BASIC LINGUISTIC ACTION VERBS

Jef Verschueren

Belgian National Science Foundation

& University of Antwerp (UIA)

0.   PRELIMINARY NOTE (AND APOLOGY)

Every discussion of illocutionary markers or illocutionary force indicating devices, if intended to cover as many different types as possible (which seems to be one of the targets of the organizers of the colloquium for which this paper was prepared), needs a section on performative verbs, which are so important as markers of illocutionary force that they form the basis for the interesting though somewhat troublesome distinction between explicit and primary illocutionary acts. The previous stage-setting sentence is slightly hazardous from a rhetorical point of view; it might put some readers to sleep with total boredom since the verbs in question have been infinitely subjected to endless speculation. However, as far as systematic linguistic investigation is concerned, they are almost virgin territory. In this short paper I want to lay the foundations of a new direction of research.

My interest in performative verbs is part of a more general concern with linguistic action verbials [1], i.e. verbs and verblike expressions used in natural language to describe (aspects of) linguistic action. It is motivated by the belief (based on arguments to be found in the first chapter of J. Verschueren 1979) that a thorough and wide-ranging study of the way in which speakers of different natural languages describe linguistic action, and of the linguistic means they have at their disposal for doing so, may be more revealing than mere theorizing.

In the framework of a conference on illocutionary force indicating devices, the relevance of a general discussion of linguistic action verbs, of which the performative verbs — the only ones functioning as

force indicators — constitute only a small subset, is not self-evident. However, the lexicalization of linguistic action in natural language does not offer a clearly separate field of illocutionary force. Therefore, a wider discussion is inevitable. Moreover — and here an apology is in place — an additional part of this paper should have dealt explicitly with the problem of performativity and how it relates to (some) basic linguistic action verbs; limitations of time and space have prevented its inclusion into the text, but I trust that there will be ample time to discuss these matters during the colloquium.

1.   PROGRAMMATIC STATEMENT

Since every natural language contains thousands of linguistic action verbials, the comparative-lexical approach to linguistic action which I advocate, is intrinsically endless. In trying to outline a manageable topic of investigation one can try to cover the whole field (or sizeable subsections of it) for a very small number of languages. This approach was taken in J. Verschueren (1979) which, as a result, consists of a set of exploratory 'exercises'. An alternative — and for me the logically next step — is to extend the research in the sense of what Bolinger would call "painting with a wider brush on a broader canvas". Such an extension is possible if we restrict the object of investigation to a single level of the hierarchic structure which also characterizes the linguistic action part of the lexicon, namely the level of what could be called the *basic linguistic action verbs* (which, as will be explained later, is vaguely comparable to the level of the 'basic color terms' in color lexicons or to the level of the 'life form terms' in biological folk taxonomies).

By drastically reducing the object of investigation in this way, a very extensive investigation in two stages becomes possible :

I. A comparative investigation of the *sets of basic linguistic action verbs* available in a large number of languages, from which — hopefully — 'synchronic implicational universals' can be deduced with respect to the development of the lexicalization of linguistic action (similar to those found for color terms in Berlin & Kay's Basic Color Terms and for plant and animal names in C.H. Brown's "Folk botanical lifeforms" and "Folk zoological life-forms") [2].

II. A detailed comparison of the *semantic dimensions* needed for the
description of the basic linguistic action verbs in a small
number of languages (preferably representatives of the different
stages of development which may have been discovered as synchro-
nic implicational universals), from which *universal principles
of the lexicalization of linguistic action* might be deduced.

The results of this wide-ranging investigation could later
be employed as a universal starting-point for further detailed exam-
inations of individual languages (with respect to their linguistic
action verbials in general) and for small-scale comparisons.

The type of research proposed requires a clear notion of what
basic linguistic action verbs are. The remainder of this article will
be devoted to a tentative operational definition of the concept.

2.   PRIMARY OPERATIONAL CRITERIA

2.0.   *Introduction.*

When trying to define 'basic linguistic action verbs' there
are several sources of inspiration (one anthropological, another
linguistic, and still another psychological) to draw on. I shall
sketch them cursorily by way of introduction as there will be many
occasions to refer to them in the ensuing discussion.

First, American linguistic anthropologists have been studying
natural language taxonomies (which they call 'folk taxonomies') for
many years. Biological folk taxonomies generally consist of at least
five hierarchical levels (see Berlin, Breedlove & Raven 1973) : (a) a
'unique beginner' (e.g. plant or animal) which is rarely named; (b) a
small number of 'life form' terms (e.g. tree, grass, bird, snake, fish,
mammal); (c) a large number of 'generic' terms (e.g. oak, pine, perch,
robin, cat, dog); (d) a lower number of 'specific' terms (e.g. white fir,
post oak); and (e) an even lower number of 'varietal' terms (e.g. baby
lima bean, butter lima bean). Since we are looking for a taxonomical
level which would make our subject matter manageable across a wide
range of languages, our basic linguistic action verbs will have to be
situated on a level similar to that of the life form terms. In addi-
tion to botanical and zoological nomenclature, the favorites for

lexical research by anthropologists have been the areas of kinship
and color. Some color term investigations may be of substantial help
in determining our criteria for basic linguistic action verbs.
Consider Berlin & Kay's (1969, 6) four main criteria for inclusion
of a word in the class of basic color terms :

(i)   "It is *monolexemic*; that is, its meaning is not predictable
       from the meaning of its parts." (See also H.C. Conklin 1962, 43.)

(ii)   "Its signification is not included in that of any other color
       term."

(iii) "Its application must not be restricted to a narrow class of
       objects."

(iv)   "It must be psychologically salient for informants. Indices
       of psychological salience include, among others, (1) a tendency
       to occur at the beginning of elicited lists of color terms,
       (2) stability of reference across informants and across occa-
       sions of use, and (3) occurrence in the idiolects of all
       informants."

All of these will be referred to when proposing similar criteria for
inclusion of a word in the set of basic linguistic action verbs.

       A second source of inspiration is Dixon's (1971) article on
the distinction between the everyday variety and the mother-in-law
variety (only spoken in the presence of certain taboo relatives) of
Dyirbal, and its relevance for methods of semantic description. He
observes that the everyday variety has a much more extensive vocabulary
than the mother-in-law variety which seems to be restricted to a kind
of core vocabulary containing, as far as verbs are concerned, only
'nuclear verbs', i.e. verbs which can only be decomposed in terms of
semantic features and which, unlike the non-nuclear ones, cannot be
defined in terms of other verbs. Again, the relevance of these notions
to our operational definition of basic linguistic action verbs will be
clarified later.

       Third, psychological studies of human categorization (e.g.
Rosch 1977) have shown that not all levels of the hierachical structure
of the lexicon are psychologically equally salient; in other words,

there is a cognitively basic level. This cognitive psychological
notion of a basic level term, though serving as a source of inspiration,
will be shown to be of minimal help — and even somewhat confusing —
in our search for basic linguistic action verbs (which is not to dis-
pute its relevance for other purposes).

2.1.   *The primary structural criterion.*

Linguistic action verbials were defined as the verbs and verb-
like expressions used in natural language to describe (aspects of)
linguistic action. It is clear that verb-like expressions such as
to put one's veto upon or *to shoot questions at* are less basic than
to forbid or *to question.* Since it seems to be generally true that
verbs are more basic than the verb-like expressions, we should only
talk, as we have done so far, about basic linguistic action *verbs*,
not about basic linguistic action verbials. Such considerations lead
us to the following criterion for inclusion of a lexical item into the
class of basic linguistic action verbs :

A. It is monolexemic.

As it stands, the criterion is identical to Berlin & Kay's
first criterion for inclusion of a word into the class of basic color
terms.   However, they defined a word's being monolexemic in semantic
terms : "its meaning is not predictable from the meaning of its parts".
Such a semantic definition would allow idiomatic verb-like expressions
into the set of basic linguistic action verb(ial)s : though the meaning
of fixed expressions such as *to address a warning to* or *to pronounce*
X + Y husband and wife is predictable from the meaning of their parts,
this is not the case for idioms such as *to pop the question* (i.e. to
ask someone to marry you) or *to dish the dirt* (i.e. to gossip) which
are not really transparent. As a matter of fact, if we were obliged
to place these expressions on a scale of 'basicness', most of us would
probably be inclined to put the transparent fixed expressions closer
to the 'basic' pole than the idiomatic, non-transparent ones. There-
fore, criterion A has to be interpreted in purely structural terms :
a word is monolexemic if it consists of only one word with a lexical

meaning; words with a grammatical meaning, such as particles, pre-
positions, reflexive pronouns and the like, may be added.

2.2.   *The primary semantic criterion.*

Our primary semantic criterion is analogous to Berlin &
Kay's second criterion for inclusion of a word into the class of basic
color terms, and it is related to Dixon's notion of 'nuclear verbs'.
Its basic form is the following :

> B.   It cannot be defined in terms of a different linguistic
> action verb.

However, B has to be modified in several ways.

First, if the criterion were to be applied literally, there
would be, for English, only two or three basic linguistic action verbs,
to say (something), *to speak* and maybe (depending on considerations to
be made explicit later) *to talk.* Most, if not all, linguistic action
verb(ial)s can be given a definition which includes the words *to say*
or *to speak*, which are linguistic action verbs themselves. The crite-
rion cannot be kept completely analogous to the one for basic color
terms since there are no color terms which can be applied to any color
whatsoever, whereas there are linguistic action verbs which can be
used to describe any type of linguistic action. Nor can basic linguis-
tic action verbs, without qualification, be regarded as nuclear verbs;
again, only *to say* and *to speak* could be regarded as nuclear in the
wider domain of action in general (which is united by the master-notion
to do something); what we are looking for is a similarly 'nuclear'
level inside the area of linguistic action. These remarks lead us to
a provisional rephrasing of criterion B in the following sense : a
basic linguistic action verb cannot be defined in terms of a different
linguistic action verb, except for the general ones *to say (something)*
and *to speak*.

However, a further modification is needed. Studies of folk
taxonomies have shown that a word can recur on different levels of a
single taxonomy. Thus, the word *plant* functions as the 'unique begin-
ner' in folk botanical classifications; but at the same time it can
mean 'small plant' in contrast to the 'life form' term *tree .* Similarly,

to say (something) and *to speak* (which are at the 'unique beginner'
level for linguistic action — though they are not unique) also have
more specialized meanings on a lower level of the hierarchy : at
the 'unique beginner' level they both mean 'to use language', but
at a lower level *to speak* also means 'to utter sounds' (and thus
to whisper can be defined as 'to speak in a low voice or, technically
speaking, without voice') and *to say (something)* also means 'to make
statement' (and thus *to admit* can be defined as 'to say that x is
right in believing that p is true'). Therefore, criterion B can be
reformulated as follows : a basic linguistic action verb cannot be
defined in terms of a different linguistic action verb, except for
to say (something) and *to speak* in their general sense of 'using
language'. If *to say* and *to speak* have a more specialized sense in the
definition, the defined verb will not be regarded as a basic linguistic
action verb; hence, *to whisper* and *to admit* are excluded.

Third, the ' definition' referred to in criterion B has to be
a definition *in natural language*, not to be confused with some linguis-
tic or philosophical metalanguage. Consider the relationship between
to ask and *to request*. It is not unusual for linguists or philosophers
to define a question or the activity of asking as a 'request for
information'. From a theoretical point of view this is not necessarily
wrong. But natural language — or at least English — reverses this
relationship : *to request* will be more naturally defined as 'to ask
someone to do something', so that 'to request information' can be des-
cribed as 'to ask someone to give information'; the difference in forceful-
ness which would have to be referred to in a complete definition of *to
ask* and *to request* does not change the definitional relationship. The
conclusion is that *to ask* is more basic than *to request;* since reques-
ting can be defined, in natural language, as a type of asking, *to
request* cannot be regarded as a basic linguistic action verb; on the
other hand, *to ask* is a basic linguistic action verb unless a further
definition in terms of a linguistic action verb can be provided. As
a result, a fuller formulation of criterion B would be : in natural
language (as opposed to a philosophical or linguistic metalanguage),
a basic linguistic action verb cannot be defined in terms of a different

linguistic action verb, except for *to say (something)* and *to speak* in their general sense of 'using language'.

Fourth, the 'definition' referred to in criterion B does not have to be semantically exhaustive. As with Dixon's non-nuclear verbs, which may be equally distant from the focus of and hence definable by more than one nuclear verb, there may be non-basic linguistic action verbs for which different definitions are equally plausible, either because the verb to be defined is polysemous (such as *to admit*, which means 'to say, in a statement-sense, that someone is right' or 'to allow someone to enter') or because its signification is a mixture between two or more acts on a higher level of the hierarchy (such as *to notify* which may be a mixture between informing and warning). Even when only one definition is plausible, it does not have to be semantically exhaustive. Consider *to promise*, which can be described as 'to say (in its statement sense) that one will do something'; promising is certainly more than *just* stating that one will do something; yet, the definition can be expected to be plausible (perhaps with an additional reference to the obligation that the speaker takes upon himself) for most speakers of English, and therefore we may have to exclude *to promise* from the set of basic linguistic action verbs.

Fifth, a *reversed definition* does not count. For instance, though 'to say that one is grateful' is definitely *to thank*, it does not count as a good enough definition of *to thank* since the verb does not necessarily mean 'to say (in its statement-sense) that one is grateful'; there are quite a few other (mostly formulaic) ways of thanking; note that the definition is acceptable in the general sense of *to say* as 'to express linguistically' (which was rejected as irrelevant for the purposes of criterion B).

Sixth, there is another type of definition against which the reader has to be warned. Consider *to threaten*, of which it can be said that 'it is just like promising, except that the hearer would not like the speaker to do what he says he will do'. This type of definition implies that threatening *is not* really promising; hence, it is not possible to regard threatening as a subtype of promising; in other words, *to promise* cannot be said to be more basic than *to threaten*. ·

The following reformulation of criterion B incorporates most of the previous comments :

> B'. In natural language (as opposed to a philosophical or linguistic metalanguage), it is not possible to give a non-reversed definition (whether semantically exhaustive or not) of a basic linguistic action verb, in terms of a different linguistic action verb, except for TO SAY (SOMETHING) and TO SPEAK in their general sense of 'using language' or 'expressing linguistically'.

In spite of all the built-in safeguards it is still necessary to present some additional warnings, which will give rise to supplementary criteria. It should be clear that criterion B makes the verbs satisfying it *basic* because speakers of the language in question do not regard the acts they refer to as subtypes of other types of linguistic action.

3. SOME WORDS OF CAUTION

3.1. *The whims of folk taxonomies.*

Theoretical attempts to discover 'basic speech acts' have usually been searches for speech act types to which all others can be logically reduced. Such a neat few-to-many relationship is not to be found in the lexicalization of linguistic action. Most folk taxonomies are full of gaps. Folk zoological classifications, for instance, may have the generic terms for cat, dog and horse, while lacking the corresponding life form term 'mammal'. Similarly, there may be non-basic linguistic action verbs for which there is no corresponding basic one. This is not a problem as long as there is another non-basic linguistic action verb in terms of which the first one can be defined. But if there is not, which will always be the case for the one(s) on the level next to the 'basic' level in the hierarchy, then we are at a loss for a criterion to decide whether a verb is a basic linguistic action verb or not. (Note that the previous remarks imply that the definitions referred to in criterion B do not have to be definitions in terms of basic linguistic action verbs; any other linguistic action

verb, on a level higher than the one to be defined, will do.)   Since basic linguistic actions, as lexicalized in natural languages, are by no means those of which all others are subtypes, additional criteria are needed for the class of basic linguistic action verbs. Examples will be given while presenting these supplementary criteria. But first another problem needs to be pointed out.

3.2.   *The problem of synonymy.*

A second problem remains. Often we encounter linguistic action verbs which are synonymous (or nearly synonymous). Consider *to tell* and *to reveal* (in one of its senses), *to order* and *to command*, *to request* and *to demand*, *to allow* and *to permit*, *to prohibit* and *to forbid*, *to speak* and *to talk*. How do we decide which member of such pairs of synonyms is more basic than the other ? Often it will not be possible to take a decision, but at least for some cases criteria can be adduced.

4.   SECONDARY OPERATIONAL CRITERIA

4.0.   *Introduction.*

The primary operational criteria presented in the previous section are by no means fully automatic procedures for accepting or rejecting a verb as a basic linguistic action verb. The following secondary operational criteria reflect additional important considerations, some of which may even overrule our central semantic criterion. They are :

C.   It must be psychologically salient for informants.

D.   It should only or primarily name linguistic actions.

E.   Its application must not be restricted to a narrow class of arguments.

F.   It should be the most neutral or unmarked choice available.

All of these require some extra clarification.

4.1.   *Psychological salience (i.e. criterion C).*

The psychological salience criterion is identical to
Berlin & Kay's fourth criterion for inclusion of a word in the
class of basic color terms. Also the indices of salience that
I have in mind are similar. Put informally, the main question is :
Does the verb in question figure prominently in the native speaker's
(i.e. the informant's) conceptualization (as reflected in his lexical-
ization) of linguistic action ? It is on the basis of this criterion
that verbs such as *to bless, to challenge, to count, to curse, to
damn, to quote, to scold, to swear*, etc. will probably have to be
rejected.

Though a lack of psychological salience may be adduced to
exclude verbs which satisfy criterion B, it would probably be wrong
to use its presence as an argument for including some that do not satis-
fy criterion B since this would distort the conceptual structure of the
taxonomy. (An example would be *to promise* .)   In other words, not all
verbs that would be regarded as 'basic level terms' (at least inside
the area of linguistic action) by cognitive psychologists, have to
be basic linguistic action verbs. Many of them may be situated on a
level lower in the hierarchy. The fact that not all cognitively basic
words are situated on the same level results from what we have called
'the whims of folk taxonomies' : it is clear that for languages lacking
a life form term for 'mammal' the cognitively basic ones will be the
generic terms for cat, dog, etc.; moreover, even when there are no
gaps the psychologically most salient terms may be scattered over dif-
ferent levels of the hierarchy since salience depends on knowledge,
cultural importance, etc. Without keeping this in mind, the cognitive
psychological notion of 'basic level terms' would be more like a
source of confusion than a source of inspiration for our first supple-
mentary criterion.

4.2.   *Exclusiveness (i.e. criterion D).*

If we are confronted with a pair of words such as *to tell*
and *to reveal*, criterion D is a good help to decide which one of
the two is more basic than the other : since *to tell* has only or
at least primarily linguistic action meanings, it is more basic than

to reveal which, in addition to its linguistic action meaning, also signifies 'to open up to view'. In applying the criterion the directional relationships between the different meanings of a word have to be taken into account. For instance, *to tell* also has a 'revealing' or 'manifesting' sense as in *Fossils tell much about the past*, but this sense is clearly derived from or subordinated to the linguistic action meaning; thus, it remains true that *to tell* is primarily a linguistic action verb. The directional relationship in *to reveal* is probably reversed; moreover, both meanings seem to be more or less of equal importance. Another example to be excluded on the basis of criterion D is *to put forward*, the linguistic action meaning of which is metaphorical.

4.3.   *Applicability (i.e. criterion E).*

For the use of all linguistic action verbs appropriateness conditions can be formulated. For some verbs, however, these conditions impose very strong limitations on their applicability; in other words, only a narrow class of arguments is appropriate for them. Consider *to pray* (which requires God as a hearer), or *to baptize* (which requires a priest as an agent except in an emergency). Such verbs, which will usually be connected with a strong institutional frame, are excluded from the set of basic linguistic action verbs. (Note that this criterion is analogous to the third one for basic color terms.)

4.4.   *Markedness (i.e. criterion F).*

Often two or more linguistic action verbs will be synonymous or nearly synonymous. In such cases a markedness criterion can be handled which is closely related to the applicability criterion above : we can regard as more basic that member of a pair of synonyms which has the widest applicability and which can therefore be said to be the most neutral or unmarked choice available. Consider *to speak* and *to talk*. In general it is true to say that talking is speaking informally, but it is not equally valid to say that speaking is talking formally. However, this relationship is reversed for *to speak* and *to talk* in the sense of 'conversing'. Therefore, in most of their

meanings it can be said that *to speak* is more basic than *to talk*, whereas in the sense of 'conversing' *to talk* is more basic than *to speak*.

Needless to say that this markedness criterion will not solve all synonymy problems. Sometimes, however, it may also help us to solve difficulties of a different nature. For instance, *to allow* can be described as 'not forbidding' in natural language, and *to forbid* as 'not allowing'. Non-reversed natural language definitions in terms of different linguistic action verbs are hardly feasible. But since both verbs are definable in terms of each other, it is sufficient to enter only one of them in the set of basic linguistic action verbs. As with most contrast sets, the positive pole *to allow* seems to be unmarked and is therefore the best candidate for inclusion.

5.   A PROVISIONAL LIST

On the basis of our set of criteria, we can construct a provisional list of basic linguistic action verbs in English. It cannot be stressed enough that this list, as it stands now, remains a *working hypothesis*. To arrive at a final version, much more is needed. For instance, extensive work with informants is needed to apply most of the criteria we formulated; for this purpose elicitation procedures and psychological tests will have to be constructed. Moreover, the actual form of the criteria themselves as well as of the procedures and tests may require considerable adaptations for individual languages. In addition, evidence from different languages may even force us to change the hypothesis about English; more about this will be said in a final section.

Ø (= be silent)

speak

speak to (= address)

talk (= converse)

answer

mention

say something (= state)

tell (= inform)

tell (= narrate)
convince
pronounce (= declare)

ask (a question)

ask (= request)
allow / permit

command / order

speak / say sth.
(= use language,
express linguis-
tically)

- -

(express F)

wish

congratulate
apologize

forgive

thank

greet

welcome

6. CROSSLINGUISTIC EVIDENCE

In spite of all the criteria at our disposal, we may be misled about the taxonomic status of particular words as long as we keep concentrating on separate languages. If linguistic anthropologists had only found languages lacking a life form term for 'mammal', they could not have guessed that such a life form term was possible and they would not have regarded the terms for cat, dog and the like as generic ones. Similar things may happen with linguistic action verbs. A case in point is the set of expressive verbs separated from the other basic linguistic action verbs in the table in section 5. The set of basic linguistic action verbs, as reflected in the tentative table, shows a striking discrepancy between the number of basic verbs devoted to the extremely wide areas of conversing, asserting, asking, ordering and the like, and the number of verbs devoted to the narrow class of expressive acts. Such a discrepancy is suspicious, and we should not be surprised to find languages in which there are more general terms covering the different English ones (the most general being something equivalent to 'expressing a feeling F'). If these were to be found, the taxonomic status of the verbs *to congratulate*, *to apologize*, etc. would have to be reinterpreted. The only indication that I have found so far that my suspicion is not completely without ground, is the fact that Hungarian lumps together some of the expressives in a — for us — pretty odd way : *üdvözöl* means both greeting and congratulating, while *köszön* means thanking as well as greeting.

Crosslinguistic evidence may also be adduced to support markedness decisions (since markedness is frequently consistent across languages). Thus the neutrality of *to speak* vs. *to talk*, in most of their senses, is supported by that fact that the Hungarian equivalent of *to talk*, viz. *beszélget*, is even morphologically marked in comparison with the neutral *beszél*.

Finally, plain gaps can be brought to light by comparing with other languages. For instance, many languages have a verb fitting all the criteria for basic linguistic action verbs which describes the

opposite of speaking, the absence of speech, linguistic silence
(viz. Dutch *zwijgen*, German *schweigen*, French *se taire*, etc.).
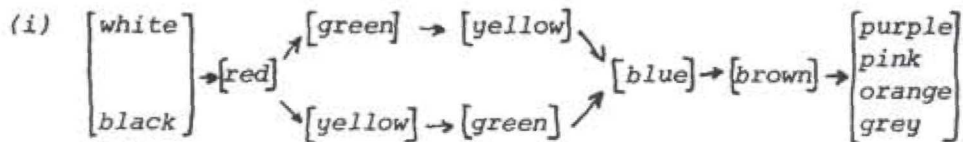English does not.

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The foregoing discussion was intended to provide us with
some of the necessary tools to start working on the project outlined
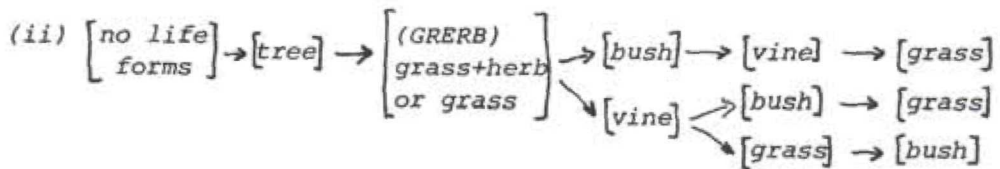in section 1.

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FOOTNOTES

(1) *The term 'verbial', denoting 'verbs and verb-like expressions',
is a neologism analogous to 'adverbial'. The existing term
'verbal' could not be used because its established meaning is
"a word that combines characteristics of a verb with those of
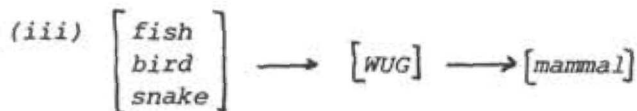a nound or adjective" and it covers gerunds, infinitives and
particles.*

(2) *The 'synchronic implicational universals' referred to are the
following :*

(i)
$$\begin{bmatrix} white \\ black \end{bmatrix} \rightarrow [red] \begin{array}{c} \nearrow [green] \rightarrow [yellow] \searrow \\ \searrow [yellow] \rightarrow [green] \nearrow \end{array} [blue] \rightarrow [brown] \rightarrow \begin{bmatrix} purple \\ pink \\ orange \\ grey \end{bmatrix}$$

(*Berlin & Kay 1969, 4*)

(ii)
$$\begin{bmatrix} no\ life \\ forms \end{bmatrix} \rightarrow [tree] \rightarrow \begin{bmatrix} (GRERB) \\ grass+herb \\ or\ grass \end{bmatrix} \begin{array}{c} \rightarrow [bush] \rightarrow [vine] \rightarrow [grass] \\ \searrow [vine] \begin{array}{c} \nearrow [bush] \rightarrow [grass] \\ \searrow [grass] \rightarrow [bush] \end{array} \end{array}$$

(*C.H. Brown 1977, 318*)

(iii)
$$\begin{bmatrix} fish \\ bird \\ snake \end{bmatrix} \longrightarrow [WUG] \longrightarrow [mammal]$$

(*C.H. Brown 1979, 792*)

*The universals are 'synchronic' because they are based on data
from a wide range of languages as they are now. Yet they
suggest a universal pattern of development because they are
'implicational' in the sense that the occurrence of an item
in languages implies the occurrence of another item or items
but not vice versa; e.g. a language that has a term for 'grass'
will also have one for 'tree'.*

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REFERENCES

BERLIN, B., BREEDLOVE, D. E. & RAVEN, P.H. (1973) : "General prin-
ciples of classification and nomenclature in
folk biology", AMERICAN ANTHROPOLOGIST 75, 214-242.

BERLIN, B. & KAY, P. (1969) : Basic color terms : Their universality
and evolution, Berkeley, University of California
Press.

BROWN, C.H. (1977) : "Folk botanical life forms : Their universality
and growth", AMERICAN ANTHROPOLOGIST 79/2, 317-342.

-----   (1979) : "Folk zoological life forms : Their universality
and growth", AMERICAN ANTHROPOLOGIST 81/4, 791-817.

CONKLIN, H. C. (1962) : "Lexicographical treatment of folk taxonomies",
INTERNATIONAL JOURNAL OF AMERICAN LINGUISTICS 28,
119-141. Reprinted in S.A. TYLER (ed.) (1969),
41-59.

DIXON, R.M.W. (1971) : "A method of semantic description", in STEIN-
BERG, D.D. & JAKOBOVITS, L.A. (Eds.) : Semantics
— An interdisciplinary reader in philosophy, lin-
guistics and psychology, Cambridge, Cambridge Uni-
versity Press, 436-471.

ROSCH, E. (1977) : "Human categorization", in WARREN, N. (Ed.) :
Studies in cross-cultural psychology, New York,
Academic Press, 1-49.

TYLER, S.A. (Ed.) (1969) : Cognitive anthropology, New York, Holt
Rinehart & Winston.

VERSCHUEREN, J. (1979) : What people say they do with words, Univer-
sity of California, Berkeley, Ph.D. dissertation.
Available from University Microfilm International,
300 N. Zeeb Road, Ann Arbor, MI 48106, USA (publi-
cation number 80-29, 621). (A revised version will
appear in the series "Rasmus Rask Studies in Prag-
matic Linguistics", published in The Hague by
Mouton).