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Language and Living Things: Uniformities in Folk Classification and Naming by Cecil H. BROWN

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REVIEW ARTICLE

TREES, GRERBS, WUGS, SNURMS AND QUAMMALS: The New Universal Natural History of Cecil H. Brown

BROWN, Cecil H.: *Language and Living Things: Uniformities in Folk Classification and Naming*. New Brunswick, Rutgers University Press, 1984. xvi, 306pp. Price US \$35.00.

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Cecil Brown seems set to become the George Peter Murdock of cognitive anthropology, dedicated to the discovery of universals in human classification and building up a vast cross-cultural data bank in aid of this project. The many papers that have flowed from his production line over the past decade, which he has most generously circulated in pre-publication form to interested colleagues, have been variously devoted to colour classification, anatomical terminology, terms of orientation, time concepts and, especially, folk-classifications of plants and animals, one aspect of which is the topic of his new book.

Incorporating and revising material from earlier publications, *Language and Living Things* is his, and the discipline's, first book-length attempt to survey folk-biological classifications on a global scale and come up with general statements as to how human beings categorise plants and animals. The book is well organised, cogently written and not too long. For these reasons it should reach a wide audience, including many readers who are not specialists in its field. Its main conclusions are simple and memorable: that all human cultures either recognise, or are on their way to recognising, five broad classes of plants (trees; grerbs, i.e. small herbaceous plants; grasses; vines; and bushes) and five broad classes of animals (fish; birds; snakes and/or worms; wugs, i.e. insects and other miscellaneous little creatures; and mammals, a class extended to include other terrestrial quadrupeds of significant size); and that over time human languages acquire terms for these classes in non-random order. Thus, according to Brown, the first general plant class term acquired almost always approximates to "tree", followed by either "grerb" or "grass"; while the first three general animal terms acquired approximate to "bird", "fish" and "snake", though in no necessary particular sequence.

Before these findings pass into the accepted wisdom of popular anthropology and natural history, it seems desirable that they should be closely scrutinised. Briefly, in the present reviewer's opinion Brown is at best half-right. His generalisations about plant classifications seem better supported than those about classifications of

animals; and even in respect of plant categories, his historical speculations should be treated with reserve.

Brown's thesis is that the regularities in human classification that he asserts reflect the facts of nature, in that the great majority of the world's plants and animals that are large enough to be perceived by human beings as significant fall naturally into the 10 classes that he specifies. These constitute large "discontinuities in nature" (Ch.2). Thus, his argument runs, there is an inevitable tendency, over time, for human languages/cultures to give formal recognition to these classes. It will be argued below that Brown's assertion that the groups he recognises form *natural* discontinuities is in part erroneous, and that even where such discontinuities clearly exist they provide a quite inadequate explanation for the regularities, and irregularities, of human classifications. However, one can to some extent separately evaluate Brown's evidence for cross-cultural regularities and his explanations for the regularities that he discerns.

Language and Living Things, which in argument and format follows the model of Berlin and Kay's *Basic Color Terms* (1969), includes over 130 pages of summarised case material on plant categories in 188 languages and on animal categories in 144 languages. Neither the unit "languages" surveyed nor the ethnographic and linguistic studies that Brown draws upon are in any strict sense comparable. In practice his cases appear to range from the idiolects familiar to a single informant (Brown himself, reporting "American English") or to one or two bilingual informants reporting on other speech communities with many millions of members and, it may be assumed, much internal diversity in cultural practices and linguistic usage, to putatively homogeneous village communalects or local regional dialects reported by ethnographers with a special interest in folk biology. Many sources are field reports by linguists who doubtless, in most cases, have a good grasp of the general features of the languages they have studied, but who may not have paid particularly close attention to animal and plant classifications. The overwhelming support that this case material lends to Brown's formulations cannot therefore be accepted at face value, even though some important points must surely stand.

Extrapolating from Brown's tables (pp.25, 26) we find that 99% of his sample plant vocabularies are reported as having a term for "tree", 77% a term for "grerb", 65% for "vine", 49% for "grass" and 20% for "bush". Of the animal vocabularies, 96% are represented as including terms for "snake", 92% for "bird", 88% for "fish", 37% for "wug" and 35% for "mammal". Examination of the case material may tempt the reader to reduce these percentages. For example, 17 out of 133 "bird" taxa in fact exclude at least some wild flying birds, while four others exclude domestic and/or large flightless species. Twenty-four cases extend the "bird" class to bats, and five to some or all flying insects. Six "snake" taxa either do not apply to "true" snakes because these do not occur in the environments of the language-communities concerned, or exclude certain species of snake that are locally present. Twenty-three other "snake" classes variously include other reptiles, eels, worms and other kinds of invertebrates. At least 19 of the 50 "mammal" classes exclude some conspicuous terrestrial species which are, zoologically, true mammals. These kinds of variations are almost certainly under-reported in the case material, because of the uneven detail and quality of the original ethnographic sources.

Following Berlin (1972), Brown refers to the 10 classes on which he focuses as

“life-forms”. It is certainly a convenience to have a term for such major groupings as are recognised in folk-taxonomies, and “life-form” seems destined to join such terms as “clan” and “totem” in the standard vocabulary of anthropology. But, as with these other useful terms, it has turned out to be difficult to give “life-form” a precise definition for use in comparative generalisations. Following the precedents of botany, whence Berlin obtained the term, life-forms should be definable strictly in terms of morphological characters; yet the most general classes recognised in folk-taxonomies are seldom neatly and exhaustively defined by morphological characters alone. More difficulties arise when additional criteria of taxonomic rank, polytypy, and lexemic status of terms for life-forms and for taxa of immediately subordinate and superordinate rank are proposed (Berlin, Breedlove and Raven 1973:215, 1974:25–7), and on all these points Brown finds it necessary to admit some deviation from Berlin’s definition.

Thus, firstly, although the majority of folk-taxa Brown considers are reported as meeting Berlin, Breedlove and Raven’s requirement that they occur at “level 1” of ethnobiological folk-taxonomies (i.e. with the only possible higher-order taxon being one that corresponds to “plant” or “animal”), a significant minority, mainly of “grass”, “snake” and “fish” taxa, occurs at lower levels. Secondly, although Berlin and his colleagues imply that “life-form” taxa should be extensively polytypic, containing a significant proportion of all named taxa of lower order that are recognised in the systems in which they occur, Brown is prepared to accept, for his purposes, some taxa which do not conform to this pattern. Many of his sources appear not to have provided any clear indication of the extent of polytypy of taxa cited, but it seems that some examples, notably of “snake” and “fish” taxa from languages spoken in regions where few species of these classes are present, may only contain two or three named subdivisions. Thirdly, Berlin *et al.* require that at least one of the immediately contained subdivisions of a life-form is named by a primary lexeme, meaning in practice that its name should not consist of the term for the life-form plus a modifier. In a minority of cases where it suits him to do so, Brown also ignores this stipulation.

Brown does, however, exclude from his tabulations taxa for which no named subdivisions are reported. These are often cases where certain kinds of, for example, grasses have their own names while there is a further term which applies exclusively to the residue of grass forms which are not individually named. Brown refers to these cases as “Incipient Life-forms”.

While acknowledging that “life-forms” other than the 10 he schedules may be recognised in some languages (e.g. palm, fungus, seaweed, frog, shellfish) he excludes these from consideration because the organisms concerned either are restricted in their regional and local distribution or do not appear to Brown to be of pan-cultural significance to humans. This leads to the curious situation in which a linguist needs only to have reported two kinds of snakes for a language to be credited with a “snake” life-form, while “frog” or “shellfish” taxa with 20 or more named subdivisions may be ignored in Brown’s synopses of case material (e.g. Mele-Fila, p.224; cf. Clark 1981).

Thus, even when folk-taxa are reported as corresponding neatly in their content to Brown’s designated classes, they appear to vary considerably in their importance. Some, especially “tree” and “bird” taxa, refer to classes with scores or even hun-

dreds of named subdivisions whereas others, especially "snake" and "fish" taxa where the creatures included are not prominent in the environment, have in some cases only two or three named subsidiary groups. And, as noted, Brown also finds some variation in the taxonomic level at which his "life-forms" occur. Deviations of this kind would also probably be extended if Brown's source materials were more complete. It is notable that many of the cases which Brown finds problematic in relation to his own and Berlin's typologies derive either from the work of ethnographers who have made intensive studies of folk-biological classifications, or from languages on which two or more linguists or ethnographers have independently worked and produced discrepant accounts.

One strong general impression that survives the present reviewer's nit-picking examination of Brown's case material is that his formulae apply much more neatly to plant than to animal classifications. His initial definitions of his five plant classes (pp.13-14) require, on average, less than two lines each; those for his five animal classes (pp.15-16) are so qualified that each requires about five lines. In fact, his animal definitions take him so far beyond both scientific zoology and much contemporary popular English that not only "wug" but also all four other classes merit new labels: I suggest "birt" (bird + bat), "finnal" (fish + marine mammal), "snurm" (snake + worm), and "quammal" (terrestrial quadrupeds: mammals + quasi-mammals). In spite of this, his case material throws up far more deviant cases of animal taxa than of plant taxa. Further, he can reduce his 188 plant vocabularies to only 14 combinations of terms ("tree" alone, "tree" + "grerb", "tree" + "grerb" + "vine", etc.) whereas his smaller corpus of 144 animal vocabularies requires him to recognise a sixth class (combined "wug-mammal") and present 17 combinations.

Given Brown's assertion that these folk-taxa reflect objective discontinuities in nature, this is paradoxical. For there are surely no sharp lines in nature between trees and bushes, or bushes and grerbs, or, in many environments, between vines and trees or bushes and grerbs; or between grasses and grerbs or vines. In contrast, birds and, in many human environments, such creatures as bats, snakes, lizards, frogs and fishes (the list could be extended) do constitute quite distinctive natural groupings. Obviously, as Brown recognises, cross-cultural diversity in animal taxonomies in part reflects the fact that different zoological orders are very differently represented in different regions. Yet, even among peoples speaking related languages and occupying adjacent territories with broadly similar faunal lists, there is considerable variation in the ways in which the animal kingdom is partitioned. If plants, which are in nature continuous, are partitioned by human languages in relatively uniform ways, whereas animals, which are in nature discontinuous, are partitioned very diversely, this surely suggests that there is a far greater measure of pan-cultural uniformity in human interaction with, and perception of, plants than there is in human relations with animals. In other words, while the folk-biological taxa which Brown surveys necessarily bear some relationship to discontinuities in nature, most basically they reflect culturally determined human interests and concerns and thus in innumerable instances the continuities and discontinuities of nature are at least partially ignored.

Further points in support of this argument are that, as a number of authors have already noted, "grerb", "vine" and "grass" taxa typically exclude cultivated plants

that, in terms of morphology, should fall within them; and, as Brown indicates, terms for “tree”, “grerb”, “grass” and “vine” frequently also apply to “wood”, “weed” or “undergrowth”, “thatch” and “rope” respectively, all of which suggests widely shared cultural imperatives for recognition of these classes. But there are other obvious reasons why these kinds of taxa should be widely applied. As Brown points out, size of vegetation relative to human size is important. Large plants can obscure vision, offer concealment and shelter, be climbed, and require different techniques and degrees of effort to clear than smaller plants do. Also probably of greater importance is that though, looked at in the abstract as collectivities of species and genera, plants present continuously graded series in size and shape, plant associations such as forests, grasslands, scrub and swamp often do show sharp spatial discontinuities which are of great significance to human beings. There is an understandable tendency to identify plant communities with the particular tree, bush or grass species or genera which either dominate them or are distinctive of them and are of particular cultural importance. These species or genera are likely to be salient in folk taxonomies, and in some cases will be the focal elements of more general named classes of plants.

Thus, there are good reasons, in terms of very widely shared features of basic human technology and of human interaction with the environment, why certain uniformities in folk-classifications of wild plants might be expected. In contrast, human interaction with cultivated plants seems much more diverse. One might therefore expect considerable diversity in folk-classifications of this very important sector of the plant world, but this topic is outside the limits that Brown, under the constraint of his starting concept of “life-forms”, sets himself in the present book.

In the case of animals, however, an enormous diversity of human interaction and human attention is possible, and this must apply even more to wild species than to domesticated kinds, which are in any case both globally and regionally few in number compared with the number of cultivated plants. It is small wonder that Brown has to try so much harder to make generalisations about animal categories, and that those he does make are, at least to this reader, not particularly impressive or convincing.

In proposing additional neologisms for animal life-forms as Brown defines them I am not entirely jesting. The fact is that major folk-taxa applied to animals are very diverse. If we see the task of comparative folk-zoology as the cataloguing and typologising of “life-forms” we will necessarily end up with many classes strange both to modern science and to modern English. To give but one example, I know of no New Guinea culture with an indigenous category corresponding neatly either to the zoological class Mammalia or to Brown’s class that I have dubbed “quammal”. But many have a salient named category applied to the medium-sized wild and generally furry terrestrial mammals of that country, mainly marsupials but also including giant rats and echidnas. Fortunately, a Pidgin term, *kapul*, can be borrowed for this grouping. If this term did not exist, we would have to invent one, if our objective were to catalogue exhaustively the global menagerie of life-forms. And we would have to go on and recognise variant subtypes of the *kapul* class, for example distinguishing between those that exclude small rat- and mouse-sized rodents and marsupials from those that do not. However, I would not myself advocate this as the most profitable exercise of the comparative method. My own view is that, while

acknowledging our debt to Berlin and Brown, we should take the concept of “life-form” — and Berlin’s other “universal ethnobiological categories” (Berlin, Breedlove and Raven 1973:215) — less seriously, and compare total structures of animal and plant classifications with as few preconceptions as possible about the content of categories, the linguistic forms in which they are expressed, and the contexts of their application.

As indicated at the beginning of this review, Brown’s objective is not merely to set up universally applicable typologies for cross-cultural comparisons of a synchronic kind, but to establish regularities of historical sequence in the development of cultural categories. Thus, he asserts not simply that “tree” is the most frequently occurring and salient plant life-form, but that it is the first to be encoded in a language, followed in time by “grerb” or “grass”, which in turn may eventually be followed by the other three terms, though in no fixed order. The evidence he adduces is not just the synchronic combinations he abstracts from field reports, but also research by himself and others in comparative-historical linguistics, which has succeeded in reconstructing terms for certain classes in the hypothetical ancestral languages of the past. One of the three language groups he considers (Ch.5) is Polynesian. Because it is possible to reconstruct Proto-Polynesian terms for “tree”, “bird”,¹ “fish” and “snake”, but not for “grerb”, “vine”, “wug”, etc., which are encoded in some contemporary Polynesian languages, he regards this as evidence for the historical priority of the first four classes in Polynesian taxonomies. This seems a dubious procedure. If, as he demonstrates, “tree” is more generally a salient class than “grerb” or “vine”, there is surely more prospect for continuous retention over time both of “tree” as a category and of a particular word for tree, than there is for retention of “grerb” or “vine” categories, and even if these categories are continuously retained, for the stability of terms for them which would enable the historical linguist to make his reconstructions. I would assume that no reconstructed lexicon for a proto-language contains more than a fraction of the number of lexemes extant in any one of its surviving descendants. Granting Brown’s point that the smaller and more isolated language communities of the past probably had significantly smaller lexicons than many contemporary languages, it still seems unjustifiable to assume that a small language community two and half thousand years ago had a simpler system of classification than many small language communities do today. In any case, the use for historical reconstructions of oversimplified and incomplete data on present-day systems of classification can only lead to even more oversimplified and distorted interpretations of the past.

There is other interesting and controversial argument in Brown’s book which cannot be treated at length in the present review. This includes his discussion (Ch.7) of the sources of life-form terms. “Tree” terms, for example, variously derive from terms for particular salient species or genera of trees or, in Brown’s view even more frequently, from polysemous extension of terms for “wood” — though this seems questionable. If one accepts that both “wood” and “tree” categories may have been important for long periods of human history, and one acknowledges that there is much synonymy or part-synonymy as well as polysemy in many languages, then it is arguable that terms may have moved backwards and forwards across “wood” and “tree” and perhaps also “forest” referents, and not consistently in a single direction.

The chapter on the relevance of linguistic marking to the status and history of folk-biological classifications (Ch.8) is also interesting. However, by largely excluding from his review the large sections of folk-classifications that do not relate directly to his 10 selected life-forms — for example, classes of cultivated plants, important domestic animals, and small but culturally important groups of wild plants and animals — he is unable to estimate the full extent to which certain of his life-forms may be residual categories in relation to these, and linguistically marked on this basis.

It will be clear that this is an important and stimulating book. One risk is that nonspecialists in folk-biology will accept its factual base as well established and its findings as conclusive; and that linguists, ethnographers and biologists making only brief forays into folk-classifications of plants and animals may be satisfied if they elicit categories that appear to fit Brown's scheme, and thus help to perpetuate rather than test it. For the specialist reader it is enjoyably provocative and contentious, opening or reopening many questions for further inquiry and thought. Thus, Brown places his critics in his debt. His work cannot be ignored, but it sorely needs to be complemented and corrected by comparative studies which focus more intensively on the small but growing body of detailed and well-reported case studies in folk-biology.

NOTE

1. Or perhaps "binimal", for a number of both Polynesian and non-Polynesian Austronesian languages use *manu* or a cognate term for all nonmarine creatures.

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