hypothesis with current scientific theory. Nevertheless, it is briefer, and not, I think, seriously misleading, to speak of "the consequences of a hypothesis" without alluding to the theory in which the hypothesis is included. Hence I shall continue to use this expression in what follows.)

The problem with the unconscious-knowledge hypothesis is that it appears to be at odds with this principle. For, what empirical consequences does

this hypothesis have other than the facts of language acquisition and linguistic performance which it is supposed to explain? One might think that a hypothesis ascribing knowledge to people would have consequences with regard to their behavior. However, the claim that the knowledge in question is unconscious has the effect of cancelling many of the expectations which we would otherwise have had as to its behavioral consequences. Thus we are not, for example, entitled to expect that a speaker's knowledge of the rules will, under certain circumstances, result in his asserting that the rules describe his own grammatical intuitions. Moreover, it would appear from Katz's discussion that we cannot even expect the kinds of behavioral consequences which follow from claims to unconscious knowledge made by psychologists. As we have seen, Katz explicitly denies that the unconscious knowledge of the psychologist is of the same kind as the unconscious knowledge posited by the linguist. It would appear, then, that so far as behavior is concerned, the hypothesis that speakers have unconscious knowledge of linguistic rules has no empirical consequences beyond those it is supposed to explain.

It might be thought that the empirical consequences of the unconscious-knowledge hypothesis have to do not with the speaker's behavior but with the states of his brain. According to this suggestion, the hypothesis would predict that there are certain kinds of neural structures inside the speaker's head. It might be argued, for example, that we should expect to find one part of the brain in charge of the phrase-structure component of the grammar and another part in charge of the transformational component. This suggestion, however, is open to two serious objections. In the first place, it is highly dubious that mental states such as knowledge can be correlated with brain states in such a way as the suggestion requires. I shall not go into the issue here, but the point has been argued forcefully elsewhere.<sup>15</sup> Secondly, even if the needed correlations could be made, all that would have been shown is that the unconscious-knowledge hypothesis has the same empirical consequences as another hypothesis, namely the hypothesis which simply asserts that the speaker's nervous system has those structures, whatever they are, whose existence is supposed to

follow from the hypothesis of unconscious knowledge. Given the present state of our ignorance, this second hypothesis would have to be quite vague.<sup>16</sup> One might even argue that it would be so vague as to be practically useless. In any event, the point is that whatever empirical consequences might be thought to follow from the hypothesis of unconscious knowledge would also follow from the straightforward neurological hypothesis. Since the empirical content of the hypotheses would then be identical, and since the meaning of the second hypothesis is so much clearer than that of the first, the proper course for the linguist would be to abandon the unconscious-knowledge hypothesis in favor of the hypothesis about neurological structures.

In summary, it seems that the defenders of unconscious knowledge are faced with a dilemma: Either their hypothesis has no empirical content at all, in which case unconscious knowledge is the dormitive virtue of linguistics, or else the hypothesis ought to be rejected in favor of a more modest hypothesis concerning the structure of the speaker's nervous system.<sup>17</sup>

#### APPENDIX

The presentation of my paper led to some spirited discussions with other participants in the conference. In this Appendix I want to discuss some of the issues that arose in those discussions.

Objection 1: To deny the reality of competence is to deny the obvious. There can be no doubt that speakers have the ability to distinguish grammatical from ungrammatical sentences, to spot ambiguities, and so forth.

Reply: This objection overlooks the fact that, when Chomsky speaks of competence, he has in mind not the speaker's linguistic abilities and intuitions, but the unconscious knowledge of linguistic rules which is supposed to explain those intuitions. As the discussion in this paper has shown, the reality of such knowledge is anything but obvious.

Objection 2 We need the competence-performance distinction in linguistics. To reject this distinction is to go back to the bad old days in which linguists concerned themselves only with the externals of speech behavior without allowing for the complex grammatical rules which underlie such behavior.

Reply This objection seems to assume that the only alternative to accepting what Chomsky says about competence is a return to a radical behaviorism which rejects all innate structures of any complexity. But this view of the matter is too simple. We can agree with Chomsky that any adequate account of linguistic phenomena must posit complex innate structures without agreeing that a speaker has any knowledge of linguistic rules. In this way we would have steered a course between the Scylla of behaviorism and the Charybdis of unconscious knowledge.

Objection 3 The points made in this paper are irrelevant to linguistics. Whether or not we choose to speak of unconscious knowledge will make no difference whatsoever to how linguists go about their business.

Reply Of course the linguist can always take the attitude that he is just going to do his work and not bother about "irrelevant" methodological or philosophical issues. Such an attitude, however, would be an odd one for a follower of Chomsky to take. One of Chomsky's major contributions has been to show the danger of just grinding out "results" without stopping to wonder what the results mean or whether they are of any importance. Research in any discipline is always guided by, and interpreted in the light of, the methodological presuppositions of that discipline. And the assumption that there is such a thing as competence is one of the fundamental presuppositions of contemporary work in linguistics.

Objection 4 It might be possible to bring certain rules to a speaker's consciousness in a manner which did not involve teaching him the rules. If this were done, then surely it would be reasonable to say that the speaker had known the rules all along.<sup>18</sup>

Reply: Granted. If the rule is a simple one, such as the rule for forming regular plurals, knowledge of it may reasonably be ascribed even to speakers with no training in linguistics. But such simple rules are completely different from most of the rules which would be included in a generative grammar.

It might be tempting to press the objection by suggesting that even the most complicated rules might be brought to consciousness by some elaborate process of questioning, reinforcement of certain responses, and so forth. It would seem, however, that the more elaborate such a process was, the less plausible it would be to say that the rules which it brought to consciousness were rules which the speaker knew (unconsciously) all along.

## NOTES

<sup>1</sup>Chomsky (1965:3-9)

<sup>2</sup>See the papers by Harman and Stich, and several of the papers in Hook.

<sup>3</sup>Katz's discussion covers pp. 24-29. Page references in the text are to Semantic Theory.

<sup>4</sup>Chomsky (1965:4).

<sup>5</sup>Chomsky (1965:3-9).

<sup>6</sup>Hook (86).

<sup>7</sup>Hook (87, 153).

<sup>8</sup>Hook (86).

<sup>9</sup>Katz cites Harman's 1967 paper as well as his contribution to the Hook volume.

<sup>10</sup>Chomsky (1972:72).

<sup>11</sup>Hook (86-87).

<sup>12</sup>Hook (175).

<sup>13</sup>Katz is quoting from Fodor (1968 640).

<sup>14</sup>Note that all my argument requires, and all that I am claiming, is that this is a necessary condition for the adequacy of an explanation.

<sup>15</sup>See the paper by Goldberg.

<sup>16</sup>This was pointed out to me by Victoria Fromkin.

<sup>17</sup>I would like to thank Victoria Fromkin and James McCawley for stimulating comments which incited me to write this fourth section as well as the following appendix

<sup>18</sup>This point was raised by James McCawley.

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