WHAT EVERY SPEAKER KNOWS

I

THE QUESTION I hope to answer is brief : What does every speaker of a natural language know? My answer is briefer still : Nothing, or at least nothing interesting. Explaining the question, and making the answer plausible, is a longer job.

Speakers are people and people know all sorts of things. But my concern here is with what speakers know qua speakers. What I would deny is that there is any knowledge all speakers of a language must have. At crucial points the argument will turn on the example of people lacking one or another sort of knowledge. These people need be neither eloquent nor reflective. What is essential is that their lack of knowledge does not disqualify them as competent speakers.

At first blush my thesis seems absurd. A competent speaker of English knows how to speak English; a competent speaker of Tagalog knows how to speak Tagalog. In general, to be a competent speaker of a language is simply to know how to speak the language. With this I could hardly quarrel. It is not this sort of knowledge I claim speakers lack.

Philosophers commonly distinguish between knowing *how* (for example, knowing how to ride a bike, or how to do arithmetic, or how to speak French) and knowing *that* (for example, knowing that $7 + 5 = 12$, or that it has been more than sixty years since the last major earthquake along the St. Andreas Fault). The distinction is not entirely unproblematic. Knowing how is related to knowing that in ways which have yet to be thoroughly explored. We will look at some of these ways in what follows. But I think the distinction is sufficiently clear-cut for present purposes. And, of course, it is knowledge *that* that I would deny speakers have.

According to Chomsky, competence is "the speaker-hearer's knowledge of his language,"[1] and grammar is the study of the

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[1] Noam Chomsky, *Aspects of the Theory of Syntax* (Cambridge, Mass., 1965), p. 4. Hereafter cited as *Aspects*.

speaker-hearer's competence. So it might be thought that to defend the view I am advancing I must attack the study of grammar as absurd. If grammar studies the speaker-hearer's knowledge of his language, then, if I am right in claiming he has no such knowledge, grammar studies nothing.

I am not, however, concerned to attack the reasonableness of doing grammar. Rather, what I would challenge is Chomsky's account of grammar as the study of competence. The battle has two fronts. On one I will try to show that the concept of knowledge has no place in an account of the relations between the speaker and the several facts the linguist uncovers. On the other I offer an alternative account of the linguist's doings making no appeal to knowledge or competence. While the two are fundamentally interdependent, the present essay concentrates on the issue of knowledge. In another paper, my emphasis is reversed.[2] To get on with our current concerns, however, it will be necessary to give a sketch of the view of grammar I want to defend.

II

A grammar is a theory. The grammarian's principal data are the judgments speakers make about expressions—judgments, for example, that expressions are or are not grammatical sentences, that sentences are ambiguous, that pairs of sentences are related as active and passive or as simple declarative and yes-no or wh-questions, and a host of others. Roughly speaking, the grammarian tries to build a theory which will entail that expressions have the properties speakers judge them to have. If a grammar is to be an adequate theory of the language of a speaker it must entail that an expression has a given grammatical property if the speaker would judge the expression to have the property.

This brief account must be modified in several directions. First, speaker's judgments are not the only data a grammarian may use. Data about what a speaker does and does not say in unreflective speech, data about pronunciation peculiarities, and a host of other phenomena may also be taken into account. Also, a

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[2] "Grammar, Psychology and Indeterminacy," in preparation.

grammar is an *idealized* theory. The grammarian will systematically ignore certain discrepancies between what his theory says of some expressions and what the speaker says of the same expressions, much as, in the theory of ideal gases, we systematically ignore deviations between predicted correlations of temperature, pressure, and volume and observed correlations. In both cases the motive is much the same—the expectation that construction of a complete theory which *accurately* describes all the phenomena is best approached by breaking the job into several parts, first giving the idealized theory, then explaining the deviations.

There is a third respect in which our brief account of grammatical theory is misleading. Grammaticality, ambiguity, being a noun phrase, and so forth are theoretical properties of expressions. Being related as active and passive or as simple declarative and wh-questions are theoretical relations. Expressions in a language have these properties and share these relations if they are said to have them by the correct grammar of the language. To be grammatical is to be classified as grammatical by a correct grammar. And a grammar is the correct grammar of a language if it is the best grammar that accounts for all the data and meets certain further constraints imposed by a general theory of grammar.[3] But if this is correct, it seems odd to say that speakers judge expressions to be grammatical sentences, subject of a given sentence, related as active and passive, and so forth. For these judgments could be reasonably justified only after painstaking construction of a grammar. So it would appear that if the judgments that are the grammarian's data are judgments about grammaticality and other grammatical properties and relations, they are judgments that demand justification not available to the ordinary speaker. A virtue of the account to be given is that it dissolves this apparent paradox.

Commonly a grammar will consist of a set of *rules* (phrase structure rules, transformational rules, and perhaps some others) and a set of *definitions*. By themselves the rules state nothing. The rules entail statements only when conjoined with the definitions.

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[3] These remarks are unhappily *ex cathedra*. For a fuller explanation and defense, cf. my "Grammar, Psychology and Indeterminacy."

The definitions will define such terms as "*S* is generated by the rules," "*e* is the subject of sentence *S*," "*S* and *S** are related as active and passive," and many others.[4] The definitions and rules entail a variety of statements. They entail many of the form :

S is a grammatical sentence

where "*S*" is replaced by the name of an expression; many of the form:

e is the subject of sentence *S*;

many of the form:

Sentences *S* and *S'* are related as active and passive,

and so forth. It is these consequences of the rules and definitions that must agree with speakers' judgments. The rules and definitions form an integrated empirical theory, and both rules and definitions may be modified in the face of recalcitrant data.

The grammarian's theory construction does not stop with a grammar. Having made some progress at grammars for several languages, he turns his attention to linguistic theory, or the theory of grammars. Here the goal is to discover linguistic universals, general features of the grammars of human languages. These universals may be general constraints on the form of grammars— that all have a phrase structure and transformational component, say, or that all use transformations only of a specified sort. The universals may also include particular rules or definitions which are the same in the grammar of every language. If any rules or definitions are universal they need no longer be specified along with the more idiosyncratic details of individual grammars.

The linguistic theory is also concerned with the acquisition of grammar—how a person comes to have the grammar he does. Here the strategy is to find a function ranking humanly possible grammars. The goal is to find a function which ranks highest among

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[4] Cf. Noam Chomsky, "On the Notion 'Rule of Grammar,' " *Proceedings of the Twelfth Symposium in Applied Mathematics*, vol. 12 (Providence, R. I., 1961). Exactly which relational terms are defined among all those that might be defined is itself a matter of some empirical import. Cf. *Aspects*, sec. 2.2.

the humanly possible grammars that grammar which the child actually acquires, when we first exclude from the class of humanly possible grammars all those that are incompatible with the observed utterances and other data available to the child. Specification of linguistic universals and a measure function of the sort described would provide a (low-level) explanation of how the speakers of a language come to have the grammar they do.

III

These are the two sorts of theories the grammarian constructs. If the theories are correct they will correctly describe certain facts about speakers' linguistic intuitions (for grammars) and certain facts about all human grammars (for linguistic theory). About what aspects of these theories might speakers be thought to have propositional knowledge?

There are, it appears, three alternatives. First, it might be thought that speakers know the linguistic universals, that they know (perhaps innately) that all human languages have phrase structure and transformational rules, or that the grammar of every language contains the rule $S \rightarrow NP + VP$, or that in every language an expression is a noun phrase if and only if . . . . In short, this first suggestion is that speakers know that p, where "p" may be replaced by some statement belonging to linguistic theory.

Next it might be held that speakers know that the particular rules of the grammar of their language are rules of the grammar of their language, or that they know the definitions which, along with the rules, constitute the grammar of their language. If this proposal is correct, then English speakers know that $NP \rightarrow Det + Adj + N$ is a rule of the grammar of English, that $NP_1-Aux-V-NP_2 \Rightarrow NP_2-Aux + be + en-V-by + NP_1$ is a (transformational) rule of English and that a sequence is generated by the rules of English if and only if . . . .[5]

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[5] The definition of generated sequence might not belong to the grammar of English but to linguistic theory. In that case the claim that English speakers know it would be a claim of the first sort, not the second. Here and throughout the examples are meant only as illustrations. It is irrelevant to the arguments that the examples are most likely incorrect. It is assumed, however, that a

Third, and most plausibly, it might be thought that speakers have propositional knowledge of the consequences of the rules and definitions of their grammar. If this suggestion is correct, then speakers of English will know that "Mary had a little lamb" is grammatical, that "Mary" is its subject, that "Flying planes can be dangerous" is ambiguous, and so forth.

I want to argue that speakers, qua speakers, do not have knowledge of any of these three sorts.[6] But before doing so, it may be of some value to paint faces on my straw men. Chomsky's face comes first to mind. And he has surely been taken to hold each of these three views by both critics and admirers. Yet it is surprisingly difficult to find passages where Chomsky unambiguously commits himself to any one of them. Happily, there are other writers who are less elusive opponents.

Gilbert Harman, in attacking Chomsky's doctrine of tacit knowledge, writes :

speakers of a language do have something that might be thought of as tacit knowledge about the language. Thus speakers can be brought to judge that certain sentences are ambiguous, that certain sentences are paraphrases of each other, or that certain strings of words are not grammatically acceptable. . . . But notice that this sort of intuitive or unconscious knowledge is not the knowledge of particular rules of a transformational grammar. It is, as it were, knowledge about the output of such a grammar.[7]

So on Harman's view speakers do have knowledge, albeit intuitive or unconscious knowledge, of the third sort lately distinguished. They know certain sentences are ambiguous, certain strings are grammatically acceptable, and so forth.

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correct grammar and linguistic theory will be, in general outline, analogous to the approximations that are current coin. Without this assumption our argument could hardly begin. If we have no idea what correct linguistic theory and grammars are like we will not know whether their principles and rules are known.

[6] Perhaps this is the place to make amends for my initial rhetorical enthusiasm. In maintaining that speakers know nothing interesting it is these three alleged cases of knowledge I have in mind.

[7] Gilbert H. Harman, "Psychological Aspects of the Theory of Syntax," *The Journal of Philosophy*, 64 (1967), 81.

In a similar vein, Thomas Nagel maintains that "the exercise of the [linguistic] capacity involves *beliefs* : for example, that a certain combination of words is, or is not, a sentence of the language."[8] And from the remainder of Nagel's paper it is clear that he holds speakers not only to believe that certain combinations of words are sentences but also to know it.

One further example. Robert Schwartz, in considering certain regularities in the formation of nominalizations, holds that the speaker "might be said to 'know' this regularity but only in the sense that he knows that certain strings are sentences and that he knows that nominalizations of some of these strings are also sentences whereas other attempted nominalizations are not."[9]

This knowledge claim is surely the most plausible of the three. So it is all the more surprising that Chomsky embraces it only obliquely. In his earlier work he often begins with an assumption that, at least in many cases, we know which strings are grammatical and which are not. For example : "We shall limit ourselves to English and shall assume intuitive knowledge of English sentences and non-sentences."[10] Again : "For the purposes of this discussion . . . suppose that we assume intuitive knowledge of the grammatical sentences of English."[11] But these remarks are weaker than the knowledge claims that are our present concern. To strengthen them it would have to be asserted that we make these assumptions because we have the knowledge in question, and have it not in our capacity as linguists, but merely in our capacity as speakers of English.

In *Aspects* Chomsky is much concerned with a speaker's intuitions about his language. He holds that we have these intuitions even when we are not aware of them; indeed, that we may have intuitions that a sentence is, say, ambiguous, although when we reflect about the sentence we detect no ambiguity. A speaker can

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[8] Thomas Nagel, "Linguistics and Epistemology," in Sidney Hook (ed.), *Language and Philosophy* (New York, 1969), p. 174.

[9] Robert Schwartz, "On Knowing a Grammar," in Hook (ed.), *op. cit.*, p. 185.

[10] Noam Chomsky, "Three Models for the Description of Language," *IRE Trans. on Information Theory*, IT-2, 1956.

[11] Noam Chomsky, *Syntactic Structures* (The Hague, 1957), p. 13.

sometimes be made aware of the ambiguity by citing related examples or paraphrases.

> In bringing to consciousness the triple ambiguity of (5) ["I had a book stolen"] in this way, we present no new information to the hearer and teach him nothing new about his language but simply arrange matters in such a way that his linguistic intuition, previously obscured, becomes evident to him [*Aspects*, p. 22].

So presumably even before we brought the fact to consciousness the speaker intuited that the sentence was three ways ambiguous. Elsewhere Chomsky had equated "linguistic intuition" with "tacit competence" (*Aspects*, p. 27). And competence, as we have seen, is knowledge. So we may perhaps infer that Chomsky would hold the speaker to know that (5) is ambiguous before its ambiguity was brought to consciousness.

Clear advocates of the view that speakers know that a given rule is a rule of the grammar of their language are hard to find. To Nagel "it seems obvious that we can speak of linguistic knowledge whose object is not merely the grammaticality or meaning of a particular utterance, but something more general."[12] This "something more general" is "general knowledge of a rule of a language."[13]

Among Chomsky's critics, some have taken him to hold that speakers know the grammar of their language to contain certain rules. Thus Harman claims Chomsky "takes a grammar to describe competence as the knowledge that the language is described by the rules of the grammar."[14] Later he charges that "Chomsky sometimes speaks as if a speaker-hearer . . . knows (unconsciously) the grammatical rules of his language, although in fact typically only a linguist . . . would know what these rules are."[15]

Chomsky himself is less explicit. He does say the speaker has "mastered" the rules of his grammar (*Aspects*, pp. 4, 8), that the rules have been "internalized" (*Aspects* pp. 8, 24), and are

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[12] Nagel, *op. cit.*, p. 175.
[13] *Ibid.*
[14] Harman, *op. cit.*, p. 75.
[15] *Ibid.*, p. 79.

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"internally represented" (*Aspects*, pp. 25, 46). And it might be argued that one could not master a rule of grammar unless one knew (even if unconsciously) that it was a rule.

In certain passages Chomsky unequivocally claims speakers have knowledge of the first sort we have distinguished.

A theory of linguistic structure that aims for explanatory adequacy incorporates an account of linguistic universals, and it attributes tacit knowledge of these universals to the child [*Aspects*, p. 27].

A consideration of the character of the grammar that is acquired, the degenerate quality and narrowly limited extent of the available data, the striking uniformity of the resulting grammars, and their independence of motivation and emotional state, over wide ranges of variation, leave little hope that much of the structure of the language can be learned by an organism initially uninformed as to its general character [*Aspects*, p. 58].

And if the organism is not *initially un*informed, it must be innately *in*formed.[16]

Yet there are passages in which Chomsky seems to draw back from this view.

Note that we are again using the term "theory"—in this case "theory of language" rather than "theory of a particular language"—with a systematic ambiguity, to refer both to the child's innate predisposition to learn a language of a certain type and to the linguist's account of this [*Aspects*, p. 25].

So perhaps it is only the linguist who, strictly speaking, knows the principles of the theory. The child is merely predisposed to learn the sort of language the linguist's theory says he will learn in the particular environment in which he is placed.

IV

This last observation proves a convenient place to begin our consideration of what speakers know. It points to a crucial distinction between a theory correctly describing some disposition or

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[16] This observation is due to Nagel, *op. cit.*

characteristic of a person or object and the person or object knowing the theory. A theory might well give a perfectly accurate account of, say, how a child's body is predisposed to develop under a wide variety of prenatal and childhood environments, yet be unknown to the child. Conversely, one may well know the principles of a theory without being part of its subject matter. And, of course, there may be a theory which is both descriptive of some aspect of a person and known to him. Knowing a theory and being described by a theory are quite distinct.

Now it seems generally agreed that both a grammar and a linguistic theory *are* theories; a grammar a theory of linguistic intuition, a linguistic theory a theory describing a child's predisposition to acquire the intuitions which are specified by one or another grammar. Saying this leaves open the question of whether, in some sense, the child may be said to know the linguistic theory or the speaker to know the grammar.

How are these questions to be answered? They are not in a straightforward way questions about the nature of the relation between speakers and the various facts (or propositions) of grammar and linguistic theory. These relations we have sketched earlier. What is at issue is whether these relations are illuminatingly viewed as instances of *knowledge*, whether the concept of knowledge is appropriate in describing these relations. These are typically philosophical questions. To answer them we must ask whether there are any significant similarities or dissimilarities between the cases in question and unproblematic cases of knowledge. If there are significant *dis*similarities we must ask whether the attribution of knowledge is nonetheless called for by some special feature of the situation, whether failure to attribute knowledge would leave something unexplained or whether attribution of knowledge would account for something otherwise unaccounted for. In the presence of substantial dissimilarities and the absence of such extenuating circumstances, the concept of knowledge will be inappropriate.

With this in mind, let us attend first to the claim that children know a linguistic theory. Are there any striking dissimilarities with unproblematic cases of knowledge? Clearly there are many. Commonly when a person knows that p he has occasionally

reflected that *p* or has been aware that *p*; he will, if inclined to be truthful and otherwise psychologically normal, assert that *p* if asked. More basic still, he is capable of understanding some statement which expresses what he knows. Yet for the propositions of linguistic theory none of this need be true. People—exempting a few linguists—have never been aware of the facts of linguistic theory; they are incapable of recognizing them when presented. Many would be incapable of understanding them. And some, though competent speakers, are intellectually incapable of ever coming to understand them. If, nonetheless, people *know* the propositions of linguistic theory, it is surely an unusual case of knowledge.

Now in those passages where Chomsky does attribute knowledge of linguistic theory to the child, he is careful to deny that the knowledge is anything more than tacit or implicit. But, having agreed that a linguistic theory is a theory about certain predispositions of the child, what does it add to say the child knows the theory? As far as I can see, the answer is : nothing. The added assumption of implicit knowledge explains nothing left unexplained by the theory *sans* assumption. The evidence that would confirm or disconfirm a particular linguistic theory remains the same with or without the assumption. The situation seems completely analogous to a theory describing the trajectory of projectiles. Such a theory specifies the disposition of projectiles to take one path or another dependent on a variety of initial conditions. Here too one might consider attributing implicit knowledge of the theory to the projectile. It would, of course, be an odd case of knowledge, markedly dissimilar to less questionable cases. Further, nothing not already accounted for would be accounted for by the imagined attribution. Surely good sense sharpened by Occam's Razor would consider it absurd to attribute knowledge of the theory to the projectile. The same conclusion seems unavoidable for linguistic theory.

In Chomsky's writings there is, I think, only one strand of argument that might be construed as a defense of the attribution of knowledge of the linguistic theory to the child. This is the historical claim that it is just this sort of predisposition—the predisposition to acquire knowledge of a certain kind—that the

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classical Rationalists meant to denote by the phrases "innate ideas" and "innate knowledge." To this I have three brief replies. First, in what follows I shall argue that the predisposition a linguistic theory describes is not a predisposition to acquire *knowledge*, at least not propositional knowledge. Second, even granting Chomsky's claim, it is not clear that such a historical claim would establish that the relation between child and theory is knowledge. As Zeno Vendler has argued persuasively, philosophers often take a familiar word like "cause" or "effect" and attach to it a sense, indeed even a syntax, quite disparate from its sense in common discourse.[17] There is reason to suspect this is the case with the Rationalist's use of "knowledge" in "innate knowledge." If this proves to be the case, then even if Chomsky's historical claims are correct, they would not speak to the issue that occupies us here. My concern is with knowledge commonly so called. At best Chomsky and I would be talking at cross purposes. Finally, in the previously cited paper Nagel contends, to my mind convincingly, that the sort of propositions alleged to be innately known by the Rationalists were significantly different from the propositions of a linguistic theory. The Rationalists were concerned with innate knowledge of necessary truths, knowledge of propositions which provided an "epistemologically unassailable foundation"[18] for our further knowledge, propositions whose opposite is unimaginable. None of this is appropriate to linguistic theory. Its propositions are, if true, contingently true. Appeal to Rationalist doctrine provides no justification for calling the relation between the child and the correct linguistic theory "knowledge."

V

What, now, about the rules and definitions of a particular grammar? Does a speaker of the appropriate language know these? (Curiously, it is always the rules that are said to be known, internalized, or represented, never the definitions. Yet both rules

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[17] Cf. Zeno Vendler, "Effects, Results and Consequences," in *Linguistics in Philosophy* (Ithaca, N. Y., 1967).

[18] Nagel, *op. cit.*, p. 180.

and definitions are an integral part of a grammar. Changing the definitions will change the grammar just as surely as will changing the rules.)

The situation seems analogous to that for linguistic theory. A grammar is a theory, albeit an idealized one, describing speakers' linguistic intuitions. The relation between the speaker and the grammar is, in some striking ways, dissimilar to unproblematic cases of knowledge. Speakers need never be conscious of the rules or definitions; they do not recognize correct rules. A man may be a competent speaker while lacking the conceptual background or even the intellectual ability to understand a correct grammar if it is presented to him.

Are there any extenuating circumstances, any facts which justify the attribution of knowledge in spite of the evident dissimi-larities to more standard cases of knowledge? Nagel suggests that there are. As he points out, the mere fact that we may never have been consciously aware of what the rules of our grammar are does not refute the view that we know what they are. In at least one other domain, psychoanalysis, there are abundant examples of unconscious belief and knowledge (as well as unconscious motives and so forth). But, Nagel recognizes, analysts must be careful in attributing unconscious knowledge of the psychoanalytic sort.

The ascription of unconscious knowledge, or unconscious motives for that matter, does not depend simply on the possibility of organizing the subject's responses and actions in conformity with the alleged unconscious material. In addition, although he does not formulate his unconscious knowledge or attitude of his own accord, and may deny it on being asked, it is usually possible to bring him by analytical techniques to *see* that the statement in question expresses something that he knows or feels. That is, he is able eventually to acknowledge the statement as an expression of his own belief, if it is presented to him clearly and in the right circumstances. Thus what was unconscious can be brought, at least partially, to consciousness. It is essential that his acknowledgment *not* be based merely on the observation of his own responses and behavior, and that he comes to recognize the rightness of the attribution from the inside.[19]

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[19] Nagel, *op. cit.*, pp. 175-176.

Here Nagel is confronting just the problem we have raised. The subject and the analyst may both be convinced that the subject's behavior can be organized in conformity with the assumption of the alleged unconscious knowledge. Similarly, the grammarian and the informant may both be convinced that a certain grammar describes the informant's intuitions. But in neither case is this enough to ascribe unconscious knowledge. There must be some further fact which the ascription of unconscious knowledge can help to explain. In the psychoanalytic case, it is the recognition "from the inside" that indicates we are dealing with unconscious knowledge.

But what is the analogue in the case of grammar? What is left unexplained if we assume the grammar merely describes the speaker's intuitions, and that in coming to know the rules of the grammar the linguist and the speaker are on a par—both must probe the speaker's intuitions? Nagel's answer is that for grammatical rules too there is an *ah-ha*! *Erlebnis*, a recognition from within.

[W]e may observe that accurate formulations of grammatical rules often evoke the same sense of recognition from speakers who have been conforming to them for years, that is evoked by the explicit formulation of repressed material which has been influencing one's behavior for years.[20]

I dwell on Nagel's remarks because I think they contain an important insight. To attribute knowledge of grammatical rules to speakers, it is not enough that the grammar of which the rules are part accurately portrays the speaker's intuitions. The assumption that the speaker (unconsciously) knows the rules of the grammar must help explain something not already explained if we take the grammar merely as a theory about the speaker's intuitions. All this I applaud. But I think Nagel's claim that there is some explanatory work for the attribution of knowledge to do is plainly false. Anyone familiar with the rules of a modern grammar is all too aware of the fact that, study them as you will, there is no *ah-ha*! *Erlebnis*, no recognition from within. To test the complicated and

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[20] *Ibid.*

abstract system of rules that form part of a generative grammar, one must painstakingly deduce the consequences of the rules and definitions and test them against one's intuitions. At no point is there an "inner recognition" of the rules' correctness.

One final point in connection with knowledge of rules. In a recent paper Jerry Fodor has defended the appeal to tacit knowledge in psychological explanations.[21] Fodor holds that "if X is something an organism knows how to do but is unable to explain how to do, and if S is some sequence of operations, the specification of which would constitute an answer to the question 'How do you X?,' and if an optimal simulation of the behavior of the organism X-s by running through the sequence of operations specified by S, then the organism *tacitly knows* the answer to the question 'How do you X?,' and S is a formulation of the organism's tacit knowledge."[22]

Fodor's view, though thoughtfully defended, is beset by a number of problems. But what is of present interest is that I need not argue these issues here. Competent speakers of a language know how to do many things that those unfamiliar with the language cannot do. They know how to recognize grammatical sentences and distinguish them from ungrammatical strings. They know how to give the passive of a sentence if given the active. The list is easy to continue.[23] But grammatical rules are not rules which tell us how to do these things; they are not rules "specification of which would constitute an answer to the question 'How do you X?' " Given a grammar there is an indefinite number of systems of rules which would tell us how to, say, recognize a sentence the grammar classified as grammatical. Some of these—any of a variety of analysis by synthesis techniques, for example—would make explicit reference to the rules of the grammar. Other possible systems would not. If Fodor is right, the optimal system is tacitly known by the speaker. But these rules are not the rules of grammar.

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[21] "The Appeal to Tacit Knowledge in Psychological Explanation," *The Journal of Philosophy*, 65 (1968), 627-640.

[22] *Ibid.*, p. 638.

[23] This is perhaps too strong. Naïve speakers require some instruction to be able to recognize grammatical sentences, produce passives, etc.

VI

My most radical claim remains to be defended. Do all speakers know that certain strings are grammatical or ungrammatical, ambiguous, actives of specified passives, and so forth? I maintain they do not.

The claim appears paradoxical. Speakers can, after all, distinguish grammatical from ungrammatical strings, identify ambiguities, and so forth. The speaker's ability in these matters guides the grammarian in the construction of his theory. Does not the speaker *know how* to distinguish grammatical from ungrammatical strings by virtue of *knowing that* the grammatical strings are grammatical and the ungrammatical strings are ungrammatical?

We may begin to see what is wrong here by taking a closer look at the relation between knowing how and knowing that. Commonly when someone knows how to do something, he either has or is in a good position to come by knowledge that. For example, consider a Bedouin who knows how to go from the oasis to the village. Further, suppose that the route requires him to turn 30° north by northwest on reaching the wadi. He may never reflect on this turn, but make it quite unthinkingly when he arrives at the wadi. Perhaps he has never raised to himself the question of what direction to turn on reaching the wadi. Nonetheless, under certain circumstances, it would seem natural to say the Bedouin knows that to get from the oasis to the village one must turn 30° NNW. If asked he might be able to answer correctly on a moment's reflection, or perhaps quite spontaneously, with no conscious reflection at all.

There are, however, less transparent cases. Suppose, for example, the Bedouin knew nothing of trigonometry or the points of the compass. Would he still know that you must turn 30° NNW at the wadi? Here, if asked he could not answer. Indeed, he could not understand. There is, I think, a strong temptation to say that in this case he does not know that one must turn 30° NNW.

Note now the similarity to the case of the competent speaker. Given a few examples of grammatical sentences, he can classify further sentences as belonging or not belonging to the list. The

process of eliciting grammatical information from naïve speakers usually consists of providing a few examples, perhaps labeling them as "something you could say," and then asking whether further examples belong on the list. The informant may be able to answer perfectly well yet be quite innocent of the concept of grammaticality. And if we deny knowledge that you turn 30° NNW to the Bedouin, should we not deny knowledge that a sequence is grammatical to the speaker?

Here a sympathetic antagonist might reply as follows : "What you are pointing to is simply an instance of the familiar problem of the opacity of the context 'knows that . . . .' But it does not establish that the speaker has no propositional knowledge. For the Bedouin, though he does not know that you must turn 30° NNW, still has propositional knowledge of a sort. He knows that you must turn *this way* at the wadi, where 'this way' is accompanied by a turn in the appropriate direction. Now this way is 30° NNW, though the Bedouin does not know it. The case is similar to a more familiar one. Jones knows that Richard is a scoundrel. Unknown to Jones, the man in the overcoat is Richard. Jones does not know that the man in the overcoat is a scoundrel. Further, the analogy of grammar with the Bedouin case holds up well. The speaker knows that a given sequence is like the ones presented. He knows that one sequence belongs on the list and another does not. The ones that belong on the list are, of course, the grammatical ones, though he does not know this. Still, he has propositional knowledge —knowledge that specified strings are similar or different in a variety of ways. Indeed, the analogy holds still further. For in both cases there is something perhaps best described as an intuition. The Bedouin intuitively knows that a certain way of turning is correct and intuitively recognizes other turns as wrong. The speaker intuitively knows certain strings to be similar and others to be dissimilar."

This reply is a strong one. Speakers are able to recognize strings as similar or different. Given a few examples they know how to classify others. And knowing how is quite generally associated with knowing that, provided we are careful to describe accurately what is known. The Bedouin may not know that you turn 30° NNW. He does know that you turn *this way*. The speaker need

not know that a string is grammatical. But it seems quite plausible to say he knows that this string is like those others.

Let me begin my criticism of my imagined antagonist by pointing out where we are in agreement. There is no dispute that after being asked about a given sentence or set of sentences a speaker will commonly have propositional knowledge about the sentence or sentences. We agree, too, that care is needed in describing the knowledge that speakers have; naïve speakers may not know that the queried sentence is *grammatical*, though they do know it is similar to certain other sentences.

But if my opponent and I agree on the substance of the speakers' knowledge, we disagree on its *ancestry*. For on his account the knowledge the speaker displays after being questioned by the linguist is knowledge he has had for some time. He gains this knowledge as part of learning language, and carries it with him—tacitly or unconsciously—until it is brought to consciousness by the linguist's probing. What I want to suggest is that the speaker usually comes to know the varied facts he relates to the linguist only on hearing the sentence about which he is being questioned. Much as a person may come to know something about the color of an object by seeing it, or about the taste of a liquid by tasting it, so I maintain he may come to know about the properties and relations of sentences by hearing the sentences.

The distinction that divides my opponent and me is, in general, clear enough. We are ever in the business of acquiring knowledge through perception and reflection. For many, perhaps all, of the propositions we know there was an interval of time during which we acquired this knowledge preceded by an interval of ignorance. My opponent places the time of acquisition of knowledge about particular sentences in childhood; I would maintain we have no such knowledge until we hear the sentence in question.[24] This is not to deny that something relevant to the linguist's doing is acquired during childhood. But, by my lights, what is acquired is not propositional knowledge at all. Rather it is the perceptual and/or cognitive capacity to *acquire* propositional knowledge in

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[24] This is a bit too strong. Seeing a sentence written or saying it to ourselves will suffice.

certain circumstances.[25] People have a multitude of other capacities of this sort. Some, like the capacity to learn about similarities and differences in the color of objects viewed, seem to be largely innate. Others, like the ability to tell the taste of one wine from another, may be largely acquired. What I am suggesting is that grammar is the study of one such capacity and is thus a branch of psychology substantially similar to the study of other sorts of perceptual and cognitive discriminatory abilities.

Let me stress that my disagreement with my imagined adversary is not merely over the question of when a speaker acquires the knowledge he relates to the inquiring grammarian. At issue is the broader question of the nature of grammatical theory. For my opponent grammar is the study of a system of knowledge or belief that speakers acquire in the process of learning a language. Here he is in agreement with Chomsky who has, of late, stressed the importance of the neglected notion of "what is learned"—the "system of beliefs" acquired—to the psychology of learning in general and to language acquisition in particular.[26] On my view grammar is not the study of a body of *beliefs*—the speaker has no such beliefs. He has, rather, the capacity to acquire certain beliefs, to gain new knowledge, on hearing new sentences.

So much for setting out the dispute. Now how are we to settle it? Let me admit right off that my conviction in this matter far outruns my arguments. The business of proffering grammatical judgments simply seems radically unlike recovering buried beliefs and basically similar to making perceptual judgments. This intuition, rather than any argument, is the basis of my conviction. But perhaps I can buttress my conviction with a few brief considerations.

Philosophers have long recognized that perceptual reports and reports of one's own present cognitive state have a very special

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[25] This is surely not all that is acquired by a child when he learns a language. But it is this capacity that the grammarian studies. In earlier drafts of this essay I called the acquired capacity a "quality space." Though I still find the term suggestive, it seems to generate more confusion than illumination.

[26] Cf. Noam Chomsky, "Linguistics and Philosophy," in Sidney Hook (ed.), *Language and Philosophy* (New York, 1969), pp. 61 ff.

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epistemological status.[27] Such reports, though they commonly express something known to the reporter, need no further evidence or justification. The beliefs that these reports express stand at the *end* of chains of evidence we might marshal for other beliefs. They are, to borrow a term from Chisholm, "directly evident."[28] Thus my beliefs that I seem to see a yellow object in front of me and that I seem to remember winning a squash game this afternoon and that there is a dull pain in the small of my back (where I seem to remember having been hit with a squash ball) are all directly evident. Asked to give evidence for any of these beliefs I would be at a loss to reply. As Chisholm would have it, what justifies me in counting it as evident that I seem to see a yellow object (or that I have a dull pain) is simply the fact that I seem to see a yellow object (or the fact that I have a dull pain).

Notice the contrast between long-standing beliefs and beliefs about one's present perceptual or cognitive state. Long-standing beliefs are never directly evident. It is always in order to inquire after the justification a person has for such beliefs. And if a long-standing belief is an instance of knowledge, the belief's proprietor will commonly have evidence or justification.

Now on the view I would disparage, the beliefs speakers express when we inquire after their linguistic intuitions are long-standing beliefs. The speaker acquired them on learning his language. The questioning we subject him to merely brings these beliefs to consciousness—it transforms them from dispositional to occurrent beliefs. But if the beliefs speakers express when we probe their linguistic intuitions are of substantial ancestry, then they are unique among such beliefs. For the beliefs offered to the inquiring linguist are patent cases of directly evident beliefs. Asked for evidence that one of a pair of sentences sounds more similar to a given sentence than does the other, we should be at a loss for an answer. It simply does sound more similar. On the account of intuitions I am defending, however, this is to be expected. For in

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[27] Perceptual reports, as I use the term, are the timid "phenomenological" reports which express how things appear to us without commenting on whether they actually have the properties they appear to have.

[28] Roderick Chisholm, *Theory of Knowledge* (Englewood Cliffs, N. J., 1966), ch. 2.

making perceptual judgments the beliefs we express are always directly evident. If I am presented with two color patches and asked to judge which looks most similar to a third, the reply I give is not open to further justifications. And the belief I express is of recent vintage. The intuitions evoked by linguists are quite parallel. They are directly evident perceptual judgments, not long-standing dispositional beliefs brought to consciousness.

This account disposes nicely of the paradox that troubled us earlier on. To be grammatical is to be classified as grammatical by a correct grammar. And the principal data for constructing a correct grammar are speakers' judgments. But judgments of what? To answer "grammaticality" is to invite paradox. What speakers judge is that queried sentences sound similar to or different from those of some specified set. Such predicates as "is grammatical," "is a noun phrase," "are related as active and passive," and others are predicates of a theory attempting to account for the speaker's capacity to make the judgments he makes.

Like other perceptual judgments, speakers' grammatical judgments commonly express knowledge. But it is knowledge acquired only on presentation of the sentences judged. And, of course, there is no sentence which each competent speaker must have heard or judged. Competent speakers, qua speakers, know nothing.[29]

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