

TOWARD A MENDE LEXICON

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0.0. Mende, a Mande Language spoken in Sierra Leone, has been the subject of some 33 works listed by P. E. H. Hair in his *BIBLIOGRAPHY OF THE MENDE LANGUAGE*.¹ Among the various works cited are a number of vocabularies and word lists varying greatly in relative worth, both as to their usefulness and their linguistic merit. The most important of these works in terms of the number of words presented or in terms of linguistic analysis are those by Migeod, Sumner, Aginsky, Crosby and Innes. These will be discussed below in chronological order.

0.1. F. W. H. Migeod devoted a sizeable portion of his *THE MENDE LANGUAGE* (London, 1908) to a number of useful vocabularies. Tone is not marked in the book and practically no comment relating to tone is made save 'The accent in the definite is on the last syllable' (p. 127).² The transcription does not represent the contrasts between *i*, *e*, *ε* and *u*, *o*, *ɔ* with very great accuracy. Mende words are assigned the appropriate 'part of speech' term from their English translations. Words that do not undergo consonant mutation (i.e. words that are already mutated and those which are not subject to mutation) are so marked in the word lists. There are a number of words with more than one 'part of speech' indicated, and the following combinations of two classes can be observed: (1) transitive and intransitive verb, (2) adjective and verb, (3) noun and transitive verb, (4) adverb and preposition, (5) preposition and conjunction, (6) intransitive verb and noun. Although the 'parts of speech' used do not all apply to Mende (adjective can be discarded and preposition changed to postposition) and Migeod did not list any form as being more than two different 'parts of speech', he has shown to some degree the necessity for cross-classification of words in Mende.

0.2. Sumner³ gives a Mende-English and an English-Mende vocabulary. The tone markings are helpful when they are used and *ε/e*, *ɔ/o* are distinguished accurately in the transcription. 'Parts of speech' are indicated but in nearly every case only one is assigned to each word.

0.3. Ethel Aginsky wrote *A GRAMMAR OF THE MENDE LANGUAGE*⁴ after working with one informant in the United States during the spring and summer of 1933. One who knows Mende grammar including tone would never suspect that such an extensive study grew out of such a short period. The transcription used is quite accurate and her comments on tone were not to be improved upon for 30 years. The only word lists presented in the work are solely of a tonal nature consisting of groupings of words with the same tone pattern.

0.4. *AN INTRODUCTION OF THE STUDY OF MENDE* was published in 1944 by K. H. Crosby.⁵ Long the standard for persons with an interest in Mende, this work contains word lists

¹ *SIERRA LEONE LANGUAGE REVIEW*, no. 1 (1962). *THE STRUCTURE OF SENTENCES IN MENDE* (1963) by Gordon Innes should be added to this work.

² Occasionally the definite marker *i* has the only high tone in a nominal, but this is all I can find to support this comment.

³ *A HAND-BOOK OF THE MENDE LANGUAGE* (Government Printing Office, Freetown, 1917).

⁴ Language Dissertation no. 20, Linguistic Society of America (1935).

⁵ Cambridge (1944), with an introduction by Ida C. Ward.

based on tonal type. There is no vocabulary 'per se', but the words in the tonal lists are assigned, for the most part, English parts of speech with very little overlapping. This approach, more incomplete than inaccurate, seemed to lead to greater and greater difficulties in explaining the grammar of Mende and providing a means for telling others how to construct Mende sentences as the many potentials of Mende forms became apparent. The following footnotes support this conclusion. From page 45: 'It is common to find words most usually used as postpositions being used as subject or object of a verb.' From page 53: 'Note how the postposition 'ma' is used as the subject of a verb.' From page 59: 'It will be objected that ngulu is not an adjective in Mende. For most purposes, however, it is as well to assume that a word can be any part of speech.'

0.5. The 1963 study by Innes⁶ does not contain vocabularies or word lists. The work is the first to rely on information other than English 'part of speech' designations to determine a workable classification for Mende. The use of certain structural information to establish categories results in an analysis different from what is seen here or in any of the previous attempts at Mende word classification.

0.6. A publication of the Provincial Literature Bureau and Bunumbu Press (Bo, Sierra Leone) of seventeen pages lists the standard spelling of a large number of Mende words. The claim is made that an important consideration in the word list is that of reducing ambiguity to a minimum, but tone has not been indicated. The spelling list is intended to be used in connexion with Mende literature for Mende speakers who already know Mende tone and tone marking is apparently considered unnecessary for native speakers. There are a few 'part of speech' indications in the spelling list, mainly to indicate cross-classification (e.g. 'also noun', 'also adj.' etc.).

0.7. A short work by the Reverend Stanley Brown⁷ strays only little from Crosby's presentation. It is possibly more suitable than Crosby's INTRODUCTION for the learning of Mende and there are a few minor improvements in the analysis. Other than setting up classes of nouns and verbs, most uses of the term 'class' refer (as in Crosby and Aginsky) to lists of words having the same tone. A much lengthier teaching grammar of Mende has been written by Brown. There are only a very few typescripts of this work extant and it appears to be a greatly expanded version of the 1958 grammar.

0.8. There are a few other works which, while not concerned solely with Mende, address themselves to the problem of Mende word classification:

G. Manessy, 'Nom et verbe dans les langues mandé' JOURNAL OF AFRICAN LANGUAGES, vol. 1, part 1 (1962).

G. Manessy, 'La relation génitive dans quelques langues mandé' PROCEEDINGS OF THE NINTH INTERNATIONAL CONGRESS OF LINGUISTS (The Hague, 1964).

G. Innes, 'Genitival phrases in Mande languages', AFRICAN LANGUAGE STUDIES, vol. VIII (1967).

1.0. If definitions of words were sufficient to provide a means of translating Mende sentences and a means of producing Mende sentences there would be no need to work toward an improved lexicon for Mende. Many of the existing word lists provide reasonable and workable definitions. Grammatical information is required either to make a useful (translating) lexicon or to produce a lexicon that is part of a description of Mende.

1.1. Given a list of Mende words, there are a number of principles on which they might be classified: the length of each word, tone, phonological structure, frequency of occurrence in texts, bound/free, prefix/suffix, etc. Once it is accepted that the proper

⁶ Op. cit. and also A MENDE GRAMMAR (MacMillan, 1962).

⁷ A MENDE GRAMMAR WITH TONES (Protectorate Literature Bureau, Bo, Sierra Leone, 1958).

task of a lexicon is to relate language forms to the grammatical categories of the language in order that the grammar and lexicon, working in concert, would permit the interpretation and construction of Mende sentences, one must turn to the grammar for the categories. While lexical classification based on non-grammatical categories is by no means rejected for many purposes, the question should properly be raised whether a lexicon bearing categories based on non-grammatical considerations (i.e. covert/overt, prefix/suffix) can accomplish the tasks required of a lexicon.

2. This paper presents some of the major grammatical categories to be recognized by the lexicon. No attempt has been made to be exhaustive. Whereas the writers of word lists have in the past been very sparing with the assignment of categories, an effort has been made here to respond to the problem of cross-classification in Mende and classify forms accordingly.

3. **BASE FORMS.** The Mende word for shirt has at least seven forms including the possible variations in tone: *ndoma* (2 1),⁸ *ndoma* (2 2), *ndomε* (2 2), *loma* (2 2), *lomε* (2 2), *loma* (1 3), *lomε* (1 3). If a principle of listing all forms were established, most of the lexicon would be made up of monotonous strings of allomorphs which are clearly related to a base form from which each allomorph could be derived. Forms with mutated consonants (see 7.1 below) and tonal changes, both of which occur when certain grammatical rules are applied, are produced by the grammar and the individual forms need not be listed in the lexicon.

4. **DELETABLE CONSONANTS.** Most medial l's and w's (and a few m's) are often omitted in Mende, (e.g. *pεle* > *pεε*, *ndawa* > *ndaa*, *numu* > *nuu*). Not all such medial consonants can be deleted. The Bunumbu Press spelling-book suggests that all such consonants always be written to prevent possible ambiguity. It is suggested that the lexicon indicate the few medial consonants which cannot be omitted (i.e. *lole* 'how many'), perhaps by capitalizing the symbol in question: *loLe*. This potential need not be indicated in the transcription. Membership in a morphophonemic subclass of deletion or non-deletion would give the same results.

5. **TONE.** Mende has two basic tonal intervals which may occur ascending or descending and intervocalically or intravocalically as follows:

- (A) One step up, inter- or intravocalically,
maha (2 1) 'chief' *nja* (2-1) 'water'
- (B) Two steps down, inter- or intravocalically,
kali (1 3) 'hoe' *pu* (1-3) 'cave'

At the end of an utterance, this interval is very wide.

- (C) One step down, intervocalically,
pui (1 2) 'the cave'

This interval is often extremely narrow.

The tonal system including tonal changes and suggestions for tone writing are discussed in detail elsewhere.⁹

The indication of tone is essential to any list of Mende words and an accurate accounting of tone would be a major improvement in many of the works written on Mende in the past.

⁸ Since the marking of tone is not the subject of this paper, Mende examples given below will have their tone indicated by numerals which follow the example. The numeral (1) represents the highest pitch.

⁹ Spears, 'Tone in Mende', *JOURNAL OF AFRICAN LANGUAGES*, vol. VI, part 3 (1967).

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6.o. NOUN AND VERB. Most grammarians have only a classification problem in Mende. Cases of a form being both noun and verb are most frequently mentioned, but only Innes has pursued the problem, offering a solution to the problem. His 1963 study is virtually the only one offering categories to Mende words in a way that shows something about the Mende.

6.1. Dissatisfied with previous assignments of words to adjectives, Innes set up new classes through the use of two major divisions of Mende words: *pele-* words are 'words in the position in the frame # — (-i) — -nga' and *hale-* words occupy both positions in this frame' (p. 26). Stated in other terms, *pele-* words take nominal affixes and can occur as subjects and objects of postpositions or transitive verbs. They can be possessed and can themselves possess other nouns. *Hale-* words are free words, but in addition, they can take the verbal affixes. *Hale-* words display noun potential in the first position in the frame (definite marker *l*) and verb potential in the second position (suffix *nga*). They are subclassified as transitive or intransitive verbs, changes that put them into nominal phrases. This classification covers every form in Mende that has the potential of being used as a noun or of being used as a noun. Forms that belong to the *pele-* class are classified according to their membership in other tests as well as both a *pele-* word and an interjection (p. 23).

The *pele-/hale-* classes will be examined below from the point of view of mutually exclusive classes to represent grammatical categories. *pele-/hale-* denies the existence of a category (verb) which is not in the description of Mende (6.4). (3) Whether there are forms which are not in (6.5).

6.2. Mutually exclusive classes provide a means for uniting words into one and only one major class. The relationship of a form to a class is one similar to the relationship of a given phone (allophone) to a class of phonemes (phonemics). If one were to make lists of Mendocino words on the basis of mathematical potentials (transitive, intransitive, alienable, inalienable, etc.) one would find that many if not most of the words would be on one list. *Pelex-* words are words that occur on at least the noun list and *hale-* words occur at least on the noun lists AND on the transitive lists.

Carrying this system of classification further, we could have like *dunya* 'world', which occurs on the noun list and the verb list, and the classes (or subclasses) of *hale-* words could be set up for word list only, the intransitive list only and for those which are both. Additional groups might have to be set up for those forms which are interjections; both transitive and intransitive and interjections; combinations of categories that are represented in actual Malayalam. For. This type of classification carried out to its maximum would result in a very large number of word classes, each with members which behave exactly alike grammatically. Each class would represent a grammatical category. A grammar rule handling

deal with each class which includes Q among the component potentials which distinguish one mutually exclusive class from another. To my knowledge, no one has attempted to do this for Mende, but if the possibility of unambiguously assigning a form to one and only one class is the primary consideration in the determination of form classes it is unclear why one should not make all of the classifications of mutually exclusive membership. Clearly, this was not Innes's purpose in setting up these classes.¹⁰ The major concern is to show that all verbs can also be nouns. The argument against mutual exclusion is not intended to dismiss the significance of the facts on which the *pele-/hale-* divisions are based but rather to lessen the appeal of these divisions on the basis of mutual exclusion alone.

6.3. In general, mutually exclusive classes tend to conceal grammatical categories. In the case of *pele-/hale-* words, only two grammatical categories are concerned and it is possible to retrieve both or either category. That is, *pele-* words include forms of category A but not B, *hale-* words include forms which are of categories A and B but no others. When a rule deals with category A, it cites *pele-* and *hale-* words, when it deals with category B, it cites *hale-* words. The recognition of two categories is implicit in this interpretation of *pele-/hale-*, even though, in this case, *pele-/hale-* classes are not in themselves grammatical categories. If, however, *hale-* is meant to be a category in the sense that Mende grammar recognizes the *hale-*ness of a form and does not in any instance distinguish which potential within the *hale-* class is realized, there are a number of considerations that might lead one to prefer another system of classification.

6.4. The *pele-/hale-* word classification, while revealing information about the structure of the lexicon, can act to conceal grammatically relevant facts. By putting forms with noun potential into two different classes, the identity of nouns evidenced by distribution is destroyed. By having all verbs in the same class with some of the nouns, it becomes impossible to account for some of the major grammatical points in the language.

In Mende compounds whose members are both nouns, the first noun indicates the composition, kind or use of the second, e.g. type (a) *ngulu gbɛɛ* 'wooden bench', type (a) *ngulu gbakpa* 'wooden hammer'; type (a) *nyaha gbɛɛ* 'a woman's bench'. The head word is the second noun. In a compound, when the head word comes first and the second form is from an intransitive verb (see 8.0 below) the verb functions as an adjective would in English, e.g. type (b) *kpakpa wovei* 'the old hammer', (*wovei* < *ngova* 'to become old'). A grammar that recognizes the categories of noun and verb will produce the first type of compound (a) by combining two forms, each of which has the noun potential realized. The rule that thus combines forms with the noun potential realized will do so without regard to whether or not the noun may also, in another sentence, be a verb.

The rules that produce compound type (b), *kpakpa wovei*, combine a noun and a verb (as described in 8.1-8.4 below) without regard to the noun/verb cross-classification of the forms.

Since some forms have both verb and noun potentials, it should be expected that these forms could occur in both types of compounds described above. Innes (1963, p. 63) comments on the (noun-verb) compound *nyapo nyande* 'pretty girl': 'It may be noticed that the compound *nyapo nyande* is in some contexts appropriately translated "girlish beauty", for example in describing a man who is handsome in a somewhat effeminate way.'

¹⁰ See Innes (1963), pp. 9-10 and 69, for mention of other approaches to the problem, including that which is put forth here.

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A number of other such examples are given (p. 64): *kula gole* 'white cloth' or 'cloth whiteness', *nyapo nyamu* 'ugly girl' or 'girl ugliness'.

It is suggested here that *nyapo nyande*, meaning 'girlish beauty', is produced by combining a noun with a noun and is a compound of the (a) type, equivalent to *ngulu gbɛɛ* 'wooden bench' and any other noun-noun compound where the first noun tells the composition, kind or use of the second noun. *Nyande* in the (a) type is from *nyande* 'beauty' (noun). *Nyapo nyande* 'pretty girl' is a compound of the (b) type (like *kpakpa wovɛi*) from *nyande* 'to become beautiful' (verb).

The *pele-/hale-* classification seems to impose more description than necessary on this type of Mende construction. In the following examples column A gives the *pele-* (P), *hale-* (H) designations and column B shows which noun (N), verb (V) potentials are relevant. Column C gives the compound type.

	A	B	C
1. <i>hale goi</i> 'the fight about medicine'	H, H	N, N	(a)
2. <i>ngulu gbakpei</i> 'the wooden hammer'	P, H	N, N	(a)
3. <i>ngulu welei</i> 'the wooden house'	P, P	N, N	(a)
4. <i>hale welei</i> 'the house for medicine'	H, P	N, N	(a)
5. <i>nyapo nyande</i> 'girlish beauty'	P, H	N, N	(a)
6. <i>nyapo nyande</i> 'pretty girl'	P, H	N, V	(b)
7. <i>kpakpa wovɛi</i> 'the old hammer'	H, H	N, V	(b)

In 1-5, using *pele-/hale-* words, there are four different descriptions for the same type of compound.

In 6 and 7 there are two descriptions for the same type of compound, which is viewed here as a form with the noun potential realized followed by a form derived from one of a small number of intransitive verbs which have the meaning 'to become —'; *ngova* 'to become old'. In addition, there is no way to tell what might be meant by compounds like 5 and 6 if it is not recognized that in one case (5) *nyande* is a noun and the head of the compound, and in 6 *nyande* is from the verb potential and *nyapo* is the head of the compound.

The point of the foregoing is that while Mende verbs often appear as nominals, in a given sentence it is essential to the understanding of the sentence to know which potential is realized, and that knowing that a form in a sentence may or may not have other potentials is irrelevant to our understanding of the sentence. A lexicon which (with the aid of the grammar) provides the information we need to translate Mende sentences will be based on categories that permit one to state which potential (noun or verb) is realized in a given sentence. What the categories NOUN and VERB do not provide is a constant reminder of the NOUN/VERB cross-classification profile of each word.

6.5. The method used by Innes for classifying Mende words (6.1) implies that any form that can take verbal suffixes can just as readily be used as the subject or object of a sentence. Forms such as *kpakpa* 'a hammer, to hammer', *hale* 'medicine, to treat (with

medicine)', *kɔ* 'war, to fight', *nyande* 'beauty, to become beautiful', *pawa* 'pay, to pay' seem to bear noun and verb potential equally at least in the sense that they may readily take all noun affixes and all verb affixes. This can certainly not be said for every form that can take the verbal affixes. The right-hand boundary of the noun phrase is marked by the definite marker *i*, and a nominalized verb which occurs as the last element before *i* in a noun phrase occurs before *i* as nouns do, but that does not necessarily make the form a noun. For instance, if the subject of a sentence is *yeesusui*... 'the deep one...', *susu* occurs before *i* but *susu* has absolutely no further nominal uses. In *yeesusui*, *susu* is equivalent to *susu* in *njeisungɔ* 'the river is deep', where *susu* is already a nominalized verb.¹¹ *Susu* alone is never the subject or object of a sentence. In the sentence *peimia ipeema* 'It's coming he is doing', *pɛ* (< *pa*)¹² occurs with the *i* suffix (derived in this case also) but *pei* has no further nominal distribution, e.g. never **ngi wei* 'his coming', **numu wei* 'the arrival of a person', **pa gbehei* 'the chair used during visits'.

One may suspect that the problem of noun and verb in Mande languages appears to be complicated because of derivational patterns that are not yet totally understood. Derivational admittance to 'noun-hood' gives forms which are quite restricted in their distribution and the number of forms that can be readily used as nouns and verbs is far more limited than the *pele-/hale-* classification indicates.

There is some suspicion that the *hale-* class is based on the facts that (1) some forms have nominal and verbal potential and (2) all verbs can be nominalized. A frame or set of frames designed to identify the words belonging to one class or another would have to provide a means of distinguishing the form which in a given case is a noun (and in other cases a verb) from the form which is a nominal derived from a verb.

If frames are to be used for classification, I would classify forms not on the basis of their admissability to one frame but on their admission to a number of frames.

Single forms that (1) can take the plural suffixes, (2) can be possessed, (3) can take the definite suffix, are said to possess the noun potential. Forms which do only one of the above, and forms that meet one, two or three of the requirements only when they are in the presence of certain other forms are said to be derived.

Single forms that can take the verbal suffixes *ni*, *nga*, etc., are said to possess the verb potential.

Single forms which satisfy one or two (but not three) of the noun criteria AND also possess the verb potential are suspect of being derived and these forms are not cross-listed as having both noun and verb potential.

Forms which satisfy one, two or three of the noun tests but only when in the presence of another form (a derivational form: *ngɔ*, *ma*, *mɔ*, etc.) AND which can take the verbal suffixes *ni*, *nga* are derived from forms possessing the verb potential and are constituents of a nominal phrase. These forms are not cross-listed as nouns.

Single forms that satisfy the three noun criteria AND the verb criterion are said to possess both noun and verb potential and are cross-listed under both categories. I find it more adequate to use a category of verb and explain its limited nominal uses through derivational rules than to concede noun-hood to every form that can be nominalized. Some statement of this type is necessary to account for the radically different distributions of the *hale-* words of the *hale* and *susu* varieties, for instance.

¹¹ From *susu* 'to become deep', never 'depth' or 'deepening'.

¹² This *pa* is not totally identical to the verb *pa*. *Pa* (verb would be low tone here, this *pa* is high).

6.6. Summarizing the above, there is a difference between mutually exclusive classes and grammatical categories. In so far as mutually exclusive classes do not deny the relevance of their constituent categories, they are only awkward. If they are substituted for grammatically relevant categories, they are not only awkward but irrelevant to the operation of the grammar and to the task of the lexicon.

Although the distribution of nominal and verbal affixes and the forms to which they are suffixed may be the result of the application of derivational rules, the category VERB is necessary to explain certain Mende forms and its use is not contradicted by the structure of the language even when its presence is not required for grammatical description.

The lexicon proposed here would recognize the primary potential(s) of each form. The noun/verb classification is more relevant to Mende for the following reasons: (1) There is no evidence to support a category of *hale-ness* that is preferable to the noun/verb categories. (2) The *hale-* class does not permit one to tell whether a form is derived or cross-classified. (3) There are forms in Mende that are verbs only.

The following sections discuss subclassification of the noun and verb classes.

7.0. SUB-CLASSIFICATION OF VERBS. Verbs in Mende are either transitive, intransitive or both transitive and intransitive (e.g. *ha* (2-1) 'die', int.; *pa* (2-1) 'kill', tr.; *kula* (2 1) 'drop', tr., 'fall', int.). In choosing the base forms of verbs most grammarians have taken the imperative form. In the imperative, intransitive verbs have mutated consonants and transitive verbs have non-mutated consonants when no object is expressed, e.g. *wa!* 'come!', *pa!* 'kill (it)!'

7.1. Traditionally consonant mutation refers to the change of one set of consonants to another.¹³ Under certain specifiable conditions, the following changes occur: *s* > *j*, *f* > *v*, *t* > *l*, *nd* > *l*, *p* > *w*, *mb* > *b*, *kp* > *gb*, *nj* > *y*, *ng* > *y* or *w*. Forms containing the first (left-hand) member of each pair are considered here to be the base forms. One can always work from the base (strong) forms to the weak forms mechanically but not vice versa, i.e. *l* < *t* or *nd*, *y* < *nj* or *ng*, *w* < *p* or *ng*. Consonant mutation occurs in both nouns and verbs and in postpositions. In unpossessed nominal compounds, initial consonants of each morpheme except the first are mutated. Postpositions and transitive verbs preceded by a nominal are mutated. Nouns that also have the potential of being an intransitive verb have a base form with a strong initial consonant. The intransitive verb *yi* (2-1) 'to sleep' is from the non-mutated form *nji*. In forms such as *nji mei* (2 1 2) 'sleeping place', it is possible to say that *nji* (2-1) '(to) sleep' has a strong initial consonant because it is from the potential which has a strong consonant base form. But in the case of a sentence like *pango* (1 3) 'It is come' or 'It's coming is', we see the strong form *pa*, the intransitive verb 'to come', which has always been cited in its weak form *wa*. Indeed we find that nearly all¹⁴ intransitive verbs have a strong initial consonant in this type of sentence. Thus most intransitive verb base forms are listed with the strong consonant series.

The notation of consonant mutation has offered some problem for workers in the past. The question of classification aside, there is the additional problem of alphabetizing lists of words which have a choice of initial consonant. The Mende spelling list gives the mutated form with instructions to see the non-mutated form when the two are recognized

¹³ For consonant mutation in Mande languages, see Manessy, 'L'alternance consonatique initiale en manya, kpelle, loma, bandi et mende', J.A.L. vol. 3 (1964).

¹⁴ I find a few words like *lali* (1 1) 'to head, consent', which do not have a form with a strong consonant. Since *tali* and *ndali* do not exist, *lali* is taken as the base form.

as related. Migeod marks most intransitive verbs as not being capable of mutation. This marking is given to all forms that are not susceptible to mutation whether they have been mutated once already or were not mutable in the first place. In the lexicon proposed here, verbs are to be listed in the strong consonant form, thus providing a single form for NOUN and transitive and intransitive VERB when both or all potentials are present.

7.2. The Mende verb presents more subcategories than just transitive and intransitive. Given the construction (OBJECT)+VERB+POSTPOSITIONAL PHRASE (where the verb is intransitive if no object is present and where the postpositional phrase is a nominal followed by a postposition), knowing the grammatical classification of each of the elements is not sufficient to make a proper semantic interpretation of the sentence. There are three possibilities:

(1) A sentence expressing the location of an object or the action of the sentence, e.g. *nikei wa ndɔgbɔihu* 'Kill the cow in the forest!', in which case the postpositional phrase (*ndɔgbɔihu*) tells where the action takes place, contains a purely locative phrase. The location itself can be replaced by a prolocative like *na* 'there' or *bei* 'here'.

(2) Verbs taking directional complements are those verbs (transitive or intransitive) which can operate with locative structures to indicate that the subject or object of a sentence is moving toward or away from the location expressed by the locative phrase, e.g. *pu fajihu* (2 1 1 1 3) 'Put it in the bucket'. Structurally, this sentence type is similar to that described in (1), except that the verb has its tone changed to low. Compare the tones of the following.

a kula ɓ peɛibu (2 2 1 2 3 3 5)

He will drop it within the house

a kula ɓ peɛibu (2 2 2 1 2 2 4)

He will drop it into the house

Typical of the verbs which can be used in this manner are *pa* (1) 'come', *ndi* (1) 'go', *pu* (1) 'put' and *to* (2-1) 'stand'.

(3) *Gbo* 'to help', in *gbo nyama*, 'help me', ('help ON me'), could be called a verb of application. No change of location is indicated and the postpositional phrase indicates that the action of the verb is to be applied to the object of the phrase itself. The postpositional phrase in VERB+DIRECTIONAL COMPLEMENT can be replaced by prolocatives (i.e. *na* 'there', etc.). No such substitution can be made in the case of verbs of application. Some common verbs of application are: *peɛ+ma* 'blame on', *kaka+ma* 'miss (on)' and *no+ma* 'insist on'.

None of these three types includes any restriction on the presence of additional postpositional phrases which indicate location. A lexicon of Mende will indicate which verbs have the potentials of being verbs taking directional complements and verbs of application in addition to marking the transitive, intransitive potential of each verb. It is assumed that every verb can be followed by a locative phrase and no special indication is required for locatives.

7.3. Still another group of Mende verbs requires special indication in the lexicon. A fairly sizeable number of transitive verbs can take¹⁵ a 'postposition' after a direct object (i.e. OBJECT+POSTPOSITION+VERB). Although the meaning and form of each of the five words that can fill this position is almost identical with postpositions of the same form, two of these forms have tonal features that indicate a closer bond with the verb

¹⁵ A few verbs MUST have such a form, e.g. *maluve* (< *ma+luve*) 'to exchange'.

than with the object to which it appears to be suffixed. The tone of *ma* is low-rising before verbs that begin on low tones and low before verbs beginning on high tones. The form *hu* is low before highs and high before lows, e.g. *hubo* (2 1) 'break in two', *magona* (2 1 1) 'report on', but *hugije* (1 3 2-4) 'scrub inside', *magole* (2-1 3 2) 'whiten'. When these forms function as postpositions, their tone is determined by what precedes them and not what follows them, e.g. *nyama* (1 1) 'on me', where *-ma* gets its tone from *nya*. The verbs that have the potential of being used in this manner form a subclass and this potential is to be indicated in the lexicon. In addition there must be some indication of which of the five prefixes these verbs co-occur with. Examples: *mba* 'pierce', *hubo* 'penetrate'; *kenye* 'split', *hugenye* 'inscribe'; *kona* 'announce', *magona* 'report on'.

8.0. ADJECTIVES. The traditional views of Mende have listed *gole* (< *kole*) 'to become white, clean', *wova* (< *ngova*) 'to become old', *leli* (< *teli*) 'to become black' and *gutu* (< *kutu*) 'to become short' and many more forms as adjectives primarily because when these words follow nouns in some constructions, they are best translated by English adjectives, e.g. *kula gole* (2 2 1 3) 'white cloth', *kula wova* (2 2 1 3) 'old cloth', *kula leli* (2 2 1 3) 'indigo cloth', *kula gutu* (2 2 1 3) 'short cloth'.

8.1. As indicated above (6.4) forms called adjectives also exist as intransitive verbs which have the meaning 'to become —'. All of these intransitive verbs may occur in sentences where the predication (and derivation) is indicated by the form *ngo*, e.g. *numui lelingo* (1 1 1 3 2 4) 'The person is black'. Nearly all verbs may occur in *ngo*-sentences.¹⁶ When a pronoun is used in an *ngo*- sentence, it is the genitive/objective pronoun. In some cases there are specialized meanings expressed by *ngo*- sentences, i.e. *ngi gango* (1 3-2 4) 'He is educated'. (*ga* < *ka*, means 'to read'), literally: 'He is (well) read' or 'His reading is'. The analysis which these categories are based on claims that the nominal *ga* in *ngi gango* is derived from the verbal potential.

8.2. Taking the genitive/objective form of the pronoun (which is found in *ngo*-sentences) literally, examine the following *ngo*- sentences with reference to the translation 'His — is', (*ngi* — *ngo*).

mahei wovango (2 2 1 2 2 4) The chief is old.

ngova to become old

The chief's becoming old is (an accomplished fact).

kulei yeyango (2 2 1 2 2 4) The cloth is bought.

ngeya to buy

The cloth's buying is (an accomplished fact).

ngi gewungo (2 1 1 3) He is warming up. (He is chilly.)

kewu to warm up

His warming up is (an accomplished fact).

ngi yafango (1 3 2 4) She is a gossip.

ngafa to gossip

Her gossiping is (an accomplished fact).

¹⁶ The few verbs that do not appear in *ngo*- sentences simply would not mean anything in the construction, or the meaning one might intend to be conveyed is more often expressed in another way, e.g. not *numui bolengo* 'the person is a joker' but *bole moi* 'the joker'. The restrictions seem to be semantic in each case and nothing that can be expressed as a generalization. See Innes, p. 41, for more on *ngo*- sentences.

8.3. *Ngɔ-* sentences which do not include pronouns can be included into other sentences, i.e. *maha wovangɔi ye bei ɔ* (2 2 1 1 3 2 4 3 3 4) 'The old chief was here'. ('The chief (whose) agedness is, was here.') In this example, the definite marker, *i* follows *ngɔ*. The *i* marks the right-hand boundary of the nominal phrase. In this type of sentence there is yet another way to express essentially the same information: *maha wovei ye bei ɔ* (2 2 1 2 2 4 3 3 4) 'The old chief was here'. In this last sentence the *ngɔ* has been deleted, the definite marker *i* remains, (*a* becomes *ɛ* before the definite *i*) and the tone of the nominal phrase changes. Compare the tone in *nyaha wovangɔi* (2 1 2 2 4 3) with *nyaha wovei* (2 1 3 3 2).

8.4. Not all *ngɔ-* sentences can be included in other sentences with the *ngɔ* deleted. Only *ngɔ-* sentences which contain forms that were originally intransitive verbs with the meaning 'to become —' can be included. Any *ngɔ-* sentence that does not contain a pronoun can be embedded in a sentence, serving as a nominal. The definite form is then moved, *mahei wovangɔ* becomes *maha wovangɔi...*, which is in its present form 'incomplete' and must be included in another sentence. *Ngɔ* (without the definite marker) is the predicator in the sentence *mahei wovangɔ*. In *maha wovangɔi...*, *ngɔ* is part of the nominal phrase. In a further step the *ngɔ* may be deleted with some intransitive verbs (those with the meaning 'to become —') and the result is a nominal phrase, e.g. *mahei wovangɔ* 'The chief is old' becomes *maha wovangɔi...* 'the old chief...' becomes *maha wovei...* 'the old chief...'.

If further study were to show that not all verbs can occur in *ngɔ-* sentences, the lexicon would indicate which cannot (or show which forms can occur with *ngɔ*). Since only certain intransitive verbs can lose *ngɔ* in included sentences, there must be some indication of which intransitive verbs can so operate. Forms with the definition 'to become —' are members of this class. This class corresponds quite nicely to the traditional class of adjectives. If one were setting up mutually exclusive classes in Mende, the term 'adjective' might well be applied to forms having at least the potential of INTRANSITIVE VERB and the potential of occurring in *ngɔ-* sentences that can be included into other sentences without *ngɔ*.

8.5. To further justify the category of verb and justify the claim that the form appearing to be possessed as a noun in *ngɔ-* sentences (i.e. *wova* in *ngi wovangɔ* 'He is old') is from an intransitive verb source and not a noun source, the following evidence is offered.

Only verbs take directional complements with the associated tonal lowering (see 7.2 above). That is to say, if there is in fact an underived noun form *kulei* 'the dropping, the falling' (and I doubt that there is); it is not this noun form which is found in the *ngɔ-* sentence *fei gulangɔ* 'The pot is dropped'. *Kula* in the *ngɔ-* sentence is subject to the same tonal lowering as the *kula* above (7.2). Thus we have *fei gulangɔ peieibu* (2 1 3 2 3 2 2 2 4) 'The pot is dropped within the house', and *fei gulangɔ peieibu* (2 1 3 3 3 2 2 2 4) 'The pot is dropped into the house'. Since the distinction between directional complement and locative phrase is not relevant to the noun category but is relevant to the category of verb, these illustrations are taken to be evidence for separate noun/verb categories and the relevance of the verb potential in the case of *ngɔ-* sentences.

Further, in the case of pre-verb postpositions (a feature co-occurrent with forms appearing with verbal affixes, see 7.3) simple forms with nominal affixes never occur with these prefixes and certain verbs do occur with them, e.g. *fei hugijengɔ* 'The pot is scrubbed (inside)'.

9.0. NOUNS. Mende languages have what are usually called alienable and inalienable

nouns. Inalienable nouns usually refer to the names of the parts of the body and kinship terms. All other nouns are said to be alienable. The difference between the two is indicated formally in possessive constructions. Alienable nouns are connected to their possessors by a type of tonal assimilation which might be called tonal extension. The details of tonal extension are explained elsewhere.¹⁷

9.1. Briefly, there are two types of tonal extension—simple tonal extension and tonal extension with low tone assignment. The former is used to connect monosyllabic postpositions with their objects, all verbs with the perfect marker *nga* and intransitive verbs with the past marker *ni*. The latter is used to connect nouns in noun compounds, nouns and forms functioning as adjectives, and possessors of alienable nouns. When an inalienable noun is possessed, the possessor and the possessed noun are simply placed next to one another with no tonal change.¹⁸ This is the same type of tonal connexion that is used between objects and transitive verbs, objects and polysyllabic postpositions (most of which can be shown to be related names for parts of the body) and indeed any sequence of morphemes which does not undergo some tonal change. It is undoubtedly significant that the same type of tonal connexion that occurs between a possessor and a body part name is also used to link objects with some post positions which are clearly cognate with body part names.

9.2. The terms alienable and inalienable indicate a type of rather strict opposition as if to say that a noun may be either one or the other. However, any noun that can be possessed in the inalienable construction can also occur in an alienable construction with a difference in meaning, of course. Thus, 'his head', *ngi wui* (1 3 2) and *kwalei wui* (2 2 1 3 2) 'the monkey's head' are both inalienable constructions when the head he possesses is his own and the monkey's head is the monkey's own head. If, however, one were to indicate his possession of the head of a monkey (as a foodstuff, perhaps), it would be *ngi wui* (2 1 2). I have not found any inalienable nouns which cannot also be alienable in specific situations. This is not to say that the two constructions are interchangeable in any sense. The lexicon will indicate which nouns have the potential of being used in the inalienable manner.

9.3. There is a small morphophonemic problem which relates to inalienable nouns. A few nouns do not have any mutation of initial consonants where the rules would lead us to expect them. The lexicon will indicate which nouns do not mutate initial consonants. Most such nouns are loan words, e.g. *fɔto* 'photograph', *plinti* 'print cloth'. Others do not seem to be loans, e.g. *ta* 'shell, nest, den, colony' (as in *ɲɔni ta* 'bird nest'). A small group of these non-mutating words are clearly Mande words and are not suspect of being loan words, e.g. *kenya* 'uncle', *keke* 'father', *ngɔ* 'elder brother', etc. All the words in the last group are kinship terms. They are inalienable according to their tonal connexion but do not have consonant mutation.¹⁹ Furthermore, unlike other inalienable nouns, they do not appear in the definite form when possessed. The fact that these nouns do not take the definite morpheme when other inalienable nouns do and the fact that there is a definite semantic category involved (type of human relationship), establishes a potential which is reflected in the lexicon. This subclass is indicated by the presence of the non-mutating restriction AND the inalienable potential.

¹⁷ Spears, *op. cit.*

¹⁸ Certain vowels have what can be called tonal polarization, i.e. they are low before high tones, and high before lows. This phenomenon operates throughout the entire tonal system and is not considered the same as tonal change. ¹⁹ See Crosby, *op. cit.* p. 12.

9.4. Nouns can be further subclassified according to the features of animate/inanimate, concrete/non-concrete, count/non-count, human/non-human. Each of these features would be important in a complete grammar of the language. Of special interest in Mende is human/non-human. Normally, the third person singular genitive/objective pronoun is *ngi* before nouns whether or not the pronoun stands for a human or non-human noun, e.g. *ngi halei* 'his medicine, its medicine'. However, the third person singular before a verb (or before a form derived from a verb) is *ngi* for a human noun and zero (no segmental phonemic representation) for a non-human noun. Thus, *ngi hale!* 'medicate him!', *hale!* 'medicate it!', *ta a halema* 'He is treating it', *ta a ngi halema* 'He is treating him', *ngi hale ngo* 'He is treated', *hale ngo* 'It is treated'. The use of the third person singular zero²⁰ before the 'verb' in *ngo*- sentences is further evidence of the original verbal potential of *hale* in this case.

9.5. There are two basic forms of the definite marker. Some nominals that end in *a* take a definite in *a*, e.g. *ba* (1-3) 'a price', *baa* (1 2) 'the price'. All others that end in *a* change the *a* to *ε* before the definite marker which is *i*, e.g. *maha* (2 1) 'a chief', *mahei* (2 2 1) 'the chief'. A very few nominals ending in *ε* take a definite marker in *ε*, *nyawe* (2 1-3) 'March', *nyawee* (2 1 2) 'March'. A few nominals ending in *a* can form the definite with *a* or *i*, e.g. *bubaa* (2 1 1) or *bubei* (2 1 1) 'the tunic'.

Medial *l* and *w* are often omitted in Mende words, i.e. *ndawa* (1) 'leaf' is often *ndaa* (1 1) (see §4 above). When the *l* or *w* is deleted and the vowels of the word are both *a*, the definite form is *a*. When the *l* or *w* is present, the final *a* becomes *ε* before the definite *i*, e.g. *ndawei* (1 1 1), *ndaaa* (1 1 1). All other nominals take the definite in *i*.

Disyllabic forms whose second syllable begins with *l*, *n*, *nd*, *t*, *y* or *w* regularly have vowel assimilation before the definite *i* as follows: *ui* > *ii*, *oi* > *ei* and *ɔi* > *ɛi*. All other nominals form the definite by adding *i* with no change or assimilation. There is a sizeable list of exceptions to this assimilation rule. In fact, the number of such irregular forms ending in *o* outnumbers the regular forms. No way has been found to account for the exceptions to the general rule of fronting back vowels before definite *i*.

9.6. A lexicon designed to represent all (or as much as possible) of the information about a particular form necessary to its correct formal and semantic use would specify the morphophonemic peculiarities of each form. Toward that end, the following would be indicated for Mende. (1) If a nominal ends in *a*, whether the definite is formed with *a* or *i* or both would be indicated. (2) If the second syllable of disyllabic forms begins with *l*, *n*, *nd*, *t*, *y* or *w*, and the *u*, *o* or *ɔ* that follows is NOT fronted before the definite marker *i*, that fact should be indicated. (3) There should be an indication of which initial consonants do not mutate.

The choice between *a* and *i* for forms such as *ndawa/ndaa* 'leaf' is based on the presence or absence of a medial consonant and no special indication is required.

Forms like *mba gbotoi* (from *mbei gbotongo*) 'plentiful rice' demonstrate that forms derived from verbal potentials must also bear the indication of regular or irregular vowel assimilation. For instance, *kutu* 'to become short' becomes *gutii* (regular assimilation) in *numu gutii* (1 1 1 3 2) 'the black person' but *kpoto* 'to become plentiful' becomes *gbotoi* (not *gbotei*). Irregular vowel assimilation is to be indicated for every form with which it is associated.

²⁰ Similarly in other nominalizations: *kalii waa!* 'Kill the snake!' *kalii waa mei* 'the place of the snake killing', *kalii waa hindei* 'the business of snake killing', *paa mei* 'the place of killing it', *paa hindei* 'the business of killing it'.

SUMMARY

An attempt has been made here to distinguish between the establishment of categories in the lexicon which are intended to reflect the syntactic categories of a grammar of the language and the establishment of classes which reveal information about the distribution of syntactic categories in the lexicon. The first type of category is the most useful for an explanatory description of the syntax of a language and the second is an indispensable component of comparative and typological statements. It is suggested that the categories NOUN and VERB accomplish everything that any other class does and more without concealing the important cross-classificational and derivational distinctions.