ARE EMIC DICTIONARIES POSSIBLE?[1]

An Experiment with Karam, a New Guinea Highlands Language

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Everyone is familiar with the controversy which followed the appearance, in 1961, of Webster's Third New International Dictionary. Almost the only reviewers who greeted it favourably were descriptive linguists and (to a lesser extent) lexicographers. Most other critics were disturbed by the fact that the editors took particular pains to make their entries "descriptive" - in two senses of this word.

First, Webster's insisted that their main job was to record current usage, and current judgments about usages, without passing any opinions about the correctness or otherwise of such usages and judgments. This approach upset those who regard Webster's as a Book of Laws about English to be consulted the way a lawyer consults the statutes, and led reviewers to speak of an "abdication of authority" by the editors. Here, of course, we are speaking of descriptiveness in the sense of describing without prescribing.

It is however, the second kind of descriptiveness and the objections raised against this, that interests me here. Several reviewers were troubled by the way Webster's went about describing the meanings of certain familiar words. A definition which particularly aroused the wrath of the Washington Post was that given for "so simple an object as a door." According to Webster 3, the central meaning of door is

> "a movable piece of firm material or a structure supported usu. along one side and swinging on pivots or hinges, sliding along a groove, rolling up and down, revolving as one of four leaves, or folding like an accordion, by means of which an opening may be closed or kept open for passage into or out of a building, room or other covered enclosure or a car, airplane, elevator, or other vehicle."

The Post called this "pretentious and obscure verbosity."[2] However, Bergen Evans has pointed out that aside from asserting that "accuracy and brevity are virtures", the Post "fails to explain what is wrong with the definition, [hence] we can only infer...that the writer takes the plain, downright, man-in-the-street attitude that a door is a door and any damn fool knows that" (Evans 1962, p.59). He remarks that the Post writer has

"walked into one of lexicography's biggest booby traps: the belief that the obvious is easy to define. Whereas the opposite is true. Anyone can give a fair description of the strange, the new, or the unique. It's the commonplace, the habitual, that challenges definition, for its very commonness compels us to define it in uncommon terms" (p.60). He goes on to show that a comprehensive definition, one which covers all the objects which English speakers now regard as doors, can scarcely be any less complex than the one found in Webster 3.

It seems fairly clear that, for the purposes of the ordinary user, Webster's procedures for defining meanings are too complex and systematic. The ordinary native-speaking user already knows the meanings of all the common words in his language, and he does not want these to be explained. Rather he wants these used as reference points for the definition of unfamiliar words. When he comes across an unfamiliar word the practical man does not want a lengthy technical definition, but instead looks for a more familiar equivalent word or phrase.

Most dictionaries, understandably, cater to the needs of the majority. My Concise Oxford, for instance, defines help as meaning aid, assist, and then goes on to define aid as help, and assist as help (person, process...). The assumption, presumably, is that any reader ought to know at least one of these three synynoms; and so long as this assumption is correct then for practical purposes no harm is done by having the definitions move in such tight little circles. The familiar dog is less adequately defined by the Concise Oxford as a "Quadruped of many breeds wild and domesticated". No information is given that would distinguish dog from half a dozen other such quadrapeds; dogs are apparently so familiar that it is a waste of time to describe them to the ordinary dictionary user!

Webster 3 certainly tries to avoid the 'tight little circle' in its definitions, and succeeds in making them reasonably exhaustive and informative. But I fancy that most linguists would argue that - far from being too systematic in its treatment of meaning - Webster 3 is not systematic enough. In trying to please both the layman and the scholar, Webster 3 (and the other great dictionaries of English) fall between two stools.

The question arises just how a systematic dictionary should go about defining meanings. By 'systematic' here I mean a dictionary which provides thorough definitions of those semantic catergories and relationships that are significant to the native speaker of the language. One might call this an "emic" dictionary.[3] As there apparently are no systematic dictionaries we may also ask whether it is possible, in principle, to treat meaning systematically at the present stage of linguistic knowledge. Finally, supposing

that it is possible in principle, we may ask whether it is possible, in practice, for a linguist or a team of scholars, to systematically describe the entire lexicon of a language, or even any sizeable part of it.

In trying to answer the first question it may be instructive to look at a reasonably systematic entry in an ordinary dictionary, and register first impressions as to what is good or bad about it. Consider the Concise Oxford's entry for make as a verb. Omitting most of the illustrative examples and other details not relevant here, we find that the first six uses of make are described as follows:

1. Construct, frame, as God made man...
2. Compose, draw up, (book, will).
3. Prepare (tea, coffee, beds...)
4. Cause to exist, bring about (disturbance, sport, one's mark in the world, a corner in wheat,...)
5. Result in, as it.....a difference.
6. Establish, enact (distinctions, rules, laws...

The first thing that strikes one is that although the numbered sub-entries are obviously regarded as referring to related uses of the same word, no attempt is made at a general definition, one which states what is common to some or all of these uses of make. There must, however, be something that provides the basis of our feeling that we are dealing with different uses of the same word. A systematic dictionary should surely try to make explicit the basis of those intuitions which all native speakers seem to be agreed on. In this case I would suggest that common to the above uses of make is the idea of creating something, causing some new state or object to come into existence. This is, essentially, the same as usage 5 in the Concise Oxford definition.

Second, the entry seems to give us more immediate information about the grammar rather than the meanings of make. What we are provided with is a list of partly synonymous forms (construct, frame, cause to exist, etc) together with some indications of the syntactic environments in which the near synonyms can be substituted for make without substantially changing the meaning. Thus, from 3 we can infer that it is correct to say prepare the tea, prepare the bed (as paraphrases of make the tea, make the bed), while 3 and 6 together suggest that establish the tea, or enact the bed are probably wrong or mean something different from the above; and so on.

Here the dictionary has given us useful (but not exhaustive) information about the selectional restrictions and equivalence relations holding between make and its near synonyms. It has told us that, in certain contexts, make, construct, etc. mean the same

thing and can be substituted for one another. One's first impression, however, is that it has not told us what it is that these words mean.

This reaction is obviously based on the fact that the definitions are circular. Familiar words are used to define the meanings of other familiar words. When the circularity is narrow - as in the case of aid=assist=help - then we somehow feel that it is not illuminating. A definition that moves in a wider circle - such as the one given for door by Webster 3, seems to be more informative. But how does this relate to being 'systematic'?

Weinreich, one of the most incisive writers on semantics, asserts that "circumlocution" is not...a 'makeshift' device for stating meanings, but the legitimate device par excellence." (1963 p. 153). Furthermore, Weinreich states that "the province of linguistic semantics is the study not of denotation or reference, but of the designational system proper to each language" (p. 152). By designational system he means the inter-relations of the designators (sign-vehicles or forms) and the designata (the set of conditions for the use of signs, the set of situations which given signs may properly denote).

The descriptive linguist, applying the standards he imposes, say, on phonological analyses, would surely agree that in defining any system, some circularity is not only inevitable but necessary. A system, by definition, consists of inter-related parts playing some role relative to each other. In phonology, for instance, the linguist concerns himself chiefly with those sound features that contrast with each other in that substitution of one feature for another is capable of causing a difference of meaning.

On the other hand, until recently, descriptive linguists believed that systematic ('emic') description of phonology involves not only describing the relative values of sound features - the value of the differences between two sounds have to the native speakers - but also describing the absolute phonetic values of the features. Linguists who still adhere to this doctrine will probably be troubled by the thought of systematic ('emic') semantic analyses which describe only the relative values of meanings, without also assigning absolute values to the semantic features involved. Just as the linguist uses the metalanguage of phonetics to describe the articulatory correlates of the features voicing or nasalization, so he may expect the semanticist to describe just those situations which are denoted by a given semantic feature, such as, say, male. Not only should the dictionary state that male is the opposite of female, that it is included in the category sex, but not included in other categories such as inanimate or dry, that it occurs in combination with such other semantic

features as ancestor, 1st generation ascending (as in the word father), and so on. It should also state the physical conditions which any object or situation must meet before it can be referred to by a word involving the feature male (cf. the definition of door by Webster 3). It seems clear that for much of the lexicon, linguists are quite unable to offer exhaustive descriptions of the denotata of words. If we impose this condition, then emic dictionaries are not possible. Consider the problems involved in specifying the denotata of the words beautiful, adversely, or two.

On the other hand, if we regard an emic dictionary as one which systematically describes the relative values of meanings (defined in terms of the judgments of native speakers of the language) then I think that, even within the present limitations of semantic theory, it is already possible, in principle, to produce a fair approximation of such a dictionary. The dictionary should describe all such relations as synonymy, antonymy, inclusion, exclusion, etc. holding between words in the lexicon. Recent work in semantics suggests that a more systematic and insightful analysis will be achieved if the meanings of words are analysed into features; so that we can specify not only identity or non-identity of meaning, or inclusion or non-inclusion, but can point to particular semantic features which are responsible for these relations, and for such relations as near-synonymy, near antonymy, etc.

I turn finally to the question of whether, in practice, it is reasonable to expect linguists to produce dictionaries that are emic at least in this last sense. I will discuss the recent experience of a team of investigators working on Karam, a New Guinea Highlands language. The team consisted basically of two social anthropologists and two linguists, with assistance from over 20 specialist consultants in the natural sciences and investigated most of the lexical domains of Karam. Some domains were studied more exhaustively and systematically than others, in particular, the terms for flora and fauna, and to a lesser extent, other parts of the natural environment, kinship, verbs, bodily processes, and location and direction.

One of the anthropologists, Ralph Bulmer, has spent over 12 months in the field investigating the Karam's perception of their natural environment, and has had extensive assistance, in the field and elsewhere, from botanists, mammalogists, ornithologists, herpetalogists, entomologists and specialists in several other invertebrate groups, and geologists.

The cost of this part of the enterprise has been considerable, both in terms of time and money, but the results obtained seem to me to be extremely impressive. Although the variables involved in the Karam classification of plants and animals turn out to be much more complex than the natural scientist (working mainly on morphological criteria) would expect (see Bulmer 1967, 1968a, 1969, Bulmer & Tylor, 1968), at least the investigator has the advantage here of working with a lexical domain that is highly structured. Terms for flora and fauna fall into a system with from two to five levels of contrast. Furthermore, there is the advantage that the variables involved include observable morphological features (among other things) and it is relatively easy to obtain judgments about the class-membership and properties of specimens.

Typically, a dictionary entry for a natural history term will include a general definition, together with a statement of its relationship to other terms (place in the hierarchy, synonyms, a list of its sub-categories, etc.). The entry for yakt, for example, begins as follows:

> yakt Generic tax. inc. all birds except cassowaries, and all bats. Contrasts with kobty (cassowaries), kmn (game mammals) as (frogs and small terrestial mammals), kopyak (rats) jon, (ORTHOPTERA), gogaj (LEPIDOPTERA), etc. Subcategory names, all of which may be preposed by yakt include..."

(then follows a list of about 170 names for categories of birds and 9 names for categories of bats. Under each of these terms will be found a similar statement of the categories to which they belong, and a list of their subcategories; and so on).

This hierarchical structuring is not so evident in other areas of Karam vocabulary, but each domain is structured to a lesser or greater degree, and in various ways. A systematic description of the kinship terminology can be given, following the usual procedures of ethnographers, by defining the relationship to Ego of a set of terms, and then defining the relationship of all other terms to this first set or to other terms defined against this set. For instance, ay is "Sister, female cousin (parallel or cross), man speaking; sister or female parallel cousin, woman speaking." Having thus defined ay it can then be said that Ego applies the term amkan to "all women whom mother (amy) calls ay".

Terms for actions, processes and states seem to be more susceptible of systematic analysis in Karam than in most other languages, (Pawley 1969: 27-35). Almost any such

term falls into one of a small number of higher level categories (for example, mnm talking, kmap singing, swk laughing, mokbel belching, tmwk thundering, bw exploding, and other terms for kinds of noises, are all grammatically marked as sound-making events: each specific term for a kind of noise must be accompanied by the verb ag - 'to sound' e.g. 'to talk, speak' is 'to utter talk' mnmag). Bodily process terms form a hierarchy with three to five contrasting levels. An entry for a Karam term of eventation (not necessarily a verb), then, will include a general definition, a list of the higher level categories to which it belongs, and a list of the lower level categories which belong to it, as well as information about synonymy, antonymy, etc.

However, most of the Karam lexicon has not received such methodical treatment. Terms for flora and fauna account for well over 1,000 entries, and verbal forms for another several hundred. The vast majority of other terms - nouns, adjectives, etc. - appear to belong to fairly loosely organised semantic domains, and systematic analysis of them would require far more time than we have been able to afford (some of the difficulties in defining Karam colour terms are discussed in Bulmer 1968b).

These other terms have been treated more or less as they would be in a normal bilingual dictionary. Webster 3 defines a bilingual dictionary as "a reference book giving for words in one language equivalents in another". In this instance each entry consists of a set of English translation equivalents of the Karam terms and mention of some of the more obvious relations with other forms (synonymy, antonymy, mainly), if any have been discerned. Sometimes the particular syntactic-semantic context in which one particular English translation rather than another is required has been specified, but this information has not been systematically provided.

In addition, a general definition is often provided, by extracting out the common features of the related usages. Such a definition should have more predictive power than a simple listing of observed usages. For example, in pre-European times the word gop was used to refer to wooden or cane pegs used for hanging up string bags and other portable property. However, the important thing about gop was not the material they were made from, or the particular objects that were attached to them; it was their function as 'attaching' or 'fastening' agents. A general definition should have been able to predict that gop would now be applied to such introduced objects as hooks, coathangers, safety-pins, bolts, keys, clothes-pegs, etc.

The Karam case seems to me to indicate that it is possible for a team of investigators

to make a fair attempt at a systematic analysis of a substantial part of the lexicon of a pre-literate speech community. I think we must conclude, however, that such a goal will normally be beyond the resources of the anthropological linguist. The organizational problems in getting together a large group of specialists, and the sheer financial outlay, are so great that we cannot expect to see very many systematic dictionaries produced in the near future.

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FOOTNOTES

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2. Washington Post, January 17th, 1962.

3. The term 'emic', coined by Kenneth Pike, refers to attempts to represent a cultural system as seen through the eyes of one who is native to the culture. It is contrasted here with attempts to describe behaviour by translating it into the terms of another cultural system, or to describe it with the 'objectivity' of the physical scientist.

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