

## A NOTE ON THE CREATIVE ASPECT OF LANGUAGE USE

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In her article "The Creative Aspect of Chomsky's Use of the Notion of Creativity" (*Philosophical Review*, January), Margaret Drach accuses me of having performed "a prestidigitator's trick," of various contradictions, of changing fundamental concepts "without warning or acknowledgement" after they had served their propaganda function, and of numerous other sins. A careful look, however, reveals serious errors of reasoning and gross misreading of the very passages she cites; I will keep to these for the most part, since they suffice to refute her allegations. A few examples follow, but first, a brief review of the theses that Drach considers and an analysis of her basic argument.

One thesis is that:<sup>1</sup>

- (1) "A person who knows a language has mastered a system of rules that assigns sound and meaning in a definite way for an infinite class of possible sentences."

<sup>1</sup>The quotes (1), (2), and (Q) are from my "Form and Meaning in Natural Language," in *Language and Mind*, enlarged edition (New York, 1972). This is identified in the preface as "a rather informal lecture given in January 1969 ...". Virtually all of Drach's reference to *Language and Mind* are, in fact, references to this "rather informal lecture," including all the quotes from this book cited below with the exception of (8). See Drach's article for exact page references for these and other passages cited below.

Note that *Language and Mind* post-dates the "decisive shift" Drach claims to have discovered in my views on the two concepts she discusses: the creative aspect of language use (CALU) and competence. With regard to the CALU, she writes: this "decisive shift ... occurs in *Cartesian Linguistics*" (New York, 1966); and she claims that my "definition of 'competence' underwent a change at about the same time ...". The earliest work from which Drach quotes is "Current Issues in Linguistic Theory," in *The Structure of Language*, ed., J. A. Fodor and J. J. M. Katz (Englewood Cliffs, 1964), henceforth CI. Therefore, the period through which "the concept [of creativity] seems to have run its course," having been used (by implication, dishonestly) to "gather countless repentant behaviorists to the Chomskyan fold," was rather brief: about two years. In fact, as we shall see directly, the elapsed time was null.

This is intended as a first step towards an answer to one central question of linguistics:

- (Q) “What is the nature of a person’s knowledge of his language, the knowledge that enables him to make use of language in the normal creative fashion?”

The “normal creative fashion” of language use involves unboundedness, novelty, freedom from stimulus control, coherence and appropriateness to situations. The word “enables” is to be understood, as Drach correctly observes, in the sense of providing “a necessary, but not a sufficient condition.”

A second thesis is that:

- (2) “We do not understand, and for all we know, we may never come to understand what makes it possible for a normal human intelligence to use language as an instrument for the free expression of thought and feeling.”

A third thesis, this time in Drach’s words, is that:

- (3) There is “some very basic and revealing link between what was being done in transformational linguistics and the ‘creative aspect of language use’ [CALU]; that the latter was (or should be) somehow very intimately related to the concerns of linguistics .... [In Chomsky’s later writings] there runs a persistent suggestion (not to say, at times, an explicit claim) that generative grammar is in some important way concerned with the CALU – in spite of a no less consistent emphasis on its being competence, not performance, that grammar is concerned with.”

Thesis (3) (which, again, is Drach’s formulation) is implicit in (1) and (Q). That is, if knowledge of language is mastery of a grammar, and knowledge of language makes possible the CALU, then some version of (3) is plausible.

But, Drach claims, thesis (2) denies (3), therefore (1) or the presupposition of (Q). She writes: “without any indication that the goal he had set himself, or one facet of the enter-

prise, had not panned out, this verdict: the creative aspect of language use is as much a mystery as it ever was.” This is the “cheating” to which Drach refers: in early work (1964) I had claimed that generative grammar had “made [a] contribution to, or thrown light on” the CALU, but later (1969) I stated that the CALU remains a “mystery.”

We see at once, however, that there is neither contradiction nor deception in these various theses. The CALU does remain a mystery, as stated in (2). The study of grammar attempts to answer question (Q) (*inter alia*) by providing a substantive version of (1). Insofar as it succeeds in this aim, we have an account of the mechanisms that enter into the CALU. In this sense – which has been clear from the outset – the thesis that Drach formulates as (3) is correct: there is an “intimate relation” between the CALU and the “concern of linguistics” to discover the mechanisms of grammar, though of course grammar is concerned with competence; and “generative grammar is in some important way concerned with the CALU.” This remains so even though the CALU remains a mystery (cf. (2)). Evidently, there is no contradiction here. There would be a contradiction if, in Drach’s phrase, “language is what Chomsky says it is – something that is accounted for *in toto* by the rules of transformational grammar,” if the CALU had been “said to be accounted for by his rules and then reestablished as a mystery.” But what I actually said is something quite different: that the rules and principles of grammar “provide the means” for the CALU, thus shedding light on it, but not giving anything like a full account of it, and not resolving the mysteries it poses.

Drach considers this resolution of her various “contradictions,” but rejects it, on curious grounds. She cites my observation that there is no inherent contradiction in the notion of creativity constrained by rules.<sup>2</sup>

<sup>2</sup>I also distinguished between the CALU and “true ‘creativity’ in a higher sense,” discussing also “rule-changing creativity” as well as the creative use of particular rules and canons. See *Cartesian Linguistics* and *Language and Mind*.

- (4) “There is no contradiction in this, any more than there is a contradiction in the insistence of aesthetic theory that individual works of genius are constrained by principle and rule. The normal, creative use of language, which to the Cartesian rationalist is the best index of the existence of another mind, presupposes a system of rules and generative principles.”

But there is a “problem,” Drach believes; namely, “that the rules he provides leave untouched what is by his own avowal the most important aspect of the creativity: the coherence and appropriateness of ordinary speech.” That is indeed a problem, but it is not my problem. Rather, it is a point that I insistently stressed, in the passages that Drach cites and elsewhere. We can formulate the principles and rules – at least, we can approach this task with increasing success – but that will still leave fundamental aspects of the CALU a mystery, though success in the task that seems within reach will yield insight into the mechanisms that are crucially involved in the CALU and that make it possible.

Drach states, however, that success in this venture “leaves the CALU out completely.” This is obviously false. An important connection is established between grammar and the CALU if we can show how grammar “provides the means” for the CALU, how mastery of a system of rules enables (in the sense of providing a crucial necessary condition) the speaker-hearer “to make use of language in the normal creative fashion.” In fact, Drach recognizes the falsity of her central conclusion, writing: “Still, it would seem that understanding the mechanisms that make something possible should go some way toward dispelling the mystery that surrounds it.” It is true that understanding the mechanisms goes some way towards shedding light on the CALU so that Drach’s major conclusion is false as she here concedes, but it still leaves intact what I called the “mystery” in passages she cites; see below.

Drach argues that what “legitimately emerges” from my account is that “the role of language in the creative performance of the speaker is no more essential than that of

brushes in the painter's creative performance"; thus on my account, she alleges, "the role of language in the CALU is parallel to that of brushes in painting, or the CABU." Her argument appears to be that since brushes play a role in painting, it therefore follows that the study of the principles and rules involved in some "creative" performance (but see note 2) can in principle shed no more light on this performance than the study of brushes sheds on "the painter's creative performance." In particular, the study of aesthetic canons, conventions, principles and rules can provide no understanding of the work of the artist (cf. (4), though the analogy drawn there should evidently not be pressed too far (see note 2, and observe also that elucidation of the rules and principles that make possible the CALU is quite different in other respects from discovery of specific aesthetic canons), a conclusion that is plainly incorrect. And the study of the mechanisms of grammar yields no understanding of the CALU. Or to construct an "argument" of the same sort closer to the point, since the tongue musculature enters into language use but yields no insight into the CALU, therefore the study of the mechanisms of grammar yields no insight into the CALU. This argument can hardly be taken seriously, but perhaps there is no point in considering it further since, as noted above, Drach recognizes that it is invalid, and that her central conclusion concerning the CALU and the mechanisms of grammar is false.

Elsewhere Drach writes: "Having added these properties to the CALU, it must at one point have become painfully clear to Chomsky – as indeed it was to the reader – that his concept of competence and the generative grammar that was supposed to characterize it had nothing to say about them." The central property that was allegedly added – "with particular emphasis," Drach states – is "appropriateness." Note that this property was "added" in the earliest passage she cites; cf. (6) below. Furthermore, as already noted, it would be wrong to conclude that the "concept of competence and generative grammar" has "nothing to say about" the CALU, though it has nothing to say about appropriateness of use, freedom from stimulus control, etc. Finally, nothing new became

“painfully clear,” since it was all clear, and not painfully, in the earliest passages Drach cites, and consistently throughout.

The basic confusion that runs through Drach’s account can be summarized as follows. She begins with my observation that (A) the study of grammar can bring to light the mechanisms that enter into the CALU. She concludes from (A) that I have claimed that (B) all of language, including the CALU in its entirety, “is accounted for *in toto* by the rules of the transformational grammar.” Then, she continues, after the latter claim had “more than done the job it was called upon to do—gather countless repentant behaviorists to the Chomskyan fold,” I silently withdrew it, noting that (C) the CALU remains a mystery. Given (C), it then follows, she concludes, that (D) my “account of language and of the knowledge of it leaves the CALU out completely.” The errors of reasoning are transparent. (B) does not follow from (A) (nor have I ever claimed that (B)), and (D) does not follow from (C). Furthermore, I have held to the same position throughout, namely, (A) and (C), along with the obvious thesis (which, as noted above, Drach accepts) that (E) exhibiting the grammatical mechanisms involved in the CALU sheds important light on it, while not accounting for it. Furthermore, all of this is clear and explicit in the passages she cites.

Drach claims to be “confused” by such conjunctions of passages as (2), and a few pages later, (5) (see note 1):

(5) *“We cannot now say anything particularly informative about the normal creative use of language in itself. But I think that we are slowly coming to understand the mechanisms that make possible this creative use of language, the use of language as an instrument of free thought and expression”* (emphasis added).

Drach omits the first sentence of (5) here italicized. She then states that the second sentence “seems to be in direct contradiction” to (2). Note that the sentence she omits recapitulates the relevant part of (2). A more accurate version of her statement, then, would be that the second sentence of (5)

“seems to be in direct contradiction” to the first sentence of (5) which she omitted. But it is quite clear that there is no contradiction, and no reason to be confused – particularly, when the sentence Drach omitted is restored. We can come to understand the mechanisms of grammar that provide a crucial necessary condition for the CALU while we do not (and may never) understand what makes it possible for humans to employ these mechanisms as they do. This is a simple and straightforward point, which Drach appears to misunderstand throughout.

Let us now turn to Drach’s account of how I allegedly made strong claims to entice the unwary behaviorist to the fold, then silently withdrew them when the job was done. The earliest passage she cites (from CI), to which she repeatedly refers in support for her claims, is this:

(6) “The central fact to which any significant linguistic theory must address itself is this: a mature speaker can produce a new sentence of his language on the appropriate occasion, and other speakers can understand it immediately, though it is equally new to them. Most of our linguistic experience, both as speakers and hearers, is with new sentences; once we have mastered a language, the class of sentences with which we can operate fluently and without difficulty or hesitation is so vast that for all practical purposes (and, obviously, for all theoretical purposes), we can regard it as infinite. Normal mastery of a language involves not only the ability to understand immediately an indefinite number of entirely new sentences, but also the ability to identify deviant sentences and, on occasion, to impose an interpretation on them ... it is clear that a theory of language that neglects this ‘creative’ aspect of language is of only marginal interest .... Clearly the description of intrinsic competence provided by the grammar is not to be confused with an account of actual performance .... Nor is it to be confused with an account of potential performance. The actual use of language obviously involves a complex interplay of many factors of the most disparate sort, of which the

grammatical processes constitute only one. It seems natural to suppose that the study of actual linguistic performance can be seriously pursued only to the extent that we have a good understanding of the generative grammars that are acquired by the learner and put to use by the speaker or hearer.

Drach cites these passages, apart from the final sentence. From them, she concludes that I am referring the CALU to competence, not performance. In fact, the passages are perfectly explicit in attributing the CALU to performance, not competence; the CALU is an aspect of the “use of language” (i.e., performance), which is “not to be confused” with competence. (Note also that the passage stresses at once the relevance of “appropriateness” to the CALU; Drach acknowledges this, but dismisses it, claiming that this notion was only “added” in later discussion). Drach’s sole reason for her claim that these passages refer the CALU to competence is that the phrase “the creative aspect of language” (her CAL) appears. But surely this is a curious way to read. The passage is explicit that it is language *use* that is being discussed, and stresses the importance of distinguishing the study of competence from the study of language use, which obviously involves “factors of the most disparate sort” apart from the mechanisms of grammar. The term “language” is clearly nontechnical in this context; the term is surely used conventionally with sufficient breadth to include language use, and the passage leaves absolutely no doubt as to the intent, which Drach grossly misconstrues. The conclusion, then, is that in the earliest passage Drach cites, I was quite explicit in distinguishing competence from performance and attributing the CALU to performance. The same is true throughout.

Some of Drach’s readings are really quite remarkable. For example, in a further effort to show that in early work I referred the CALU to competence, not performance, she cites a passage that “clinches it – it is linguistic competence.” The passage reads:

- (7) “The most striking aspect of linguistic competence is what we may call the ‘creativity of language,’ that is,



the speaker's ability to produce new sentences, sentences that are immediately understood by other speakers although they bear no physical resemblance to sentences which are 'familiar.' The fundamental importance of this creative aspect of normal *language use* has been recognized since the seventeenth century at least" (emphasis added).

Note that the passage refers explicitly to *language use*, that is, to performance. It immediately follows discussion of the "distinction that must be made between what the speaker of a language knows implicitly (what we may call his *competence*) and what he does (his *performance*)." The aim of a "linguistic grammar" is "to discover and exhibit the mechanisms that make this achievement possible," namely, achievement of the CALU, where "make possible" is to be understood as before, clearly. Drach might have made the point that reference to performance as an "aspect of linguistic competence" might have been misleading, despite the immediate clarification and the preceding discussion of the nature and importance of the distinction. But it is strange indeed to cite a reference to the creative aspect of "language use" as a "clinching" argument that I am referring "not [to] language use," but to competence, in discussing the CALU.

Comparable misreadings and confusions run through Drach's entire article. For example, she writes that "It is the creativity of human language, so eloquently extolled by Chomsky and, in the eyes of his followers, decisively demonstrated by his generative-transformational linguistics .... "It is difficult to imagine that anyone has taken the CALU to be "decisively demonstrated by generative-transformational linguistics"; a reference would have been helpful. To my knowledge, the CALU has always been presented as in effect an observation, and far from a novel one. The goal of "generative-transformational linguistics" was, in the first place, to exhibit the mechanisms that enter into the CALU, and, more significantly, to discover the basis in innate endowment for the development of these mechanisms in the case of particular languages.

To cite another case, related to the latter concern, Drach

claims that I am evasive about whether human behavior can be modeled by automata, thus allowing too wide a variety of “converts to Chomskianity.” As proof, she cites such passages as those given above, which observe that the CALU remains a mystery, while other passages, she claims, support the conclusion “that Descartes and his followers simply lacked the foreknowledge to imagine sophisticated present-day computers.” She cites two passages which might, she claims, support this “logical conclusion”:

- (8) “There would be no difficulty, in principle, in designing an automaton which incorporates the principles of universal grammar and puts them to use to determine which of the possible languages is the one to which it is exposed.”
- (9) “This is not to deny that the method of explanation suggested by La Mettrie may in principle be correct.”

Consider first (8). This states that the problem of selecting a grammar on the basis of evidence, given the principles of universal grammar, might in principle be modeled in an automaton. But this in no way conflicts with the belief that the CALU cannot be modeled in an automaton, a point that is quite obvious, and that is emphasized in the references Drach cites, even in a passage she cites: namely, that among the questions “that appear to be within the reach of approaches and concepts that are moderately well understood – what I will call ‘problems’,” I class “questions of linguistic competence and of *language acquisition*” (her phrase, my emphasis); while among the questions that “remain as obscure to us today as when they were originally formulated – what I will call ‘mysteries’,” I class “questions of performance” (her phrase; more accurately, questions of production).

Consider next (9), a footnote added to a discussion of how La Mettrie failed to consider “the problem raised by Descartes,” namely, the problem of the CALU. The footnote merely expresses the open-mindedness that any rational person should maintain when faced with an entirely open question, one that remains a “mystery.” To state that some form

of “mechanism” might in principle be correct does not yield the “logical conclusion” that the CALU can be modeled by a computer program. To express doubts as to whether the CALU can be so modeled is not to put forth the claim that these doubts are unshakeable truth.

There are other examples, but perhaps this sample suffices.

Drach finds my “appeal to Descartes’s doctrine of innate ideas” baffling, indeed, “doubly baffling.”<sup>3</sup> Note first that there was no such “appeal,” another curious misreading. Why is my allusion to this doctrine “doubly baffling”? Drach’s reason is (i) that Etienne Gilson states that the Cartesians rendered “the existence of human language philosophically incomprehensible and its very possibility inconceivable,” and (ii) that he stated that Descartes’s doctrine

<sup>3</sup>Drach claims “that critics have as much trouble pinning Chomsky down concerning the meaning of his doctrine of innateness as it was difficult to do so in the case of Descartes,” citing no examples or reasons. Putting aside the interpretation of Descartes, I am unaware of any difficulties in pinning down the meaning of my views on innateness. Evidently, there is some element of biological endowment that enables a human, but not a bird or (so far as is known) a higher ape, to acquire a human language. This “doctrine of innateness” is certainly not difficult to “pin down,” and is in fact hardly controversial. I also tend to believe, as do many others, that there are some “special purpose devices” involved in what I think should properly be called “the growth of grammar.” This is, plainly, an empirical issue, and the “doctrine” (i.e., the belief, for which there is fairly good evidence) is again not difficult to “pin down.” I have also made proposals, as have many others, about what these devices might be, abstractly characterized as properties (specifically, principles) that it seems plausible to attribute to an innate “language faculty,” realized somehow in as yet unknown physical mechanisms. If the meaning of this “doctrine” is difficult to “pin down,” then the same must be true of similar studies of the visual system (and in this regard, the reference to Descartes, and to current research, is quite appropriate, as discussed in detail in references that Drach cites).

In fact, there is no more difficulty in understanding what Drach calls my “doctrine of innateness” than there is in understanding the “doctrine” that the human and insect visual systems develop on the basis of distinct biological endowment, or the “doctrine” that the human visual system incorporates a rigidity principle that is used in visual processing and is somehow physically realized, etc. The belief that there is something deeply puzzling here has been frequently expressed, but as yet, no one has succeeded in explaining what the puzzle or problem might be, or why the puzzle (whatever it is) arises peculiarly in the case of language.

of innate ideas enlists that “side of his personality where he is not truly himself, and to put it bluntly, one of his defects” – he appealed to innate ideas to show how the mind could “grasp the truths of religion”; “This is what the doctrine of innateness was to allow him to do,” Drach states, citing Gilson.

There is no reason to be baffled, even once. I would agree, and have repeatedly so stated, that appeal to a second substance is not in order; in fact, Newton demonstrated that Descartes’s concept of “body” was far too limited, as is well known. If this is the import of (i), we may dismiss it. If (i) refers to the CALU, however, then we may not dismiss it, though (i) would be a most misleading way to express the point. But while we need not follow Descartes in postulating a second substance, nevertheless, as I pointed out in the work to which Drach refers, some critical elements of the “Cartesian” framework<sup>4</sup> can be adapted and reconstructed in ways that make a good deal of sense – without, however, dispelling some of the mysteries to which the Cartesians alluded. As for the claim (whether it is Gilson’s, as Drach alleges, or not) that Descartes’s notion of innate ideas was developed solely to account for the truths of religion, that is simply false, as is amply demonstrated in passages that I cited, which are those relevant to my further discussion.

Drach concludes with some speculations about my “change of mind about creativity, first said to be accounted for by [my] rules and then reestablished as a mystery.” When her misreadings and errors are corrected, it becomes clear that there has been no change of mind in this respect (there has been in many other respects, as explained in the work Drach cites and elsewhere, and I would hope that formulations became clearer over the period that Drach surveys), hence no need to speculate about the motives for it.

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<sup>4</sup>Note that the concept “Cartesian” was explicitly given a rather broad construal in the work Drach cites. Cf. *Cartesian Linguistics*, note 3.