reviewer by his wife in January 1953). Significantly, victims challenged by this sentence will attempt to resolve the ambiguity with superfixes and intonations, uniformly without success (at least in the local dialect, probably in all varieties of English). By diagramming, the two immediate-constituency structures can easily be made explicit, but not by speaking the two sentences.

Now standard punctuation goes only a small part of the way toward symbolizing the vocal signals of structure. There is a theory abroad in the land that good written style is apt to replace ambiguous wordings by unambiguous ones; your reviewer doubts that this goes very far at best, and has read enough to feel sure that very few writers do much about it. As a usual thing, we can be sure, it is the semantic implausibility and little else that operates to block wrong readings. The best that MT could do about grammar is to reject all immediate-constituent groupings that prevent syntactic closure: for example, it would have to reject 'little else that operates' as an IC of the preceding sentence, simply because accepting it would leave nothing for 'to block wrong readings' to be attached to; but in the present sentence it could not reject 'it would leave nothing ...' because closure is also possible with a structure that could be punctuated thus: 'simply because, accepting, it would leave ...' and the writer's punctuation rules do not require commas to mark these pauses any more than to mark the pause after 'little else'. Altogether it is doubtful whether a machine could find enough evidence in the wording to arrive at the correct structure throughout any of the last ten sentences, except the three-word sentence, including this one. And yet none of them could be unclear to a native speaker of English.

Here we have arrived, it would seem, at the limit of conceivable MT systems, where the output would have to be presented in two or more alternative wordings for each sentence, leaving the reader to choose the semantically plausible ones. This limitation leaves conceivable MT imperfect, yes, but only because we don't print the whole language for the machine to read. Whether MT, with this limitation removed, could be perfected within a finite number of centuries, is a question for the engineers to answer after we have met their challenge to write our grammars and dictionaries in intelligible terms. That challenge is implicit in this book and in the four dozen articles listed in its bibliography. It is not a frivolous challenge; but even if we don't choose to accept it on the engineers' terms, we ought to welcome this stimulation to our proper work.

Language and reality: The philosophy of language and the principles of symbolism. By WILBUR M. URBAN. Pp. 755. London: George Allen & Unwin Ltd.; New York: Macmillan Co., 1939, 2nd impression 1951.

Four articles on metalinguistics [Science and linguistics; Linguistics as an exact science; Languages and logic; The relation of habitual thought and behavior to language]. By BENJAMIN LEE WHORF. (Reprinted from *Technology review* and from *Language, culture, and personality.*) Pp. 38. Washington: Foreign Service Institute, Department of State, 1949.

Reviewed by ROBERT E. LONGACRE, *Summer Institute of Linguistics*

It is no doubt somewhat unorthodox to submit a review of a book published as many years ago as Urban's or of a series of articles already so much discussed

as Whorf's. Nevertheless some justification may be claimed for this review on the grounds that the former has gone all but unnoticed by linguists; the latter have been perhaps more cordially received than they merit; and the writings of the two men so clearly express antithetical positions that they invite a joint review such as that here purposed. This reviewer does not pretend to be neutral in contrasting the positions of these two men (now deceased). His sympathies are frankly with Urban, from whose writings it is possible to draw ammunition for a fresh and perhaps somewhat different assault on the Whorfian hypothesis.

Urban's views on the philosophy of language have scarcely come to the attention of linguists in the sixteen years since *Language and reality* was first published. These have been years in which the attention of linguists has been largely absorbed in the elaboration of the methodology of their own discipline and in the application of those methods to particular languages. There has been, as a whole, little interest among linguists in the philosophic evaluation of the object of their investigations. Furthermore, the mechanistic-behavioristic slant given to descriptive linguistics by Bloomfield has undoubtedly created in some quarters a certain prejudice against anything savoring of idealism, and a predisposition towards logical positivism. For this reason Urban—who argues for the necessity of an 'idealistic minimum' in any adequate philosophy of language, and who writes without inhibition concerning *mind*, *intuition*, *values*, *meaning*, and even *the soul* and *God*—would be initially uncongenial to many.

Whorf's articles have, on the contrary, attracted considerable interest among linguists; in particular, several prominent linguists participated in an interdisciplinary conference (Chicago, March 1953) devoted to a consideration of the Whorfian hypothesis. This is no doubt partly because he writes from the standpoint of a descriptive linguist rather than as a philosopher. A linguist presumably finds it easier to read a work written by a linguist, attempting to relate linguistics and philosophy, than a work with similar intent written by a philosopher. Needless to say, anyone attempting such an interdisciplinary study runs the risk of uttering a few absurdities concerning the discipline in which he is not specifically trained. A linguist is impatient of philosophers who are guilty of linguistic absurdities, but presumably more tolerant of linguists who are guilty of philosophic absurdities, since the latter are not so patent to the linguist. This reviewer is not a philosopher. Nevertheless, it seems to him that Whorf has written some things that are indefensible at least on linguistic grounds if not on philosophic grounds as well. Urban, on the contrary, although voicing an occasional linguistic absurdity, has in the opinion of this reviewer written much that is both good linguistics and good philosophy.

Both Whorf and Urban agree on the importance of language to philosophy, science, and logic. Urban begins his volume (1) with the words 'Language is the last and deepest problem of the philosophic mind. This is true whether we approach reality through life or through intellect and science ... In a very real sense the limits of my language are the limits of my world. Science in the last analysis is language well made.' Whorf is no less insistent on this point (5): 'Whenever agreement or assent is arrived at in human affairs, and whether or not mathematics or other specialized symbolisms are made part of the procedure, *this agreement is reached by linguistic processes or else it is not reached.* ... the

background linguistic system (in other words, the grammar of each language) is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis of his mental stock in trade.'

Here, however, agreement between Whorf and Urban just about stops. Whorf emphasizes the differences among the world's languages, rejects the concept of LANGUAGE over against particular languages, and ends up with a principle of linguistic relativity whereby logic is always relative to a particular linguistic background: 'It may even be in the cards that there is no such thing as "Language" (with a capital *L*) at all. The statement that "thinking is a matter of language" is an incorrect generalization of the more nearly correct idea that "thinking is a matter of different tongues"' (21). 'Natural logic holds that different languages are essentially parallel methods for expressing this one-and-the-same rationale of thought, and hence, differ really in but the minor ways which may seem important only because they are seen at close range' (3). 'Hence, when anyone, as a natural logician, is talking about reason, logic, and the laws of correct thinking, he is apt to be simply marching in step with purely grammatical facts that have somewhat of a background character in his own language or family of languages but are by no means universal in all languages and in no sense a common substratum of reason' (4). From such premises Whorf formulates his 'principle of linguistic relativity': 'We are thus introduced to a new principle of relativity, which holds that all observers are not led by the same physical evidence to the same picture of the universe, unless their linguistic backgrounds are similar or can in some way be calibrated' (5). In passing, note the possibility of a joker in the last phrase; could it be that in spite of the great diversity of the world's languages, they may all be at least partially capable of calibration with each other? May not the pre-eminent translatability of languages point in this direction? And if all languages are capable of at least partial mutual calibration, may we not have right here a 'common substratum of reason'?

Urban, to the contrary, assumes such a universal as 'language' and has entitled his book *Language and reality*—not 'Languages and reality'. (Whorf's third article, consistent with his premises, is entitled 'Languages and logic', but he slips in the title of his fourth article 'The relation of habitual thought and behavior to language'.) To the questions: Is there any such thing as language as such? Are there not after all merely languages and not language? Urban gives an obvious answer: 'Purely empirically there are only languages and not language. Nevertheless, it is about language and not languages that the logician and philosopher talk ... There must be some speech-notion; otherwise we can make no statement about what language is or does' (64–5). (Instructive in this connection is Whorf's slip above, although he strove to confine his discussion to LANGUAGES.) However, it becomes evident on reading Urban's book that he does not stop short with a merely dialectic justification of the term *language*, but proceeds to justify the use of the term on the ground that there are certain deep-seated characteristics common to all languages and constituting a common approach to and partial shaping of reality. He thus speaks of a 'common record of human ex-

perience latent in all language', as well as of certain indispensable 'parts of speech' and 'notional categories' (740)—in addition to more basic concerns such as the basically representational nature of language and its implicit positing of universals. From such premises Urban proceeds to argue for a 'natural metaphysic of the human mind' and characterizes this 'natural metaphysic' as possessing among other traits the 'subject-predicate' and 'substance-attribute' notions (696–700).

Whorf and Urban thus take diametrically opposite points of view regarding the emphasis on language vs. languages. Whorf's relativism inevitably involves him in a certain distrust of language. In this respect his thesis is broadly congenial with the typical 20th-century critique of language (cf. Russell, Whitehead, Wittgenstein, Bergson, Chase, and Korzybsky). Urban, on the contrary, contends for a sort of enlightened traditionalism opposed to what he terms the 'neo-nominalism' of our times with an accompanying 'distrust of language more fundamental than any hitherto experienced' (31). The comparison of the views of Whorf and Urban leads inevitably, therefore, to a consideration of the issue of a 'high' vs. a 'low' evaluation of language.

It seems very probable that ten or fifteen years from now the science of linguistics will be in a much better position than at present to arbitrate such an issue as that here joined. Grammar has not yet come of age in the same sense as phonology. No one is as yet able to write a 'Manual of grammar' comparable, say, to Hockett's recently published *Manual of phonology*. Nevertheless it is such a manual that we will eventually need if we are to know what, if any, grammatical characteristics of language are in some sense cultural universals. Do all languages as a matter of fact recognize a noun-verb sort of distinction on some level? Do all languages have some sort of 'actor-action' or 'subject-predicate' construction (whether expressed syntactically and/or morphologically, with possible admixture of other categories in either term)? Do all languages in some sense recognize a substance-attribute dichotomy (by the very device of having a 'head' plus 'modifier' construction if in no other way)? It seems to this reviewer very possible that all these questions and possibly other similar ones will eventually (with proper qualifications) be answered in the affirmative. At present we lack the data to dogmatize on these matters. Yet these questions, if once answered affirmatively, would at least partially controvert much of what Whorf has written and advance us towards establishing the essential soundness of Urban's contentions—although the latter are sometimes put in a linguistically naive fashion.

One facet of Whorf's criticism of language is his examination of the varying ways in which the vocabulary grids of various languages classify reality. He has a diagram on page 4 in which he shows that while Hopi has but one word for 'flying thing', English has three words: *aviator*, *airplane*, and *insect* (query: what happened to *bird*?). Similarly, Eskimo has three words for various sorts of 'snow' while English has but one. Finally Hopi again has two words for 'water' (water in quantity as in a river, lake, or fountain vs. water in a container such as a glass or pitcher) while English has but one. On the basis of such divergencies as these Whorf argues 'divergence in the analysis of the world' with resultingly different world pictures (6).

It has seemed to this reviewer for some time that there is something essentially trivial in a criticism of language on these grounds. To put the question baldly: Does the fact that in English we use three words *key*, *wrench*, and *faucet* for objects all termed *llave* in Mexican Spanish indicate anything significantly different in the ways an American and a Mexican regard these objects? May it not be—inasmuch as the meaning of a vocabulary item is a function both of the item itself and of the item as occurrent in various contexts—that there is for all practical purposes as good a distinction of the various sorts of objects in Mexican Spanish as in English (aside from possible ambiguity of *llave* in rare ambiguous contexts and the added capacity for punning in Spanish)? There is, in fact, an amazing suppleness in language for describing the 'fullness of reality', and this suppleness is to a large degree due to the shaping and reshaping of vocabulary items to particular contexts. The fineness and adequacy of the items-in-particular-contexts as a descriptive calculus is such that there is probably a sense in which divergencies in the vocabulary grids themselves are ultimately irrelevant. The abstraction and hypostatizing of the 'vocabulary grids' may be the fundamental fallacy.

Urban, in contrast to Whorf, ascribes considerable importance to context: 'This is what we mean by saying that the meaning of a word does not exist apart from its context' (11). Again, 'Every meaning, we have seen, presupposes some systematic context' (195). In this respect Urban distinguishes the immediate context (with its accompanying 'context of situation') from a broader sort of systematic context, viz. the 'universe of discourse', in which, for instance, there are differences of a systematic sort among the languages of the scientist in his laboratory, the man in the street, the poet, and the theologian. 'Such a universe of discourse is both created and maintained by the mutual acknowledgment, on the part of the communicating subjects, of certain presuppositions without which the universe in question has no being, and the particular references in it no meaning' (195–205).

Here certain elements in Urban's treatment of universals become pertinent. He insists that the universals given in the vocabulary of a language are of a PRIMARY and INTUITIVE sort: 'Nouns, verbs, adjectives, are all in a sense names and an element of universality inheres in them all. Lotze insists that this first universal is intuitive, is of a very different character from the ordinary class concepts of logic, and is indeed presupposed by them. Perception itself contains this universal ... The universal is not the product of abstraction and *then* embodied in language' (118).

It is typically modern, and yet (in the opinion of this reviewer) typically beside the point to criticize these primary and intuitive classifications of the universe of phenomena on the grounds that they are inconsistent from language to language or that they are 'arbitrary' or 'fictitious' or 'distort reality'. Such charges can only be made by those who fallaciously hypostatize the vocabulary grids under examination or comparison and who concurrently ignore the calculus-like function of the items-in-particular-contexts. For, as we have already argued, it is when regarded as such a calculus that the amazing adequacy and resourcefulness of language for describing reality becomes apparent.

Urban, however, voices a more fundamental argument against those who thus charge that language 'distorts' reality. Such charges, he asserts, always assume some sort of extralinguistic knowledge of reality against which as a background we can evaluate language. This ignores the fact that reality comes to us inevitably mediated through language itself; we encounter not brute facts but only facts structured by language: '... it is only as the brute given thus actualizes or expresses itself in language that this given becomes in any meaningful and intelligible sense reality' (375). Urban then proceeds to argue that the very variety of the claims made as to the nature of the reality presumably 'distorted' by language should give us pause: 'The entire notion of a language moulded on reality is, then, a gigantic *petitio principii*. It begs the very question that it is the problem of philosophy to solve. That this is so is made manifest by the fact that the philosophies of language described, while agreed on the general proposition that language is not moulded on reality, differ widely as to the nature of the reality on which it is not moulded and on the points at which language diverges' (373). On the one hand, as Urban shows, reality is 'atomistic', and hence 'all organizing integrative elements in language' are the source of the distortion. On the other hand, reality is 'continuous flux', and the elements which cause the distortion are those features of language which 'cut out static states, analyze out atomic elements'. From still another point of view, reality is 'events' (374).

Such considerations as these highlight the need for some exhaustive studies of various parts of the semantic structures of a good sample of the world's languages. Notice, for instance, a comment of Whorf's: 'Man's artifacts and the agricultural products he severs from living plants have a unique degree of isolation; we may expect that languages will have fairly isolated words for them. The real question is: What do different languages do, not with these artificially isolated objects but with the flowing face of nature in its motion, color, and changing form, with clouds, beaches, and yonder flight of birds?' (21). This is eloquently put, but one could argue that even apart from artifacts and artificially severed agricultural products, there are varying degrees of segmentation and discreteness in reality, so that a pebble is perhaps more discrete from the beach on which it is found than blue is from green in the rainbow. In the passage just quoted Whorf has, in fact, implicitly—and gratuitously—made an assumption that reality is something on the order of 'continuous flux', and that any segmentation of this assumed continuum is 'artificial'. It would be instructive in this connection to compare a good sample of the vocabularies of the languages of the world to see what portions of those vocabularies, if any, have relatively discrete terms for items, and what agreement there is as to segmentation of reality from language to language. It would be interesting, for instance, to compare terms for various parts of the bodies of man and animals; it seems inconceivable that there should be languages without terms for 'head', 'tooth', 'hand', or 'foot'. Similarly, in regard to heavenly bodies and other natural phenomena, it seems implausible that there should be languages without terms for 'sun', 'moon', 'star', 'soil', 'water', and 'rock'. A study of terms for color would probably show considerably less agreement in segmentation from language to language, but even here we should not assume without investigation that there may not be certain color contrasts almost uni-

versally posited. To controvert the latter it would not be sufficient to show that a given language uses the same term, say, for 'blue' and 'green', if in phrase formation or compounding 'grass-X' is distinguished from 'sky-X' or something of the sort. Such studies might indicate that Language (with a capital *L*) segments certain phases of reality in a rather consistent manner but other phases less consistently; that this is true of the world of nature both animate and inanimate, as well as of the world of human artifacts; and that this points to a 'natural' segmentation of reality perhaps inescapable for us as human beings.

Another phase of Whorf's criticism of language is of the categorization inherent in different 'parts of speech'. Here Whorf centers his criticism on a few languages—notably the Indo-European—and rejects the notion of necessary and universal parts of speech. Urban, on the other hand, approvingly quotes Whorf's teacher Sapir to the effect that 'No language fails wholly to distinguish at least between noun and verb, although in some cases the distinction is an elusive one.' (Unfortunately the quotation in Urban reduces this to confusion by misprinting 'illusive' for 'elusive'; Urban 87, quoting Sapir, *Language* 126.) Here, of course, the structuralist must carefully define his terms. Some languages, it is true, make no primary or morphological distinction between verb and noun but use the same roots in all sorts of constructions translated now by verb, now by noun in such a language as English. Nevertheless, it seems probable that even in such languages a careful scrutiny of the significant grammatical positions within the clause would reveal that there are certain positions filled by roots in one sort of construction or phrase that are structurally distinct from other positions filled by the same roots but in different sorts of construction or phrase. On some such level as this the verb-noun dichotomy arises again, and with it some sort of actor-action or subject-predicate dichotomy as well.

It is therefore difficult to take very seriously Whorf's criticism that 'Our language thus gives us a bipolar division of nature. But nature is not herself thus polarized' (6). Again we query: How do we KNOW that there is not some sort of segmentation in the nature of things, so that 'things' vs. 'events' is not an entirely unjustified dichotomy after all? Furthermore, if noun and verb are in some sense cultural universals, and if language inevitably thus in some way distinguishes 'things' vs. 'events' or 'activities', must we not accept the fact that REALITY FOR US contains such a distinction? We can answer the latter question affirmatively while still admitting that languages differ widely in their classification of phenomena into these two broad categories. It is only necessary to remind ourselves that the 'thing' or 'event' word is SHAPED by the contexts in which it typically occurs, so that the original class-notion becomes in effect a point of departure from which the descriptive calculus that is language proceeds to elaborate by items-in-contexts a system varied and rich enough to express the 'fullness of reality'. Here, as in the case of mutual skewness among vocabulary grids of different languages, we need to insist that a language is not utterly at the mercy of its own distinctions and categories, but has within itself resources for outstripping and transcending those categories. Thus, *stone*, *spark*, *birth*, and *time* are all nouns in English but are shaped by the contexts in which they habitually occur to quite different sorts of 'things', so that on a moment's reflection it is

evident that *stone* and *birth* are not 'things' in quite the same sense. Similarly, *jump*, *dwell*, *happen*, and *represent* are various sorts of 'events' or 'activities', so shaped to the contexts in which they habitually occur that the original class-notion becomes very elusive and supple. We see that in the same language, certain nouns approach to some degree the sort of meaning involved in the class-notion of verbs, and vice versa. This is not an effort to deny the reality of class meaning, but is intended simply as a reminder that a language is not at all in the unfortunate position of being hopelessly fettered by the categories that it assumes as points of departure. Urban has some pertinent remarks on this point: 'We may speak of a sneeze, or of a mountain, and by virtue of so speaking of them, postulate their integrity as things. A sneeze is doubtless a thing in a different way from that in which the mountain is a thing. In principle, however, there is no reason why there should not be many kinds of individuals and substances, and so far as the fundamental notion is concerned the period of duration seems irrelevant' (291). What we have just considered applies as well to differences between languages in classifying the same sort of phenomena as 'thing' in one language and 'process', 'event', or 'activity' in the other. The disparity between such classifications probably seems considerably greater when the items are wrenched from context than when the cross-language comparison takes context into account.

I now turn to examining in particular some of the linguistic data cited by Whorf in confirmation of his hypothesis.

(1) Whorf denies that noun and verb or any such parts of speech are cultural universals. He in particular cites Nootka as a language where 'we have, as it were, a monistic view of nature that gives us only one class of words for all kinds of events' (6). This is an interesting claim in view of Sapir's thesis that noun and verb are in some sense cultural universals. Furthermore, Sapir himself was well acquainted with Nootka, which he cites in his volume *Language* as much or more than any other 'exotic' language. In the same volume (141–2) Sapir discusses in some detail a Nootka root *inikw-* 'fire' which 'is really as much of a verbal as of a nominal form' (141). Similarly ambigous are the constructions *inikw-ihl* 'fire in the house' or 'burns in the house', *inikw-ihl-'minih* 'fires in the house' or 'burns plurally in the house', and even certain longer constructions involving the above plus *-'is* diminutive and *-it* preterit. These, then, are data of the sort on which Whorf bases his claim. Nevertheless, this is not the entire story, for constructions of this sort do become unambiguously noun or verb when a suffix is added that is peculiar to either type of construction: 'For example, *inikw-ihl-'i* with its suffixed article is a clear-cut nominal form, "the burning in the house", "the fire in the house"; *inikw-ihl-ma* with its indicative suffix is just as clearly verbal, "it burns in the house"' (Sapir, *Language* 142). Thus the noun-verb dichotomy is pertinent to Nootka after all—although admittedly on a different level from English.

(2) In introducing his article Languages and logic, Whorf begins with a consideration of 'sameness' or difference in sentences in English vs. Shawnee, and in English vs. Nootka. In his second English example (English vs. Nootka) he makes a great deal of the claim that to both the linguist and the logician there is

very close similarity between the following English sentences: *The boat is grounded on the beach* and *The boat is manned by picked men*. Whorf states that in English these two sentences (and the logical propositions expressed in them) are very similar, but that the translations of these sentences in Nootka (and the logical propositions expressed in the Nootka sentences) are very different. This reviewer, at least, is disturbed by the suspicion that the assumed similarity between the English sentences may be a rather superficial one. Are *is grounded* and *is manned* in fact grammatically parallel in these sentences? It appears that on some grounds they are quite different. In terms of the sort of grammatical transformations suggested by Harris, it could be noted that *is grounded* does not seem to be a transform of such a phrase as *so-and-so grounded (something)* and is therefore not a 'passive' construction parallel to *is manned*. We probably would not normally say in English *The boat is grounded by them on the beach* but *The boat was* (or *has been*) *grounded by them on the beach*. In terms of Pike's approach to grammar it could be stated that *is grounded* and *is manned* are gramemically different, the first being some sort of 'equation-state' construction and the second a 'passive' one. Having pointed out the possible superficiality in the purported similarity of the English sentences, this reviewer is reluctant to accept at face value the purported similarity in the Shawnee sentences translated so differently in English as *I pull the branch aside* and *I have an extra toe on my foot* (18). The distinctions in meaning and form evidently hinge only on the presence of a morphemic difference in the last syllable or so of the two utterances, but this difference may be the clue to a rather profound grammatical difference between the two utterances. For just as two phonetic segments may be phonetically very similar though phonemically distinct, so two utterances may be very similar in terms of component morphemes but grammatically different.

(3) Similarly doubtful is Whorf's thesis that in Nootka 'the sentence without subject or predicate is the only type'. This is based in turn on the premise that 'Nootka has no parts of speech' (22). But this premise, as we have shown above, is at best a sort of half-truth; and having cast doubt on Whorf's premise, it is not strange if we refuse to accept his conclusion. Sapir, it should be noted, in the same passage in which he voices his belief in the universality of some sort of noun-verb distinction, voices a similar claim regarding subject-predicate: 'It is well to remember that speech consists of a series of propositions. There must be something to talk about and something must be said about this subject of discourse once it is selected. This distinction is of such fundamental importance that the vast majority of languages have emphasized it by creating some sort of formal barrier between the two terms of the proposition' (*Language* 126). Here again, however, we must wait for more extensive grammatical sampling of the world's languages before deciding the status of subject-predicate (broadly conceived) as a cultural universal. Meanwhile it seems plausible that such a distinction in some form may be pertinent to every language, in that predication per se seems to be part and parcel of discourse. This does not mean that the primary structural break in the clause must in every case be between the subject and everything else lumped into a 'predicate'; but it does mean that in such clauses there is one spot which may be called something like a 'subject' spot,

and another which may be called something like an 'action' or 'predicate' spot, with or without further positions.

This reviewer cannot escape the feeling that Whorf has overstated himself in these articles. Differences among language structures have been magnified out of proportion to the facts of the case, and in the process LANGUAGE has been subject to suspicion and disparagement. Whorf's last article in the series, The relation of habitual thought and behavior to language, on the other hand, is marked by a caution and breadth not characteristic of the other articles. This is especially evident in the following passage: 'Concepts of "time" and "manner" are not given in substantially the same form by experience to all men but depend upon the nature of the language or the languages through which they have been developed. They do not depend so much upon *any one system* (e.g., tense or nouns) within the grammar as upon the ways of analyzing and reporting experience which have become fixed in the language as integrated "fashions of speaking" and which cut across the typical classifications so that such a "fashion" may include lexical, morphological, syntactic, and otherwise systemically diverse means coordinated in a certain frame of consistency' (44). Again, 'There are connections but not correlations or diagnostic correspondences between cultural norms and linguistic patterns' (45). But even in this article it is necessary to criticize the lame start in the section entitled 'The name of the situation as affecting behavior'. The fact that the verbal confusions resulting in certain 'behavioral compulsions' (like carelessness resultant on 'empty' gasoline drums which nevertheless contained inflammable vapors) are so easily corrected by Whorf in simple verbal paraphrase demonstrates that we can have here no valid criticism of language as such but only of its use in certain situations. It is scarcely an argument against a tool to point out that it has been wrongly or carelessly used. Again, Whorf's facile account of the origin and growth of certain notions presumably typical of 'Standard Average European'—such as 'metaphysical reference of spatial to non-spatial', substance, and 'objectified time' (43)—must be rejected as a rather gross oversimplification. In particular, the substance notion may be ingrained in language as such and not be just a peculiarity of Standard Average European.

In closing this composite review it is only right to mention one central thesis of Urban's thinking as expressed in *Language and reality*, viz. the desirability of a 'high' evaluation of language. Coupled with this is a theory that the history of western culture 'must be understood as an age-old conflict between two great evaluations of the word, which we have described as the high and the low' (32). To this reviewer, to whom the 'high' view of language is more congenial, Whorf is simply one symptom of the typically modern distrust of language—though a symptom of peculiar interest to linguists. Yet it would be foolish to brush aside Whorf's investigations as wholly irrelevant. He is at least to be commended for having provoked a lively and profitable discussion concerning the interrelationships of language and other aspects of culture. Furthermore, even for one who believes that there are features shared by the world's languages and that these features constitute a common approach to reality for all mankind, there can be no objection to investigating the features peculiar to each language and con-

stituting its peculiar approach to reality. It is to be hoped that the latter sort of investigations will be carried on with a thoroughness and breadth exceeding that of these *Four articles on metalinguistics*. Whorf himself, it should be remembered, died before his investigations were more than begun. We should keep in mind, however, the necessity for investigating not only the features peculiar to various languages but their common features as well. This reviewer suspects that by the time the Whorfian hypothesis is modified enough to be acceptable both to linguists and to philosophers (not to mention students of other disciplines) it will be so changed as to have lost a considerable amount of its original steam and free-wheeling confidence.

Unity and language: A study in the philosophy of Johann Georg Hamann. By JAMES C. O'FLAHERTY, [with an introductory note by Walter Lowrie]. (University of North Carolina studies in the Germanic languages and literatures, No. 6.) Pp. x, 121. Chapel Hill: [University of North Carolina], 1952.

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Hamann was, among other things, an 18th-century German structural linguist who argued that 'form cannot be divorced from content, and, indeed, form is to a very great extent determinative of content' (17). This fact has motivated the present study of him by James O'Flaherty—a distillate of O'Flaherty's doctoral dissertation, done in 1950 at the University of Chicago under Wilhelm Pauck, well documented with allusions to contemporary linguistic theory, contemporary and 18th-century philosophical theory, and culture-historical theory. The complexity of the material in combination with the doctoralese diction makes the reading difficult at times. The copious translations of Hamann are welcome additions, for he is otherwise almost inaccessible in English. They are often quite literal, however, and thus tend to obscure rather than clarify his meaning.

A study of Hamann at this particular time is arresting for two reasons: the general hostility of contemporary American linguistic research to psycho-philosophical theories of the 'mentalistic' kind such as Hamann's, and Hamann's virtually complete annonymity in Anglo-American culture, except in the vague and exotic terms of 'the Magus of the North' who coined the extravagant dictum that 'poetry is the mother-tongue of the human race'. Less well known to Anglo-Americans, if known at all, are such pregnant statements of Hamann as these: 'In the language of a people we find its history', and 'senses and emotions speak nothing but images. The entire treasury of human knowledge and felicity consists in images' (13). Walter Lowrie, who wrote the Introductory Note to the volume under review, regards Hamann as 'the most enigmatic writer since Lao-tze and Herakleitos', and has elsewhere (*Johann Georg Hamann: An existentialist* [Princeton, 1950]) associated him with the existentialist tradition.

The chief assumptions underlying the study are two. First, central to the thinking of Hamann is the proposition that natural or ordinary language, i.e. 'the historically developed vernacular of any people and likewise all poetic treatments of such a vernacular' (16), is the unique and exclusive catalyst of all cultural phenomena, viz. 'language as the prismatic medium through which Hamann saw