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WASOW ON SCIENTIFIC LINGUISTICS *

The final pages of each issue of *NLLT* have since its inception been given over to the expression of opinion on matters relating to academic linguistics in general and to generative grammar in particular. This editorial practice is novel, and worthwhile: opinions move us at least as much as facts and theories do, and to omit them from the written record of a field is to omit an essential part of its intellectual life. Thomas Wasow's recent contribution now forms a part of that record that is of interest to us and will be to our successors. In recording our thoughts about that contribution, we assume that Wasow's comments accurately reflect his feelings about the profession of which he has been a member for a good many years. However, we wish to call attention to some facts and distinctions that are essential to forming a just opinion on the nature of linguistics and its prospects as a field of inquiry, and that seems to us to have been overlooked or confused by Wasow.

Wasow agrees with Geoffrey Pullum that non-specialists are doubtful that linguistic theory is a chapter of science, and he thinks that their judgment is "quite understandable". In fact, the last paragraph of his article suggests that the non-specialists are not only justified in their skepticism, but also right: linguistics is not a science. The reasons he cites on their side, and on his own, are that linguistics does not show incremental progress; that its data are not objectively verifiable; and that it does not display practical applicability.

On the first point, it is obvious that linguistics has made notable progress since Rask, Bopp, and Grimm in the nineteenth century began their inquiry into the phonetic evolution of the Indo-European languages. We now know much more about this evolution than they did, and what we know is better founded both theoretically and empirically. In syntax the progress has been especially marked since the 1950's, when, chiefly in response to Chomsky's early writings, an ever-increasing number of scholars engaged themselves in the effort to develop a well-articulated theory of syntactic phenomena. Pioneering work in generative grammar has been regularly incorporated and extended as research has progressed. About such topics as anaphora, nominalization, and word-formation, among many others, we know far more today than did Bloomfield in 1933, Chomsky in 1957, or Wasow in 1972.

Why does Wasow doubt incremental progress in linguistic theory? Perhaps he confuses the question whether the various schools of research

^{*} See Topic ... comment: The Wizards of Ling. NLLT 3 (1985), 485-91.

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agree on major theoretical points (which they do not), with the question whether we know more than was known in the recent past (which we do). The former question is a question of agreement; only the latter is a question of progress.

Wasow's second thesis is that linguistic data are not objectively verifiable. He distinguishes two aspects of this thesis, of which the first is that linguistic data are not, as he puts it, "clear and replicable". Now, the data in question are *singular* statements: "X" is (is not) grammatical," or "X" has (does not have) such-and-such a meaning;" hence, "replicable" is not the adjective wanted here. But Wasow's meaning seems clear: it is that what the facts are is often less than obvious, and that even specialists do not agree among themselves (just as Wasow, himself a specialist, disagrees with the other specialists whose judgments he cites in his article).

Wasow also permits himself a further charge, that even specialists "treat the data cavalierly"; and he implies that many of their judgments, including those he cites, are egregiously wrong. This charge, whether correct or not, is not relevant: if a discipline harbors persons who do irresponsible research, then that is a sorry thing, whether the discipline is scientific or not.

We do not think, incidentally, that all examples cited by Wasow on p. 487 are as obviously off the mark as he makes it appear. For instance, the sentence (1):

(1) John received a prize in order to impress his mother.

is significantly different from, say, (2):

(2) John refused a prize in order to impress his mother.

and it is not lack of elementary good sense, or of honesty - as suggested by Wasow - that is shown by the linguist who starred the first, but would not star the second. We mention this matter only because, if the very examples Wasow adduces in support of his charge of lack of objectivity are not wholly successful, the problem is surely less severe than he sees it.

Wasow is certainly right to assert that much of the data we are interested in are unclear, and that there are disagreements that cannot comfortably be laid to differences in idiolect. Why is this? Not for want of data that *are* clear, or about which there *is* agreement. The reason is, rather, that the theoretical questions we want to answer are not, so far as we know, settled by the clear and unobjectionable data. Such is our fate, in common with psychologists, economists, paleontologists, and a host of others. Since that fate is just the heritage of theory, in conjunction with nature's ways, we cannot find any substance in this part of Wasow's discussion.

The second aspect of Wasow's concerns about objectivity is the alleged absence of *convergence* in linguistics. By "convergence," Wasow refers to a rather special phenomenon, exemplified by the varieties of evidence that coalesce in support of evolutionary theory.¹ Wasow's assertion that convergence in his sense is required of science is most eccentric: by this standard, since the data for astronomy were long restricted to light reaching the unaided human eye, there was no scientific astronomy until the invention of the telescope; or perhaps, since the telescope is after all just an extension of our faculties, no scientific astronomy until even more recently.

In any case, Wasow's view is that convergence in his sense was indeed sought in the early days of generative grammar, and that the search was abandoned when experimental psycholinguistic evidence did not lend support to transformational theory. In evidence, Wasow cites an early writing of Chomsky's on the derivational theory of complexity, as suggested by George Miller. Unfortunately, the pasage that Wasow cites does not support his thesis. Chomsky wrote: "Recent studies have sought to explore the ways in which grammatical structure ... enters into mental operations." (ellipsis in Wasow's citation). The obvious interpretation of this statement is that grammatical structure is taken as given, and the question is how *it* (presumed known) enters into "mental operations.". The remainder of the passage, as cited, further supports this interpretation.

Obviously, the possibility of convergence, in Wasow's special sense, is a fine thing. Nothing that Wasow cites tends to suggest that linguists generally, or Chomsky in particular, think otherwise. But since the example from astronomy (for instance) shows that convergence can be a long time coming, it seems bizarre to hold that convergence at this moment is a necessary condition for something called "scientific status". There are some further remarks in Wasow's discussion of data and objectivity; but since these remarks accuse linguists not of being non-scientists with pretensions to science, but simply of doing bad research, we pass over them as not relevant.

Wasow's third major point is that linguistics, unlike other sciences, shows no tendency toward practical applicability. He is willing to concede that it is not a necessary property of a science that it have practical applications. But this, as he perhaps imagines, generous concession, itself hides a failure to distinguish between science as a body of truths or current beliefs, and science as an activity that aims to understand nature. It is in the latter sense, of science as activity, that it is distinguished from technology.

The endeavor to discover how nature works is quite different from that of applying some body of knowledge or techniques to a social or economic purpose. To ask practical applicability from the researcher whose aim is

¹ Wasow does not say which version of evolutionary theory he has in mind. He cites the convergence of "fossil and biochemical evidence"; but even the original support for Darwin's views came from a variety of sources, including the current distribution of animal and plant life, and variability of form as revealed by animal husbandry. A theory of the course of life on earth could hardly do less.

understanding is not to ask for certification of scientific status; rather, it is to ask why the researcher isn't doing something else, instead of, or in addition to, his current work. Otherwise, we should take the view that a person who tends sheep is no true shepherd unless he aims to set himself up in the wool business.²

In sum, Wasow's discussion seems to run together a number of considerations, and to such an extent that it is not clear what vision of science he has, or what thesis he wishes to advance about linguistic theory. But Wasow is of course right to say that many linguists think of themselves as scientists. Why should they care? And what is the significance to them of the *cachet* ''scientific''?

It seems to us that there is indeed a point to our calling ourselves scientists. We acknowledge to ourselves thereby that we can be wrong as well as right; that is, *wrong*, not just lacking in insight. We acknowledge that what we would like to achieve is not to be had by compiling facts, or by working out the implications of styles or schools of thought, but only by coming to know the truth about human language. We acknowledge that a beginning student may see in a second the answer to a question that had puzzled us for years; and we acknowledge that our most cherished theoretical achievements are subject to revision, and will in time be superseded, if we are lucky.

Our monument, we hope, is that we shall be succeeded by persons who know more than we do. If our field should so develop, and if this is not enough for scientific status, then we may take the credit, and let the *cachet* go.

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² Given his remark that linguists "don't know what side their bread is buttered on" and his endorsement of "commercial success" perhaps Wasow actually would take this view. But we assume he would not endorse its natural conclusion, that research devoted to keeping up with the Japanese is the acme of science.