

MASTERING A NATURAL LANGUAGE: RATIONALISTS VERSUS EMPIRICISTS

Behaviorist theories of language acquisition are the most prominent among current empiricist theories of language. But the inherent weaknesses of behaviorism—whether or not applied to language acquisition or linguistic meaning or the like—do not as such call into question the adequacy of the empiricist conception of language. The issue is central to contemporary speculation about the nature of linguistic competence and the infant's acquisition of language. Empiricism has, in fact, been vigorously challenged in the most sustained way, in a variety of publications, by Noam Chomsky. "From a formal point of view," Chomsky holds,

the grammar that is internalized by every normal human can be described as a theory of his language, a theory of a highly intricate and abstract form that determines, ultimately, a connection between sound and meaning by generating structural descriptions of sentences ("potential percepts"), each with its phonetic, semantic, and syntactic aspects. From this point of view, one can describe the child's acquisition of knowledge of language as a kind of theory construction. Presented with highly restricted data, he constructs a theory of the language of which this data is a sample (and, in fact, a highly

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degenerate sample, in the sense that much of it must be excluded as irrelevant and incorrect—thus the child learns rules of grammar that identify much of what he has heard as ill-formed, inaccurate, and inappropriate). The child's ultimate knowledge of language obviously extends far beyond the data presented to him. In other words, the theory he has in some way developed has a predictive scope of which the data on which it is based constitute a negligible part.

The normal use of language characteristically involves new sentences, sentences that bear no point-by-point resemblance or analogy to those in the child's experience. Furthermore, the task of constructing this system is carried out in a remarkably similar way by all normal language learners, despite wide differences in experience and ability. The theory of human learning must face these facts. I think that these facts suggest a theory of human intelligence that has a distinctly rationalist flavor.¹

Irresistible as Chomsky's facts are, it is rather more difficult than at first appears to disconfirm empiricist theories of language learning and to confirm the rationalist thesis Chomsky himself prefers. For one thing, there is no simple line of demarcation between rationalism and empiricism with respect to the doctrine of "innate ideas"—the issue that has traditionally separated rationalists and empiricists and that, curiously, has dominated the current quarrels about language acquisition. As Chomsky himself makes clear (following Leibniz) it is not the case (even for Locke) that the empiricists deny innate capacities of mind.² Adoption of the doctrine of the *tabula rasa* has never actually been relevant to sorting out the partisans of these two opposed points of view, though prominent empiricists (Goodman, in our own time) may have taken Locke to have disposed of innate ideas once and for all.³ Secondly, contemporary empiricists are entirely willing to postulate innate capacities of mind on which

¹ "Linguistics and Philosophy," in *Language and Mind*, enlarged edition, New York, Harcourt Brace Jovanovitch, 1972, pp. 170-171.

² Cf. Noam Chomsky, *Aspects of the Theory of Syntax*, Cambridge, M. I. T. Press, 1965, Ch. 1; also, Noam Chomsky, *Cartesian Linguistics*, New York, Harper and Row, 1966.

³ Cf. Nelson Goodman, "The Epistemological Argument," *Synthese*, XVII (1967), p. 24.

language learning depends. Hilary Putnam, for instance, attempts to account for language acquisition in terms of such intellectual capacities as those affecting memory.⁴ The thesis may be regarded as a contribution in a broadly Humean (even, perhaps, Lockean) tradition. Putnam's view, however, is characterizable both as construing language acquisition as a relatively simple achievement—hence as not requiring a very exceptional or argumentative version of the doctrine of innate ideas—and as postulating that the innate ideas required are general intellectual competences and not specifically linguistic (determinate and complex linguistic) inborn structures. The rationalist (Chomsky) argues, by contrast, that the innate component required is remarkably articulated, complex, specifically linguistic, utterly alien to empiricist admissions, and “species specific.”

Chomsky's governing thesis is, quite simply, that a proper study of the grammatical structure of *natural* languages viewed in terms of the remarkably efficient, rapid, and convergent command of given languages by human infants initially totally ignorant of those languages argues that linguistics is essentially a specialization within cognitive psychology, and, in particular, commits us (on empirical grounds) to a rationalist conception of the mind. The empiricist—say, in the spirit of Hume—would argue that human beings are innately capable of certain general intellectual strategies, prompted by sensory experience: principally, capable of associating ideas involving the capacity to name, remember, abstract, and the like; consequently, learning a language is simply regarded by empiricists as a specialized task within the general competence of men, a task that does not presuppose initial capacities specifically and antecedently structured for mastering grammars. The rationalist denies this, insisting that what the infant learns in learning a language is a deep structure that is highly abstract, normally not accessible introspectively, not clearly linked to any usual run of empirical cues, and enabling the speaker regularly to improvise grammatically sound sentences not empirically or straightforwardly dependent on the range of sentences to which he was first introduced in acquiring his tongue; hence, that linguistic acquisition pre-

⁴ “The ‘Innateness Hypothesis’ and Explanatory Models in Linguistics,” *Synthese*, XVII (1967), 12-22.

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supposes that the mind is antecedently and in a detailed way structured to learn languages.⁵

There are at least two very general considerations that count seriously against Chomsky's strong claim, that do not require any close analysis of putatively local or universal features of language. Suppose we grant Chomsky's thesis provisionally. Well, then we must concede that the infant not only recovers the allegedly universal grammar that sets constraints on the local grammar of the particular natural language he masters but also that he *masters* (but does not *recover*) the local grammar of his actual language. We may reasonably suppose, *on Chomsky's thesis*, that the acquisition of a particular language is a more difficult feat than the recovery of some inborn universal grammar. For, after all, a given natural language will have features assignable to the universal grammar as well as its own distinctive features; and its distinctive features will be somewhat idiosyncratic, linked to historical accidents, and complicated by a large number of causal factors not bearing directly on the evolution and genetic inheritance of the human brain. But if this is so, then it is a foregone conclusion that the mastery of a natural language cannot be accounted for—that is, the *ability* to speak a particular natural language as opposed to what Chomsky calls linguistic *competence* (linked to the recovery of a universal grammar) *and* to actual linguistic *performance* (that depends on external factors as well⁶—in the way in which he supposed rationalism can account for language acquisition. The reason is elementary. The specific grammar of a given natural language is not innate to the human infant; in fact, infants will learn any natural language with the same facility if properly associated with competent speakers: a child of French-speaking parents will speak Eskimo and not French if only he is reared among the Eskimo and not among the French. But that means that the infant must learn the intricate grammar of a natural language that is not innate even if *that* grammar is constrained by a deep grammar that is innate. He must, that is, have a general intellectual capacity to discover the local grammar of his language *under*

⁵ Cf. particularly "Linguistic Contributions to the study of Mind: Future" and "Form and Meaning in Natural Languages," in *Language and Mind*.

⁶ Cf. *Aspects of the Theory of Syntax*, Ch. 1.

conditions essentially like those under which Chomsky supposes empiricism cannot but be inadequate. In a word, *only* an empiricist theory of language acquisition (governed, on the hypothesis, by a rationalist theory of universal grammar) can account for the mastery of the idiosyncratic features of given natural languages under conditions of fragmentary, degenerate, ill-formed, divergent empirical cues. (This is the distinction that we may register by speaking of linguistic *competence* and linguistic *ability*, the *recovery* of an innate universal grammar and the *mastery* of a particular natural language). But if this is the case, then it becomes argumentative whether the recovery of the allegedly deep grammar could not also be accounted for on empiricist grounds (whether, that is, the “recovery” is not actually a mastery) or whether indeed there is even a need to postulate a fixed, innate, deep, and universal grammar. In any event, if an infant cannot but discover the local structure of his native language by means of general intellectual capacities, then it becomes an open question whether such (empiricist) capacities need to be supplementary to a deeper (rationalist), specifically grammatical, competence or whether, once admitted, it may be so characterized as to make possible the explanation of language acquisition on the strength only of such innate capacities as empiricists are willing to admit—where, that is, the *local* or particular grammar of given languages may well be abstract, not clearly linked to empirical cues, and the like. To put the matter in this way is not, then, to press for a stalemate; on the contrary, the burden rests once again with the rationalist to show what more is needed. In fact, the very uncertainty of contemporary grammarians that any of their hard-won generalizations about grammatical rules—which, on the hypothesis, children must have internalized—actually are linguistic universals argues that rather extraordinary *empiricist* capacities must be assigned them whether or not rationalist capacities are as well.

The second consideration is this. Suppose that, as experimental evidence seems to bear out, the primates are capable of learning some range of the grammar of human languages.⁷ This is a much more significant achievement, relative to our question, than that

⁷ Cf. R. A. Gardner and Beatrice T. Gardner, “Teaching Sign Language to a Chimpanzee,” *Science*, 165 (1969), 664-672.

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some creature other than man (dolphins, say) actually has a language. Chomsky holds that language is "species specific". Sometimes, he seems to say that only man can master language, but, sometimes, he admits the possibility that other creatures may (though they appear not to) have a language. Should dolphins (or Martians) be shown to have a language, Chomsky's thesis would not be seriously affected. But, it *would* be seriously affected if the chimpanzee could master some part of *human* language. For, Chomsky's thesis is, quite precisely, that

knowledge of a language—a grammar—can be acquired only by an organism that is "preset" with a severe restriction on the form of grammar. This innate restriction is a precondition, in the Kantian sense, for linguistic experience, and it appears to be the critical factor in determining the course and result of language learning.⁸

But, on empirical grounds, it appears that chimpanzees neither speak a natural language of their own nor are "preset" to master human languages. Consequently, if the chimpanzee with his alien experience and evolution can master a portion of human language (both universal and local grammatical features) there would seem to be no plausible hypothesis except the empiricist's for accounting for his achievement. But, in that case, it must be an open question whether human infants *could* master human languages on the basis of innate capacities characterized solely in empiricist terms. At the very least, then, Chomsky cannot have made his case out as he supposes he has. More than this, it is not entirely clear *what* evidence would be decisive for confirmation, despite the fact that Chomsky assumes the matter to be empirical. Consider, in this regard, a human society that speaks an *artificial* language (having abandoned, say, the natural language by means of which they formulated their present language) and that they attempt to rear their offspring in the artificial language alone by the same general instructional methods that obtain for natural languages. *If* their offspring could learn that language, then, on the hypothesis (countenanced and even pressed by Chomsky) that an artificial language may well be coherent and yet depart from given linguistic universals in important ways, there would—for

⁸ *Language and Mind*, p. 91.

empirical reasons—be no basis at all for holding to the rationalist thesis. On the other hand, the failure of children to learn such language may, conceivably, be due to nonlinguistic limitations, for instance, the competence of memory. Until a significant run of linguistic universals were actually in hand, it would not be possible to confirm rationalism and disconfirm empiricism; but it very much looks as if the only evidence at the present time for the rationalist thesis is that *generalizations* regarding grammar *may* be approximations of linguistic universals, and that is hardly enough.

There are some deeper considerations. Natural languages, one supposes, are cultural achievements, that is, culturally emergent phenomena. Feral children, for example, cannot master languages or cannot perform significantly better than the primates. It is quite possible that their inability to perform linguistically depends on more fundamental physical changes—for instance, on the decline of babbling. But it is difficult to see in what sense an innate grammar may confidently be assigned to them on empirical grounds, and it is difficult to see how whatever marginal linguistic ability they may exhibit would incline us to a rationalist thesis rather than an empiricist. Nevertheless, Chomsky's thesis would oblige us to treat natural languages as partially emergent (culturally) and partially constrained by pre-cultural, genetically determined grammatical rules. As Chomsky says, the hypothesis is "that deep structures of the sort postulated in transformational-generative grammar are real mental structures".⁹ But he is also committed to the view that the rules of the generative grammar are congruent with the local rules of given languages; for he speaks of the "general property of language" namely that "certain universal principles must interrelate with specific rules to determine the form (and meaning) of entirely new linguistic expressions;"¹⁰ and he says that, in order to determine the universal grammar, "we must abstract away from the other factors that are involved in the use and understanding of language, and concentrate on the knowledge of language that has been internalized in some manner by the language user."¹¹

⁹ "Form and Meaning in Natural Languages," in *Language and Mind*, p. 107.

¹⁰ "The Formal Nature of Language," in *Language and Mind*, p. 133.

¹¹ "Linguistics and Philosophy," in *Language and Mind*, p. 169.

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The point to be emphasized here is that the universal and local grammatical features of given languages are empirically discriminated in essentially the same way, by considering the scope of given hypotheses for given runs of linguistic data. The universal grammar is simply what, on the evidence, proves to be invariant and universally binding on the entire range of natural languages. Of course, it is important to remember that the thesis in question concerns *natural* languages, since—as Chomsky regularly emphasizes—it is quite possible to construct languages that do not behave in accord with alleged linguistic universals; hence, the importance of theorizing about the infant’s language acquisition.¹² Still, on the thesis that Chomsky proposes, the local grammatical features of a language will be assigned to a certain *cultural* emergent and the universal features, to a *pre-cultural* mental structure (whether materialistically defined or not is, at this point, not taken to be particularly significant).¹⁸ But the universal grammar required will be a set of determinate *rules*. “The person who has acquired knowledge of a language,” Chomsky affirms, “has internalized a system of rules that relate sound and meaning in a particular way;” and the relationship that obtains requires a psychological account of both “universal and particular grammar.”¹⁴ But this means that Chomsky is committed to the strenuous theory (the rationalist theory, of course) that the human mind, apart from cultural influence, is so structured that it is innately disposed to follow determinate rules. That is, it is not merely that the mind is so structured that mental phenomena accord with certain lawlike regularities (invariantly, according to Chomsky, though in a sense that does not entail invariantly appropriate performance) but that it is so structured that even the infant mind hypothesizes (or behaves in a way suitably analogous to forming hypotheses) about how culturally relevant data may be assigned properties conformable with pre-culturally held universal *rules*.

The difficulties with this thesis are quite complex and not entirely easy to specify. But consider that a human *person* is

¹² *Loc. cit.*

¹³ “Linguistic Contributions to the Study of Mind: Past,” in *Language and Mind*, p. 14.

¹⁴ “Linguistic Contributions to the Study of Mind: Present,” in *Language and Mind*, pp. 26-28.

normally a creature of a certain physically endowed sort that, under conditions of cultural training, has acquired the ability to use a language (where 'ability,' as noted above, signifies more than what Chomsky calls 'competence' with respect to a language).¹⁵ An empiricist account would admit innate intellectual capacities to determine operative rules for a given domain, in particular, the rules of language; it would normally do so by supposing that a potential speaker of the language would emerge as a person *as* the creature actually learned (by strategies that are at present an utter mystery) the rules of a particular natural language. The rationalist is bound to hold that *the local rules of a given language are discernible as such by an infant who has not yet emerged as a speaker of the language but who does emerge as a speaker of that language by testing hypotheses about its rules by reference to universal rules that it is already somehow in possession of*. Hence, the rationalist has to explain the sense in which a merely sentient organism, prior to cultural or societal training, can be said to possess rules—when the very notion of a rule seems to entail norms governing admissible and inadmissible instances of some determinate sort, that is, when the very notion of a rule seems to make no sense apart from institutionalized forms of life. The institutions appear to be fully cultural and complex where language is concerned and at least proto-cultural where relatively complex, learned, and distinctly alterable social patterns are concerned (as among monkeys and primates and even, if Konrad Lorenz may be believed, among birds).

In a word, on the rationalist assumption, the human infant is already, in some sense, oriented to the discrimination of rules because it is pre-culturally endowed with a set of invariant rules to which whatever rules it may posit provisionally for any culturally confronted language must conform, in order for that language to be discernible as a language. Machine analogues are clearly irrelevant, since machines are known, by their inventors

¹⁵ Cf. for instance, Chomsky's reply to Gilbert Harman's criticisms, "Linguistics and Philosophy," *Language and Mind*, pp. 190-191. Harman's remarks about the "resourceful empiricist" converge with the account here given, except that Harman fails to consider the essential distinction between rules and laws; also, there are some inaccuracies in his summary of Chomsky's thesis, particularly bearing on the concepts of competence and the infant's tacit knowledge. Cf. Gilbert Harman, "Psychological Aspects of the Theory of Syntax," *Journal of Philosophy*, LXIV (1967), 75-87.

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at least, to be programmed to follow certain rules. The rationalist hypothesis was more plausible in the seventeenth century, since God at least was thought to be the artificer of man. And, indeed, for Descartes, the mind is *thinking substance*, substance inherently so structured that it innately adheres to the *rules* of thought and reason; whereas the empiricists characteristically hold—for instance, speaking of the association of ideas and of the conditions of memory—of certain innate *lawlike* regularities governing the processes of thought. Hence, the rationalist and the empiricist are more fundamentally opposed to one another than might even have appeared in acknowledging that the rationalist claims the mind to have an innate linguistic structure whereas the empiricist claims only an innate general intellectual structure. That Locke, for instance, is in some respects a rationalist in spite of himself is, in a sense, irrelevant. The main thrust of the rationalist-empiricist quarrel concerns whether the human infant is so endowed that it can *discover* (invent or master) the rules of reason and the rules of language or whether it is, in some sense, already endowed with such rules that it may, under conditions of sensory experience, *recover* the essential structure of its own mind. (Chomsky himself sees the Platonic tone of his theory.¹⁶ The reason for stressing the difference between the two accounts is simply that one sees at a stroke that, contrary to Chomsky's view, the issue is not straightforwardly empirical, since it is by no means obvious what is meant in assigning determinate rules to the innate structure of the mind and since the resolution of the issue depends decisively on our theory of the nature of human persons and of the development of mental abilities. In any case, Chomsky's thesis requires the inclusion of the empiricist's version of innate ideas, since, on his view, the infant must be endowed with general intellectual abilities by means of which to recover the hypothetically "present" universal grammar. The only quarrel that remains concerns whether, given such abilities and the inadequacy of a rationalist thesis to account for the *mastery* of a particular natural language, it is necessary (or even coherent) to postulate that the mind has an innate linguistic structure. The controversy affords us, incidentally, an important by-benefit, for it enables us to see at a stroke

¹⁶ Cf. "Acquisition and Use of Language," in *Cartesian Linguistics*, p. 63.

the fundamental difference between rationalists and empiricists: both admit innate ideas; but the empiricist admits only lawlike regularities governing the mind, and the rationalist includes, in addition, rulelike universals.

We may press this finding in a number of ways. For one thing, *if* Chomsky were a materialist (which is not required, though it is suggested, by his various statements,¹⁷) then if he held that the rules of universal grammar innately structured the brain, he would be obliged to treat man as a machine or God as man's artificer or the like. For, otherwise, he would not be able to account for preferring a rationalist thesis over an empiricist: the notion of a *physical brain* innately structured to "follow rules" is, to say the least, difficult to defend. Again, consider the interesting thesis that, in the so-called holophrastic period of development, not only do "young children express something like the content of full sentences in singleword utterances" but also "the concept of a sentence undergoes a continuing evolution through the holophrastic period."¹⁸ For example, a child is observed to say *hi* "when something hot [is] presented to her" (at 12 months, 20 days) and *ha* "to an empty coffee cup" (at 13 months, 20 days) and *nana*, pointing to the top of a refrigerator, "the accustomed place for finding bananas", even though there are none (at 14 months, 28 days.¹⁹) There is some understandable (and inescapable) idealization about the verbal behavior of young

¹⁷ Jerrold Katz, an advocate and expositor of Chomsky's theories, seriously confuses the quarrel between Chomsky's transformational-generative thesis and the taxonomic conception of linguistics (Leonard Bloomfield's, for instance) with that between rationalist and empiricist linguistics. As Harman, *loc. cit.*, has suggested, Zellig Harris and Henry Hiz's method of co-occurrence is empiricist in theory, associated with the theory of transformational grammar, and yet rich enough (in contrast to taxonomic procedures) to deserve serious consideration. More to the point, Katz explicitly says that the *mentalist* in linguistics (the Chomskyite) holds that "the structure of the mechanism underlying the speaker's ability to communicate with other speakers ... is a brain mechanism, a component of neural system." Cf. Jerrold J. Katz, "Mentalism in Linguistics," *Language*, XL (1964), 124-137. If this is a fair statement of Chomsky's views, then, indeed, Chomsky is committed to the view that—apart from methodological difficulties in theorizing about the structure of the brain—the *brain* is innately structured in terms of *rules* to which, in some sense, it must conform.

¹⁸ David McNeill, "Are There Specifically Linguistic Universals?," reprinted in Danny D. Steinberg and Leon A. Jakobovits (eds.), *Semantics*, Cambridge, Cambridge University Press, 1971.

¹⁹ *Loc. cit.* The thesis is based on the reports of a Doctor P. Greenfield.

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children here. But, more than that, it is quite impossible, for holophrastic expressions, to attempt to provide evidence exclusively confirming or disconfirming rationalist and empiricist hypotheses about language acquisition. The evidence at the holophrastic level appears to be both idealized and insensitive to the competing theories. But if so, there is—given the considerations already entertained—reason to think that the evidence may be inherently incapable of deciding between the theories.

It should be said that David McNeill, who has pursued the question in a Chomskyan spirit, holding that there are “reasons for supposing that the concept of a sentence is not a product of learning²¹” and holding that “Children everywhere begin with exactly the same initial hypothesis: sentences consist of single words,²²” has actually attempted to argue that the linguistic universals of language acquisition, considered diachronically through the stages of learning, are everywhere the same.²³ His conclusion is that it is not difficult to account for children learning the universal abstract structure of natural languages because they actually “begin speaking underlying structure directly” and, only later, learn the transformational idiosyncrasies of particular languages.²⁴ But, though he shows the differences between an empiricist and rationalist conception of language learning, he has not demonstrated either that an empiricist account is inherently inadequate *or* that the rationalist account is intrinsically coherent or empirically confirmed. In particular, the early phases of language acquisition are idealized and the so-called universals are so extremely abstract that it is difficult to see in what sense they are specifically *linguistic* universals rather than cognitive universals, and, in fact, cognitive universals learned rather than innate. For instance, as McNeill says, “permutation... is a universal transformational relation... used in a unique way in English and French. Other universal relations are deletion and addition; there are perhaps only a half dozen varieties of universal transformations.²⁵” But it is difficult to see permutation, say, as essentially

²¹ *Loc. cit.*

²² David McNeill, *The Acquisition of Language*, New York, Harper and Row, 1970, p. 2.

²³ *Ibid.*, Ch. 1.

²⁴ *Ibid.*, pp. 71-72.

²⁵ *Ibid.*, p. 72.

linguistic or essentially innate—though it obviously concerns the limits of possible combination. Furthermore, there is absolutely no reason to suppose that children learning the “unique” forms of permutation of English and French must either have learned or must have been “preset” for the “universal transformational” forms or rules of permutation. To say so would not be altogether unlike saying, assuming Goldbach’s conjecture to be true for natural numbers that children who learn the rules for games with numbers, having idiosyncratic (but not incoherent or inconsistent) rules are obviously “preset” in accord with Goldbach’s conjecture—which they somehow use “directly” at the earliest stage of grasping numbers. That the conjecture may not be a universal corresponds to the possibility that putative linguistic universals may not be universals; that it may be a universal corresponds to the possibility that putative linguistic universals are universal only in the sense of logical constraints that cannot be violated, saving coherence; *and* that it may be an unfalsified generalization corresponds to the possibility that children may be capable of extraordinarily powerful linguistic generalizations, on empiricist grounds. In fact, McNeill merely assumes linguistic universals.²⁶

Finally, if predications that are made of *persons* and that are incapable of being made of physical bodies directly (in the sense of Strawson’s distinction between P-predicates and M-predicates, in the sense in which considerations of intention, purpose, meaning, rule-governed phenomena, and the like may be ascribed to persons and not bodies as such) are subsequently *assigned* to bodies, neural processes, and the like—for example, in accord with central-state materialism—the question of whether to support a rationalist or an empiricist theory will, necessarily, have to be decided independently of such assignment. Hence, there would be no merely physical evidence that could decide the issue, and putatively relevant evidence (bearing on the behavior and states of persons) would inevitably run the risk of being question-begging or indecisive.²⁷ Considerations such as these strengthen

²⁶ *Ibid.*, p. 3.

²⁷ Cf. P. F. Strawson, *Individuals*, London, Methuen, 1959, Ch. 3; also, D. C. Dennett, *Content and Consciousness*, London, Routledge and Kegan Paul, 1969, Ch. 4.

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the probability that the choice between the rationalist and empiricist alternatives is not an empirical one—in the seemingly straightforward sense in which Chomsky presses the issue.

Consider, also, Chomsky's linguistic universals. As Chomsky says: "a general principle counts as a linguistic universal if it is compatible with the facts for all human languages. As linguists, of course, we are concerned not with principles that happen by accident to be universal in this sense, but rather with those that are universal in the domain of all possible human languages, that is, those that are in effect preconditions for the acquisition of language."²⁸ If Chomsky were concerned with the *lawlike* preconditions of language, empiricists would give no quarrel: there is every reason to think that acquiring a language is a natural phenomenon for man, hence subject to regularities comparable to what may be found elsewhere in nature, including the non-linguistic behavior of men. But if that were Chomsky's objective, his universals would not be *linguistic* universals, since linguistic universals are rules. So Chomsky seeks rather to isolate rulelike universals, linguistic analogues of the universal laws of nature. Nevertheless, however comprehensive they may be, putative linguistic universals cannot be marked as such without some theoretical basis for distinguishing them from accidental generalizations (as Chomsky himself acknowledges) that happen to obtain for all known or extant languages; and, there seems to be no foundation for that distinction except the evidence that "every normal child acquires an extremely intricate and abstract grammar, the properties of which are much underdetermined by the available data."²⁹ But *that* fact, as we have already seen, does not decisively favor the rationalist account over the empiricist. For example, the child must, on the thesis, learn the extremely intricate and idiosyncratic transformational *generalizations* that hold for his language, even at an early age. *And*, since Chomsky's thesis entails that an empiricist theory of language acquisition is tenable (otherwise the issue could not be empirical, as he says it is), if it turned out that all the linguistic rules that Chomsky construes as universals or *approximations* to universals are actually

²⁸ Noam Chomsky and Morris Halle, *The Sound Pattern of English*, New York, Harper and Row, 1968, p. 25, footnote 12.

²⁹ *Ibid.*, p. 4.

global generalizations—with exceptions, special cases, and the like—then Chomsky himself would be committed to a powerful empiricist theory of just the sort that he rejects. But this is just what Chomsky implicitly admits in admitting, for instance, that the so-called transformational cycle principle—applied to stress assignment chiefly in English, though applicable to other languages—must still face significant challenges respecting scope that are of such force that the question of principles or universals still remains unresolved.³⁰ In a word, Chomsky's argument involves a circle: we suppose that the most comprehensive linguistic generalizations are linguistic universals because we are already committed to the rationalist thesis that the mind is “preset” to learn all possible languages; and we adopt the rationalist thesis because we suppose that the acquisition of language, taking place “with great speed, under conditions that are far from ideal, and [with] little significant variation among children who may differ greatly in intelligence and experience,³¹” cannot be accomplished unless the mind is appropriately supplied with linguistic universals. There seem to be no independent considerations.

On the other hand, there may well be conceptual constraints on all possible languages—in effect, universal rulelike regularities that *cannot* be violated without losing some measure of coherence, intelligibility, or the like. For example, it may be said to be impossible to admit thought as coherent—a *fortiori*, language—that violates the rule that nothing can be both A and not A in the same respect. There is no need to attempt to formulate carefully here any such rules; for, if there are any, they cannot be of the sort that Chomsky has in mind in speaking of *linguistic universals*. The reason is simply that it is, for Chomsky, theoretically possible to formulate an artificial language—that is, a language that human infants do not actually learn in the manner of natural languages (and, in fact, that they could not so learn)—but that competent language users are or may be capable of learning. Chomsky regularly emphasizes, therefore, that “there is no a priori reason why human language should make use of [his putatively universal rulelike operations rather than of alternative

³⁰ *The Sound Pattern of English*, pp. 23-24.

³¹ *Loc. cit.*

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operations that do not actually obtain in natural languages]. One can hardly argue,' he claims "that the latter [of which he provides conceivable instances] are more 'complex' in some absolute sense; nor... more productive of ambiguity or more harmful to communicative efficacy. "Yet," he insists, "no human language contains [say] structure-independent operations among (or replacing) the structure-dependent grammatical transformations."²² All this may be granted—but it falls noticeably short of the requirements of the rationalist. Rulelike generalizations will hold on empirical grounds and may be converted into *linguistic universals* only on the assumption of the rationalist thesis, which is itself presumably supported by the empirical discovery of linguistic universals; and conceptual or rulelike constraints on thought and language (transcendental constraints, in the Kantian sense) are *too* comprehensive to count as linguistic universals: Chomsky's universals (on his own view) are not the minimal price of coherence and intelligibility. Hence, there seems to be no viable empirical sense in which to construe a generative-transformational grammar as favoring the rationalist over the empiricist. But to say that is not to deny defensibility of such a grammar itself.

We may, then, put our findings in the form of a dilemma. Either Chomsky is a dualist (a true Cartesian) or else, advocating a psychology that is, in some sense, compatible with an adequate theory of the human body, Chomsky can offer no empirical grounds for preferring a rationalist linguistics to an empiricist. The irony is that Chomsky had supposed his theory to restore linguistics to the discipline of psychology (contrary to the taxonomic theories of Bloomfield and others) and to have exposed the inadequacy of a behaviorist linguistics (particularly Skinner's and Quine's). Nevertheless, Chomsky has failed to explain the sense in which it is coherent or confirmable to hold that the mind or the brain, innately and prior to any cultural influence, can be said to be so structured that it is disposed (not in the sense of habits or the like but in the sense of being in a certain formal state) to "follow" determinate and detailed rules determinately ordered by a hierarchy of rules. The point is that it hardly pays to construe linguistics as a branch of cognitive psychology if the theory

²² "Linguistic Contributions to the Study of Mind: Present," in *Language and Mind*, p. 63.

of mind that that entails posits an empirically inaccessible and theoretically inexplicable feature of the mind or brain. Alternatively put, Chomsky has merely fixed the puzzling features of language acquisition, not explained them. *If* linguistic rules are empirically defensible, they cannot be incompatible with an empiricist theory of the mind. Only an empiricist theory (short of dualism or a theory of pre-cultural programming—not a theory of genetics or evolution) can account for the mastery of linguistic rules on the basis of innate intellectual capacities, for, there appears to be no otherwise viable sense in which rules may be construed as innate to mind or brain. The theory of *innate* linguistic universals is incompatible with physicalism, the identity thesis, reductive materialism; and the theory of linguistic (or cognitive) *universals* is, as not innate, compatible with empiricism and with functional and other non-reductive forms of materialism. They simply signify the limits of conception and the like (conceivably changing diachronically—both for individuals and cultures) given certain lawlike regularities. Beyond this, there seems to be no specifically empirical respect in which the relevant evidence may be said to disconfirm empiricism and to confirm rationalism.³³

³³ Cf. Joseph Margolis, *Knowledge and Existence*, New York, Oxford University Press, 1973, Ch. 8.