

STUDIES

in

AFRICAN LINGUISTICS

AUGUST 1989  
Volume 20, Number 2



Published by the Department of Linguistics  
and the James S. Coleman African Studies Center  
University of California, Los Angeles

## Studies in African Linguistics

Published by the Department of Linguistics  
and the James S. Coleman African Studies Center  
The University of California, Los Angeles

### Editor

Russell G. Schuh

### Executive Board

Merrick Posnansky  
Russell G. Schuh

### Editorial Assistance

Fumio Omori  
Maxine H. Schuh

### Editorial Board

Eyamba G. Bokamba  
George N. Clements  
Gerard M. Dalgish  
David J. Dwyer  
Victoria A. Fromkin  
Talmy Givón  
Robert Hetzron  
Jean-Marie Hombert  
Larry M. Hyman  
Hilda Koopman  
William R. Leben  
Carol Lord  
Ian Maddieson  
Olasope O. Oyelaran  
Carol Myers-Scotton  
John V. Singler

*Studies in African Linguistics* is published three times a year. Occasional supplements are published at irregular intervals and are available to current subscribers at reduced rates. Contributors please see "Guidelines for Contributors" inside the back cover. All correspondence and contributions to the journal should be sent to

The Editor, *Studies in African Linguistics*  
Department of Linguistics  
UCLA  
Los Angeles, CA 90024-1543  
USA

Subscriptions: Individuals: \$12.00 per year, \$22.00 for two years  
Institutions: \$20.00 per year  
Single issue: \$7.00 per issue  
Supplements: variable price depending on supplement  
(Add \$15.00 per year for overseas Air Mail subscriptions.)

Make checks payable to **The Regents of the University of California**

Volume 20, Number 2, August 1989

Copyright © 1990  
by the Regents of the University of California

ISSN 0039-3533

## **CORRIGENDUM**

In *Studies in African Linguistics*, Volume 20, Number 1, the name of the second author of the lead article, “Réanalyse des tons du bambara: des tons du nom à l'organisation générale du système,” was printed incorrectly both at the head of the article and in the Table of Contents. The correct names for the authors of this article are as follows:

**Annie Rialland & Mamadou Badjimé Sangaré**

The Editor regrets that this escaped our attention.



# Studies in African Linguistics

Volume 20, Number 2  
August 1989

## Table of Contents

### Articles

Moira Chimombo and Al Mtenje, <b>Interaction of Tone, Syntax and Semantics in the Acquisition of Chichewa Negation</b>	103
Meterwa A. Ourso, <b>Phonological Processes in the Noun Class System of Lama</b>	151
Bertram A. Okolo, <b>Silence and Ritual Response in Igbo Discourse</b>	179
Ambrose Adikamkwu Monye, <b>A Re-examination of the 9th Vowel Phoneme in Igbo</b>	201
<b>Publications received</b>	217
<b>Conference Announcements</b>	222
<b>Advertising</b>	225
<b>Guidelines for contributors</b>	inside back cover



## INTERACTION OF TONE, SYNTAX AND SEMANTICS IN THE ACQUISITION OF CHICHEWA NEGATION

Moira Chimombo and Al Mtenje  
Chancellor College, Zomba, Malawi

The data for three children learning Chichewa as their first language between the ages of 1.0 and 2.6 were analyzed to identify and describe the patterns of development of tone, morpho-syntax and semantics in the acquisition of negation. Not one of the subcategories of negation was completely mastered by 2.6; in four subcategories the tone patterns were acquired, with incomplete morphology; in no case was the morpho-syntax acquired without the tone. The results for first language acquisition are compared with previous results for bilingual and second language acquisition of Chichewa. The implications of these data for the identification of universals in language acquisition are discussed, as are the implications for phonological theory.

### 1. Introduction

Studies of the acquisition of English negation, e.g. Bloom [1970], have revealed the necessity of studying semantic function alongside syntactic form. This need was confirmed in Chimombo's studies of bilingual (Lb) [1981a] and second language (L2) [1981b] acquisition of Chichewa negation. A follow-up to these two studies, to collect data on first language (L1) acquisition of Chichewa negation [Chimombo 1987] revealed important insights into the acquisition of syntactic tone as it interacts with morpho-syntax and semantics but did not go into detail. The current study is, therefore, an attempt to analyze carefully the interaction between tone, syntax, and semantics in the L1 acquisition of Chichewa negation. As Konopczynski [1979:50] writes:

“Ne pas ... étudier [les frontières prosodiques] équivaut à se priver de toute information sur les véritables débuts de l'apparition de la syntaxe chez l'enfant.”

(Not to study [tonal development] is equivalent to ignoring all information on the true beginnings of syntactic development in the child's language.)

Fortunately, the current study is made possible by the fact that Mtenje [1986, 1987] has studied in depth the tone system of Chichewa, to complement the detailed syntactic analyses of Mchombo [1978]. Furthermore, the acquisition of tone is now being seriously studied in a number of southern Bantu languages, even if detailed results are not yet available, e.g. Demuth [1988] for Sesotho, Moto [1988] for Chichewa, Suzman [1985] for Zulu, and Tsonope [1988] for Setswana. Thus, some progress has been made in answering systematically at least some of the questions Li and Thompson [1978:272] asked on chronology of acquisition, tone rules, and the child's perception of tone in their seminal article on the acquisition of tone. Li and Thompson [1978:283] were aware of the functional role of tone in the syntax of many African languages.

The data are presented as follows: first, details on the three children who were the subjects for this study are given. Then each of the semantic-syntactic categories of negation is discussed in turn: rejection, nonoccurrence, not-knowing, prohibition (negative command and negative permission), nonexistence, and denial. They are considered in this order because the first three categories are all expressed in Chichewa by the negative indicative and the last three by the negative imperative/subjunctive, negative dynamic copula, and negative stative copula respectively. Within each of these sections, a definition of the category is given, with a brief description of the Chichewa tone and morpho-syntax commonly used for expressing that category, and then the pattern of development of the children's forms for expressing the function is presented and discussed. Also, comparison is made with L1 and L2 acquisition of Chichewa negation. The final section presents the overall sequence of development of negation and discusses the implications.

## 2. The Subjects

The first child, A, was audio-recorded for six hours from the age of 1.8,5 to 2.0,5 by her aunt, who was at the time a student at the University of Malawi. A is the third-born child, having two brothers, two and four years older than herself. A's mother is a secretary and her father a civil servant. A is a lively child, and 102 negative utterances were recorded in the course of the six hours.

The second child, B, was audio-recorded for eight hours from the age of 1.6,24 to 1.9,18 by a research assistant who is a friend of the family. She is the second-born child, having a sister four years older than herself. B's mother is a nurse-tutor and her father a university lecturer. B was not very talkative, and only 33 negative utterances were recorded in the course of the eight hours.

The third child, C, was recorded from the age of 1.0,26 to 2.6,9 by the first author. He was audio-recorded for a total of 30 hours from 1.3,2 and a diary



was kept from the age of 1.0,26 to approximately 1.6. (Unfortunately, because of the omission of tone marking in the diary, the diary data are useful only for the analysis of morpho-syntax and semantics of Chichewa negation, not the development of tone.) C is the third-born child, having a sister eight years older (the subject of Chimombo's [1981a] study) and a brother six years older (the subject of Chimombo's [1981b] study). C's mother and father are both university lecturers. C's mother is a native speaker of British English and a fluent second-language speaker of Chichewa, while his father is a native speaker of Chichewa and a fluent second-language speaker of English. At the time of the study, however, C was not bilingual, a conscious decision having been made to address him in Chichewa at all times, up to the age of 2.6. Furthermore, like A and B, he was left in the care of a caretaker who speaks to him only in Chichewa. His limited exposure to English prior to the age of 2.6 is reflected in the fact that only 10 negative utterances in English, out of a total of 710, were recorded in the course of the 17 months.

The following analysis of the acquisition of Chichewa negation is based mainly on C's utterances, because the researchers were unable to continue recording the two girls for reasons beyond the author's control. However, the data from the girls provide useful insights into possible similarities and/or differences in the pattern of acquisition of each of the different semantic categories of negation, so they have been included for comparative purposes.

### 3. The Morphological Structure of the Chichewa Verb and Tone

Chichewa, like many other Bantu languages, shows the following morphological structure in the verb in its most complex form:

- (1) negative -subject -aspectual -tense -object -verb -extensions -final  
 prefix prefix marker prefix prefix root vowel

The structure in (1) is illustrated in (2):

- (2) *si-ndi-ka-na-ngo-mu-pit-ir-a*  
 not-I-conditional-past-just-him-go-benefactive-final vowel  
 'I would not just have gone for him'

Mtenje [1986, 1987] has presented a detailed analysis in which it is shown that some of the morphological elements in (1) trigger interesting tone alternations. Particularly, it is shown that tense, negative, and object markers assign high tones to various domains of the verbal unit, most notably the first syllable, i.e. the negative or subject marker left of the tense prefix, and to the penultimate syllable.

ble.<sup>1</sup> The three positions in which H tone assignment is induced by morphological markers are illustrated in the following affirmative examples using the low-toned verb *-werenga* 'read':

- |     |                     |                   |                |             |
|-----|---------------------|-------------------|----------------|-------------|
| (3) | subject marker-     | tense marker-     | verb root-     | final vowel |
| a.  | <i>ndí-</i>         | <i>na-</i>        | <i>wéreng-</i> | <i>a</i>    |
|     | I-                  | recent past-      | read-          | final vowel |
|     | 'I read recently'   |                   |                |             |
| b.  | <i>ndí-</i>         | <i>ma-</i>        | <i>weréng-</i> | <i>a</i>    |
|     | I-                  | present habitual- | read-          | final vowel |
|     | 'I read habitually' |                   |                |             |

In (3a), the recent past tense prefix assigns a H to the syllable immediately to its right, while in (3b), the present habitual tense prefix places a H on the first syllable in the verb phrase, i.e. the subject marker, as well as on the penultimate syllable. Similar tone assignment processes occur when the verb takes a negative marker, as illustrated in (4):

- |     |                        |                           |
|-----|------------------------|---------------------------|
| (4) | Affirmative            | Negative                  |
| a.  | <i>ndí-dzá-wérenga</i> | <i>si-ndí-dza-werénga</i> |
|     | I-future-read          | not-I-future-read         |
|     | 'I will read'          | 'I will not read'         |
| b.  | <i>ndi-ná-wérenga</i>  | <i>sí-ndí-na-werénga</i>  |
|     | I-past-read            | not-I-past-read           |
|     | 'I read'               | 'I didn't read'           |

Here the negative marker places a H on the penultimate syllable in (4a) while in (4b) the H is placed on both the initial and penultimate syllables of the verb phrase. The H on the second syllable of the verb phrase results from an independent rule of Tone Doubling which copies a H one syllable to its right under certain conditions which are irrelevant to this discussion.

<sup>1</sup>Chichewa has two level tones, high (H) and low (L). Contour tones are also attested, but only as a combination of two level tones. Thus a L and H on one vowel represents a rising tone (LH) while the reverse (HL) yields a falling tone. In this paper ' will represent a H, ^ a rising tone, ^ a falling tone, and low tones will be unmarked. Verbs generally fall into two major tone groups: those which are low-toned throughout (low-tone verbs) and those with high tones on the last two syllables (high-tone verbs).

#### 4. Development of Expression of Semantic Categories of Negation

The acquisition of Chichewa negation was, at least for C, neither easy nor fast, as the discussion of the development of expression of semantic-syntactic categories of negation with the appropriate tone patterns below shows. In fact, it is impossible to state that C had actually acquired, by the age of 2.6, competence to express even one of the categories of negation with complete accuracy, i.e. correct tone, morpho-syntax, and semantics combined. As stated above, the discussion of each of the semantic-syntactic categories follows the logical order of the relationship between syntactic form and semantic function: negative indicative to express rejection, nonoccurrence and not-knowing, negative imperative/subjunctive to express negative command/permission, negative dynamic copula to express nonexistence, and negative stative copula to express denial. This order reflects neither the frequency nor the order of appearance of expression of each category by the three children.

##### 4.1. Rejection.

Some object or action or happening either exists in the context or is imminent or about to exist in the context, and is opposed by the child. [Bloom and Lahey 1978:189]

Rejection is signalled by the negative indicative in Chichewa, normally with the verb *-funa* 'want'. The children signalled rejection syntactically with either the present progressive or the reduced present progressive. The former is formed as follows:

- |   |  |
|---|--|
| (5) a. <i>ndi-ku-fúna</i><br>I-prog-want<br>'I want'                          | <i>sí-ndí-ku-fúna</i><br>not-I-prog-want<br>'I don't want'                     |
| b. <i>u-ku-yáng'ana</i><br>you-prog-look<br>'you are looking'                 | <i>s-ú-ku-yang'ána</i><br>not-you-prog-look<br>'you aren't looking'            |
| c. <i>a-ku-séwélétsa</i><br>he/she-prog-play with<br>'he/she is playing with' | <i>s-á-ku-sewelétsa</i><br>not-he/she-play with<br>'he/she isn't playing with' |

The tone pattern in the above affirmative verbs, all of which are underlyingly low-toned, is LHL. The tense marker *-ku-* has the effect of assigning a H tone to a following syllable, which is then copied to the next syllable by the Tone Doubling rule under the appropriate conditions. This accounts for the H tone on

the second syllable of the verb root in (5c). In the negative verbs, the tone pattern is HLHL.

The reduced form of the present progressive, which is used frequently to signal wish, is the following:

- |        |               |               |                 |                   |                  |
|--------|---------------|---------------|-----------------|-------------------|------------------|
| (6) a. | <i>a-fúna</i> | ‘he wants’    | <i>s-á-funa</i> | ‘he doesn't want’ |                  |
|        | he-want       |               | not-he-want     |                   |                  |
|        | b.            | <i>u-fúna</i> | ‘you want’      | <i>s-ú-funa</i>   | ‘you don't want’ |
|        |               | you-want      |                 | not-you-want      |                  |

This was the form used most frequently by both caretakers and children in the present study. The affirmative verb takes a LHL tone pattern (like the full present progressive form) while the negative takes a HL pattern.

For all three children, rejection was by far the most productive category. A produced 33 single-morpheme (SMU) and 8 multi-morpheme utterances (MMU), B produced 15 SMU and 1 MMU, and C produced 201 SMU and 311 MMU. B's MMU was anaphoric, not syntactic, so it is not considered in the analysis of the development of syntactic expression of rejection.

With respect to SMU, C was first recorded expressing rejection at the age of 1.0,27. His earliest taped utterances signalling rejection (from 1.3,1 to 1.4,28) were likewise SMU, showing some variation in the tone pattern of *íyayi* ‘no’ from HL (the correct tone pattern, similar to that of the reduced progressive of (2) above) to HLH and Rising LL. Then, from 1.5,27 to 1.9,1 the overwhelming majority of rejection utterances were *nǒ*, said with rising intonation.<sup>2</sup> A also used this rising intonation for *nǒ*, but B did not, using instead the reduplicated *nóno* with the same HL tone pattern concurrently being used for *íyayi* ‘no’.

The earliest recorded attempt at the syntactic verb phrase *sí-ndí-funa* ‘I don't want’ was produced by A at 1.8,5. It did not appear to be a prefabricated pattern because of the complexity of her affirmative utterances at that age:

- (7) A 1.8,5 (Aunt (R) and A had been eating, and A had dropped some food on the floor, which R had stopped her from eating)

R:	<i>ósadyá/</i>	‘don't eat it’
	you-not-eat/	

<sup>2</sup>It should be noted that all three children regularly used *no* or *nóno* as a SMU or even in combination with other Chichewa words. In view of the fact that even in adult monolingual Chichewa speakers' speech this word is common, it was counted as a Chichewa loan-word for the purposes of analysis of data in the present study, together with such forms as *éh-éh* said with clearly negative intention.

- A: *eh!/átatá/* 'don't eat it'  
*eh!/you-not-eat/*
- R: *mhm/iii!/* (laughs)
- A: *úfuná/* (said with negative tone = *síndífuna*)  
*you-want/* 'I don't want'
- R: *mm?/*
- A: *Ánnie/Ánnie/átata/* (referring to herself) 'don't eat'  
*Annie/Annie/you-not-eat/*

None of A's MMU were longer than one verb phrase, as in the above example, possibly because she was recorded for too short a period.

Unlike A, C clearly did not begin until 1.10 to analyze the form *síndífuna* 'I don't want' (or *súfuná* 'you don't want' as it was more frequently, both A and C having difficulty switching from second to first person subject marker). His first attempt (at 1.9,1) at the syntactic verb phrase *síndífuna* 'I don't want' came out as the prefabricated pattern *túnǎ*. This "verb phrase" was uttered with a final rising intonation and may not have evidenced a tone pattern at all, except for the fact that there appeared to be some lengthening of the vowel to compensate for the missing negative and subject marker morphemes. Furthermore, it is important to note that the pattern for a negative question is HLHFalling, which was undoubtedly a form C heard frequently, possibly creating confusion as to the target negative statement tone pattern. By 1.10,1, however, C had changed the tone pattern to HL, with the compensatory vowel lengthening suggesting the assignment of the H to the correct initial syllable, even if the morphology was still incorrect.

Again, unlike A, at 1.10 C began to add a complement. The following is an exchange in which can be seen both attempts at analysis of the hitherto prefabricated pattern and also the addition of a complement, in fact the first records of these developments:

- (8) C 1.10,12 (C has finished having a bath but doesn't want to get out of the water. Mother (M) doesn't understand the exchange immediately.)

C: *sâmbá/*  
*bath/*

M: *wasamba kále/* (Sister, Tina, coughs)  
*you-perf-bath already/* 'you've already had a bath'

- dzúká/ímá/íwe, taíma/* 'get up/stand up/please stand  
rise/stand/you please-stand/ up, will you?'
- C: *Tína!!/*
- M: *íma/* 'stand up'  
stand/
- C: *túná sámhá/* (said with negative tone, interpreted by M  
want bath/ as meaning *síndífuna*, but probably  
meaning *Tína sáfuna kusámhá* 'Tina  
doesn't want to have a bath')
- M: *súna?/súfunakusámhá?/* 'you don't want to have a  
not-want/not-you-want to-bathe/ bath?'
- C: *súná/* (said with negative tone = *súfuna*, but  
not-want/ probably meaning *sáfuna* 'she doesn't  
want')
- M: *ufúna kusámhá?/* 'do you want to have a  
you-want to-bathe?/ bath?'
- C: *sámhá/*  
bath/
- M: *dzuka/* 'get up'  
rise/
- C: *íhíyúná/* (said with negative tone = *síndífuna* 'I  
don't want')
- M: *índé, ukabválé/Tína asámbe/*  
yes (emphatic) you-go-dress/Tina she-bathe/  
'yes, you must go and get dressed/Tina has to have a bath'

From that age on, C experienced a protracted struggle to include all the required elements in his utterances expressing rejection. His attempts at *síndífuna* 'I don't want', which were targeted at *súfuna* but initially far more phonemically unstable than A's, varied as follows (in addition to the two variations in (4) above):

- (9) a. *fíuna*                      b. *síuna*                      c. *tíndóoná*

From 2.0,1, however, C stabilized with the correct HL tone pattern, with various attempts at the negative indicative marker:

- (10) a. *fúfuna*                      b. *túfuna*                      c. *súfuna*  
       d. *núfuna*                      e. *ndífuna*                      f. *úfuna*

The last form, *úfuna*, distinguished like the others from the affirmative only by tone in A's and C's speech, and thus suggesting the salience of tone over morpho-syntax, was the overwhelmingly preferred form through to the end of the study, when C was 2.6,9. Even at that age, C's most common strategy was reduction of the negative marker *si-* and dependence on tone to signal rejection, and he still generally did not produce the correct subject marker (normally *-ndi-* 'I', at least in negative utterances. There was one occasion, however, when he produced an almost target-like utterance:

- (11) C 2.4,15 (M has just finished reading *Mr. Bump* to C. Brother (B) asks)

- |   |                                  |  |
|---|----------------------------------|--|
|   | B: <i>Napólo, ufúna Tíntin?/</i> | 'Napolo, do you want <i>Tíntin</i> ?'<br>Napolo you-want <i>Tíntin</i> /     |
| → | C: <i>íyayi/sínkufuna/</i>       | 'no, I don't want it'<br>no/not-I-prog-want/                                 |
|   | M: <i>síndífuna/</i>             | 'I don't want it'<br>not-I-want/   |
| → | C: <i>ndífufúna/</i>             | (said with negative tone = <i>síndífuna</i><br>I-fu-want/ 'I don't want it') |

Notice that, when he attempted an immediate imitation, he was much less successful than in his spontaneous utterance. The correction made by the mother was unnecessary.

Neither in Lb nor in L2 acquisition did the children experience such difficulty as C in L1 acquisition of the negative indicative forms to signal rejection, although in both cases the earliest forms were clearly prefabricated patterns of a similar kind, *súfuna* 'you don't want'. By the age of 1.9 in Lb acquisition, the child had effectively acquired the negative indicative marker, and by 1.10 had begun to analyze the subject marker, which was acquired by 2.3. In L2 acquisition, unlike both L1 and Lb acquisition, after the initial use of prefabricated pat-

terns, the child used first the affirmative of *-luma* 'want' followed by a verb in the negative imperative and then the free first person subject marker in conjunction with the negative indicative third person verb phrase, *ine sa-* (me not-he-) to mean *sindi-* (not-I-) 'I don't ...'. With respect to the acquisition of tone patterns, although these were not specifically studied in L1 and L2 acquisition, the L1 learner mastered tone in Chichewa alongside the morpho-syntax, while the L2 learner did not appreciate the significance of the role of tone in Chichewa morpho-syntax during the six months of the study.

#### 4.2. Nonoccurrence.

An action event does not occur. [Bloom and Lahey 1978:199]

In Chichewa, nonoccurrence is signalled in one of two ways: either by a variety of equivalents of the English *can't*, which none of the children attempted in the course of the present study, so they will not be described, or by the negative indicative of a number of tenses, including the present progressive as described above, the present habitual, the immediate future, the past simple, and the perfective. Examples illustrating tone realizations in these verb forms are given below. The verbs *-luma* 'bite' and *-seweletsa* 'play with' are underlyingly low-toned. First, the present habitual takes the following forms:

- |         |                            |                              |
|---------|----------------------------|------------------------------|
| (12) a. | <i>chí-ma-lúma</i>         | <i>sí-chí-(má)-luma</i>      |
|         | it-habit-bite              | not-it-habit-bite            |
|         | 'it bites'                 | 'it doesn't bite'            |
|         | b. <i>ndí-ma-sewelétsa</i> | <i>sí-ndí-(má)-seweletsa</i> |
|         | I-habit-play with          | not-I-habit-play with        |
|         | 'I play with'              | 'I don't play with'          |

In the affirmative, the tone pattern is HLHL, while in the negative the pattern is HL. Note that in the negative form the tense/aspect marker is optional, making it identical to the negative reduced present progressive.

The immediate future is distinguishable from the reduced form of the present progressive only by tone pattern, as is seen below:

- |         |                 |                    |
|---------|-----------------|--------------------|
| (13) a. | <i>chí-luma</i> | <i>sí-chi-lúma</i> |
|         | it-bite         | not-it-bite        |
|         | 'it will bite'  | 'it won't bite'    |



- |  |   |
|--|---|
| b. <i>ndí-seweletsá</i><br>I-play with<br>'I will play with' | <i>sí-ndí-sewelétsá</i><br>not-I-play with<br>'I won't play with' |
| c. <i>ndí-gwá</i><br>I-fall<br>'I will fall'                 | <i>sí-ndí-gwá</i><br>not-I-fall<br>'I won't fall'                 |

Note that this tense, like the reduced present progressive, is not morphologically marked by any tense prefix. In the affirmative, the tone pattern is HL. In the negative forms, a H is placed on the penultimate syllable only, thereby creating a LHL pattern (13a-b), except with a monosyllabic verb root, in which case the tone pattern is LH (13c).

In the past simple, the forms are as follows:

- |   |   |
|---|---|
| (14) a. <i>ndí-ná-luma</i><br>I-past-bite<br>'I bit'              | <i>sí-ndí-na-lúm-e</i><br>not-I-past-bite<br>'I didn't bite'                |
| b. <i>ndí-ná-séweletsá</i><br>I-past-play with<br>'I played with' | <i>sí-ndí-na-seweléts-e</i><br>not-I-past-play with<br>'I didn't play with' |

Here we see that the tone pattern in the affirmative forms is LHL, while the negative forms take a HLHL pattern, with the second H placed on the penultimate syllable.

The perfective negative is morphologically identical to that of the past simple, being distinguished from it only by tone, as can be seen in the following examples:

- |  |  |
|--|--|
| (15) a. <i>ch-a-luma</i><br>it-perf-bite<br>'it has bitten'        | <i>sí-chi-na-lúm-e</i><br>not-it-perf-bite<br>'it hasn't bitten'               |
| b. <i>nd-a-seweletsá</i><br>I-perf-play with<br>'I've played with' | <i>sí-ndi-na-seweléts-e</i><br>not-I-perf-play with<br>'I haven't played with' |

The affirmative perfective forms are low-toned throughout, while the negative forms have a H tone on the penultimate syllable, yielding a LHL pattern.

Of the three children, B produced only one SMU signalling nonoccurrence, at 1.9,18, and A produced six SMU and one spontaneous MMU between the ages of 1.8,5 and 1.9,14. A's MMU appears not to have been a prefabricated pattern, because A used the verb in other contexts. It appears to be more complex than C's utterances at the same age, since it does not evidence the same pattern of reduction:

(16) 1.9,14 (Family eating meal)

- R: *takhálá pansi/* 'please, sit down'  
 please-sit down/
- A: *mam/mam/Ale khála/nóninó/nô/nô/iye/iye/*  
 mam!/mam!/Alec sit/nonino/no/no/he/he
- *ənikhálá/* (said with negative tone = *sindikhála* 'I  
 not-I-sit/ won't sit down')
- F: *tíyé ukhále/* 'come on, you must sit down'  
 let's-go you-sit/

Thus, the analysis focuses on the pattern of development of C's utterances, of which there were 65 signalling nonoccurrence. Of these, 43 were MMU, some of which reveal an interesting pattern of overgeneralization of the verb *-funa* 'want' from rejection to signal past negative indicative nonoccurrence events.

C's earliest taped utterances signalling nonoccurrence (from 1.6,18 to 1.7,15) were SMU, *nǒ* being consistently said with a rising intonation, as were similar utterances used to express rejection at the same age. His first attempts at a syntactic verb phrase to signal nonoccurrence (from 1.7,15 onwards) were reduced forms which retained the correct tones for the maintained syllables, such as in the following example:

(17) C 1.7,16 (playing with Legos)

- M: *Kodí Napólo, ukuchíta chani?/*  
 question marker Napolo you-prog-do what/  
 'what are you doing, Napolo?'
- C: *tá?/* (grandmother (G) laughs)  
 what?/

M: *cha?*/  
what?/

C: *aǎh/táyá*/  
aah/throw away/

M: *wataya* *cháni?/watayacháni?/watayacháni?/*  
you-perf-throw away what/  
'what have you thrown away?'

C: *taya/taya*/  
throw away/

G: *watáya?* 'have you thrown away?'  
you-perf-throw away?/

M: *ukufúna* *kutáya* *kapena* *watáya* *kále?/*  
you-prog-want to-throw or you-perfect- already/  
away throw away  
'do you want to throw away or have you thrown away already?'

C: *mmm*/

M: *súnataye* *chili chónse/*  
not-you-past-throw away it-is all/  
'you didn't throw away anything'

C: *táya*/  
throw away/

M: *súnatáye/* 'you didn't throw away'  
not-you-past-throw away

→ C: *tááyee/* (said with negative tone =  
throw away/ *síndínatáye* 'I didn't throw  
away')

M: *súnatáye/* 'you didn't throw away'  
not-you-past-throw away/

- |    |                            |                       |
|----|----------------------------|-----------------------|
| S: | <i>wataya</i> <i>chá?/</i> | ‘what have you thrown |
|    | you-perf-throw away what/  | away?’                |
|    |                            |                       |
| C: | <i>nóno/</i>               |                       |
|    | no/                        |                       |

This utterance attempted the negative indicative past. The next two MMU, imitated at 1.8,11, attempted the perfective. All three deleted the negative marker, the subject marker, and the past tense marker, preserving only the tone of the disyllabic verb (with compensatory vowel lengthening in the first case) and making the required change of the final vowel from *-a* to *-e*. The other two MMU were the following:

- (18) a. *góne*        in imitation of M's *sanagóne*        ‘he hasn't gone to sleep’  
       b. *támwe*      in imitation of M's *sunakwáne*    ‘you haven't eaten enough’

Of the remaining 39 MMU, 20 were spontaneous, and after 1.10,3, when the first spontaneous MMU signalling nonoccurrence was recorded, only 8 SMU were recorded. The first spontaneous MMU was the one example of overgeneralization of the negative dynamic copula to signal a perfective nonoccurrence event instead of nonexistence:

- (19) C 1.10,3 (C looking out of dining room door toward garage)

- |      |  |   |
|------|--|---|
| C:   | <i>dááwa</i> (= <i>amdala</i> )  | (term of respect for old<br>man, name C used to refer<br>to gardener) |
|      |  |   |
| M:   | <i>amdálá álí kúti?/</i><br>amdala    he-is    where/                          | ‘where is amdala?’  |
|      |  |   |
| → C: | <i>yíbe pítá/</i><br>is-not    go/   | (meaning <i>sanapíte</i> ‘he hasn't<br>gone’)                         |
|      |  |   |
| M:   | <i>sánapíte/ali</i> <i>mu garája/</i><br>not-he-past-go/he is    in    garage/ | ‘he didn't go/he's in the<br>garage’                                  |

In this case, C preserved the correct tone patterns for both the form signalling nonexistence (reduced from *palíbe* ‘there isn't’, discussed below) and the affirmative form of the perfective *apítá* ‘he has gone’. The resulting tone pattern, which by reduction is HLH instead of LHLH, bears no resemblance to the target

pattern of LHL. Interestingly, a strikingly similar overgeneralization was recorded on one occasion in L2 acquisition [Chimombo 1981b:255], in which the child corrected himself in the course of the conversation and which involved the same verb, *-pita* 'go'.

For the following two months, C produced no recorded utterance at all signalling nonoccurrence, but the imitations of the negative indicative past and perfective (of which 10 were recorded after 1.10,3) continued. Gradually, however, C was able to include the subject marker on negative indicative verbs in the past and perfective and finally the negative marker occasionally as well, but the latter appeared on only three utterances in the course of the last three months of the study. Ironically, though, while C achieved the correct tone pattern on reduced utterances, he made errors in the tone pattern of two of the three morphologically complete negative utterances. The following is an example of correct morphology with incorrect tone, despite the fact that the correct tone pattern had been given in an immediately preceding utterance, for C to simply copy:

(20) C 2.6,9 (Aunt visiting home with young baby)

C: *mamí, mwana achápé mano/mwana achápé manó/*  
 mummy baby he-brush teeth/baby he-brush teeth/  
 'mummy, the baby should brush his teeth'

M: *áh?/*

C: *mwáná áchápé mano/* 'the baby should brush his  
 baby he-brush teeth teeth'

M: *mwáná áchápé mano?/* 'the baby should brush his  
 baby he-brush teeth/ teeth?'

C: *eee/*  
 yes

M: *alíbe mano/* 'he hasn't got any teeth'  
 he-is-without teeth/

C: *áh?/*

M: *sanakúle/* 'he hasn't grown up'  
 not-he-perf-grow/

- C: *sánakúle/* (said with past tone instead of perfective) 'he didn't grow up'  
 not-he-past-grow/  
 M: *sanakúle/* (correcting tone) 'he hasn't grown up'  
 not-he-perf-grow/

Meanwhile, alongside this development, between 2.0,2 and 2.4,15, ten over-generalizations of the negative indicative reduced present progressive form for rejection, *síndífuna* 'I don't want', rendered by C as *súfuna* 'you don't want' or variants, were recorded as signalling past or perfective nonoccurrence events. The following is one example:

(21) C 2.1,24 (C lying on settee)

- M: *wágoná?/* 'are you sleeping?'  
 you-perf-sleep/  
 C: *mamí/*  
 mummy/  
 M: *eeé/eeé/*  
 yes/yes/  
 C: *mamí/*  
 mummy/  
 M: *eh-éh!/*  
 C: *ágoná/* (meaning *ndígona* 'I will sleep')  
 he-sleep/  
 M: *eee/watópá?/* 'yes/are you tired?'  
 yes/you-perf/tire/  
 C: *atópá/* (meaning *ndatópá* 'I'm tired')  
 he-perf-tire/  
 M: *mhm/chábwino/*  
 mhm/OK/

→ C: *úfuná atópá/* (said with negative tone = *síndífuna*  
 you-want he-perf-tire *kutópa* ‘I don't want to be tired’  
 meaning *sindinatópe* ‘I'm not tired’)

M: *mím?/*

→ C: *úfuná/* (said with negative tone = *síndífuna*  
 you-want/ ‘I don't want’)

M: *súfuná kutópa?/unéné kuti “sindinatópe”/*  
 not-you-want to-tire/you-say that not-I-perf-tire/  
 ‘you don't want to be tired?/you should say “I'm not tired”’

→ C: *atópe/* (said with negative tone =  
 past-tire/ *sindinatópe* ‘I'm not tired’)

M: *sindinatópe/* ‘I'm not tired’  
 not-I-perf-tire/

Some other examples follow:

- (22) a. *úfuná méza* meaning *sindinaméze* ‘I haven't swallowed’  
 b. *úfuná wátha* meaning *sichináthe* ‘it isn't finished’  
 c. *úfuná atsíríza* meaning *sindinatsíríze* ‘I haven't finished’

This pattern of overgeneralization of *-funa* ‘want’ is similar to that observed for other semantic categories discussed below.

In the meantime, the negative indicative immediate future was attempted 15 times. The following is an early example, showing the same pattern of reduction of negative and subject markers with preservation of the tone pattern as for the negative indicative past and perfective, despite the fact that it was an imitation:

(23) C 1.9,18 (C had been crying because he was scared of a moth)

S: *chapítá/* ‘it has gone’  
 it-perf-go/

- C: *pitáá/*  
go/
- S: *eee/usaópeě/* 'yes/don't be afraid'  
yes/you-not-fear/
- C: *óópeě/* (said with negative tone = *ndisaópe*  
fear/ 'I shouldn't be afraid')
- S: *eee/* (i.e. 'no')  
yes/
- C: *eemá/uumá/*  
bite/bite/
- S: *sichikulúma/* 'it won't bite you'  
not-it-you-bite/
- C: *úúmaa/* (said with negative tone = *sichindilúma*  
you-bite/ 'it won't bite me')
- S: *eee/* (i.e. 'no')  
yes/

C did, however, attempt the object marker *-ku-* 'you', the first *u-* of *úúmaa* above, instead of *-ndi-* 'me'.

On eight occasions, C used the negative indicative immediate future to signal nonoccurrence spontaneously, and on two of these occasions it was used correctly without reduction of the negative marker, but with the wrong tone pattern, as was noted above in connection with the negative past and perfective verbs. Here is one example:

(24) C 2.4,1 (C having breakfast)

M: *ukuséweletsa míkaka/*  
you-prog-play with milk/  
'are you playing with your milk?'

- C: *síndiséyetsa/* (with wrong tone pattern: should be  
not-I-play with/ *síndisewelétsa* 'I won't play with it')



M: *ufúna tithí...tithíre tíyi?/*  
 you-want we-add tea/  
 'do you want us to add tea?'

C: *thíre tíyi/* (M pours tea into a cup)  
 add tea/

In view of the fact that the girls produced only eight utterances signalling nonoccurrence, of which only one was a syntactic negative, it is not possible to state how general C's pattern of overgeneralization of tone and morphology is in children learning Chichewa as a first language. It seems likely that such a pattern is idiosyncratic, although the discussion of denial, below, suggests that similar kinds of overgeneralization appear in other children's speech too.

One parallel between the L1 and L2 acquisition of Chichewa negation was mentioned above in connection with the use of the negative dynamic copula to signal nonoccurrence. Apart from that, there were no similarities at all between the L1 data and either the Lb or the L2 data. In fact, in both Lb and L2 acquisition, the children seemed to have much less difficulty mastering the negative indicative forms in the different tenses, so were able to express syntactically with considerable accuracy the nonoccurrence events they experienced. In the case of Lb acquisition, nonoccurrence was expressed syntactically from 1.10 onwards, with errors in subject agreement but no reduction and without errors by 2.3. It is possible that A was expressing nonoccurrence syntactically with the correct form of the negative indicative by that age too, since her one MMU that was recorded at 1.9,14 was close in form. Unfortunately, A was not recorded expressing nonoccurrence syntactically again. With respect to L2 acquisition, as was already mentioned in connection with rejection, the child had trouble learning the correct form of the subject marker, but from quite early on used the appropriate negative marker. He also, however, had trouble overgeneralizing the final *-e* of the negative past/perfective indicative verb to the present progressive form, a mistake which C did not make in his expression of nonoccurrence, only, as is seen below, in negative command and permission.

### 4.3. Not-Knowing.

The category of not-knowing includes such stative verbs as *know*, *understand*, and *think*.  
 [Chimombo 1981b:27]

In Chichewa, however, there are two ways of signalling not-knowing. There is, first, a one-morpheme response having the meaning 'I don't know', *kaya*, which takes one of two tone patterns, either L or LH. Secondly, there are the negative indicative forms of the verbs *-dziwa* 'know', *-mva* 'understand', and -

*ganiza* 'think/hope'. The tone patterns for the present progressive tense have already been given, but are repeated here for the appropriate verbs:

- |         |                   |                      |
|---------|-------------------|----------------------|
| (25) a. | <i>ndi-ku-mva</i> | <i>sí-ndí-ku-mva</i> |
|         | I-prog-hear       | not-I-hear           |
|         | 'I understand'    | 'I don't understand' |
| b.      | <i>a-ku-dzíwa</i> | <i>s-á-ku-dzíwa</i>  |
|         | he-prog-know      | not-he-know          |
|         | 'he knows'        | 'he doesn't know'    |

Note the pattern of (25a), for a monosyllabic verb root. There is, however, another tense whose tone patterns have not yet been discussed, the past habitual, which C used in one instance, in imitation of his brother. The affirmative and negative tone patterns for this tense are as follows:

- |         |                    |                        |
|---------|--------------------|------------------------|
| (26) a. | <i>ndi-má-mvá</i>  | <i>sí-ndí-ma-mvá</i>   |
|         | I-past habit-hear  | not-I-past habit-hear  |
|         | 'I understood'     | 'I didn't understand'  |
| b.      | <i>a-ma-dzíwa</i>  | <i>s-á-ma-dzíwa</i>    |
|         | he-past habit-know | not-he-past habit-know |
|         | 'he knew'          | 'he didn't know'       |

It is undoubtedly the ease with which Chichewa speakers can say 'I don't know' that accounts for the early introduction of this semantic category into the children's negative repertoire, unlike studies of the acquisition of negation in other languages. The first utterance signalling not-knowing was recorded at the age of 1.7,15 for C, although B was also recorded producing the same utterance at just four days older. Here is one of B's SMU:

(27) B 1.7,19 (Researcher (R) showing B pictures)

- |   |                               |                   |
|---|-------------------------------|-------------------|
|   | R: <i>ndi cháni chiméné?/</i> | 'what's that?'    |
|   | is what that/                 |                   |
| → | B: <i>kayá/</i>               | 'I don't know'    |
|   | I-don't know/                 |                   |
|   | R: <i>súdzíwa?/</i>           | 'don't you know?' |
|   | not-you-know/                 |                   |

However, the fact that only seven utterances were recorded for all three children throughout the period of study indicates that young children do not feel the need to express not-knowing very frequently. Furthermore, only two of the seven utterances were syntactic verb phrases as opposed to the SMU *kaya*. Both of these were produced by C, one at 2.0,16 and the other at 2.4,15. The first was entirely spontaneous and the second a spontaneous imitation. Here is the first one:

(28) C 2.0,16 C playing with nuts and bolts toy)

M: *akumánga, kumásula/* (commenting to nanny) *kumánga,*  
 he-prog-do to-undo/ to-do

*kumásula/éèe, wángofátsa ndí kumánga/*  
 to-undo/yes he-perf-only-be quiet with to-do/

‘he’s doing it up and undoing it, doing it up, undoing it/yes, he’s just quietly doing it up’

C: (soundplay) *úya kúká úwáng’anga/*

M: (laughs) *ndíyé kuti cháni?/síndikumva/*  
 so to-say what/not-I-prog-hear/

‘what does that mean?/I don’t understand’

→ C: *súkumva/* ‘you don’t understand’  
 not-you-prog-hear/

M: *eee/* (i.e. ‘no’)  
 yes/

Interestingly, this example shows no reduction of the negative marker, and makes the necessary subject marker switch from *-ndi-* ‘I’ to *-u-* ‘you’, although using the singular form for ‘you’ instead of the polite plural form *-mu-*. The second was:

(29) *mámadzíwá* (in immediate imitation of B’s *sámadzíwa* ‘he didn’t know’)

This example reveals the regressive assimilation which was common in earlier utterances, particularly with monosyllabic verbs expressing prohibition, as is seen below. It seems, therefore, that the syntactic expression of not-knowing depends

purely on the child's growing syntactic competence in production of the negative indicative form, since the child can, at least with *kaya*, manage without syntax.

Thus it is not really possible to talk about a pattern of L1 acquisition of tone, syntax, or semantics within this category. In Lb acquisition, the category of not-knowing was not identified at all. In L2 acquisition, only six examples of the SMU *kaya* were identified, syntactic negative forms being used from the beginning and totalling 73 in the course of the six-month study. These were probably initially prefabricated patterns, but were very quickly analyzed into the components of the negative indicative form. Both the numbers and the early use of the syntactic negative form in L2 acquisition indicate that not-knowing is a category that older children and adults need to express more frequently than young children.

#### 4.4. Prohibition.

A prohibition means (1) a positive command to not ... ; thus: *you must* (positive) *not-take that* (negative); and (2) the negative of a permission: *you-may-not* (negative) *take* (positive) *that*. [Jespersen 1917:94]

Chichewa distinguishes formally between these two types of prohibition: negative command and negative permission (cf. Harding [1966]). Prohibition of both kinds is signalled by the negative prefix *-sa-*, but with differences in the imperative and subjunctive verb forms, the former signalling negative command and the latter negative permission.

##### 4.4.1. Negative command.

A negative command conveys the information that an act is permanently forbidden by authority, either before or after it has started. [Chimombo 1981b:24]

Imperatives in the affirmative form take the form of the verb root, that is, they do not take a subject marker. Thus, with the exception of monosyllabic verbs, which take the vowel /i/ before the root,<sup>3</sup> affirmative imperatives appear in the base form with the final indicative vowel *a-*. When imperatives are negated, the dummy subject marker *o-* and the negative marker *-sa-* are prefixed to the base form:

(30) a.	<i>ononga</i>	'spoil'	<i>o-sa-ononga</i>	'don't spoil'
			you-not-spoil	

<sup>3</sup>This /i/ is historically regarded as having been part of the root in Bantu.

b. <i>nena</i>	‘say’	<i>ó-sa-néna</i> you-not-say	‘don't say’
c. <i>taya</i>	‘throw away’	<i>ó-sa-táyá</i> you-not-throw away	‘don't throw away’
d. <i>i-dya</i> (dummy vowel)-eat	‘eat’	<i>ó-sa-dyá</i>	‘don't eat’ you-not-eat

As can be seen the affirmative forms take L tones throughout, while the negative forms take a HLHL pattern, except for monosyllabic verb roots which take a HLH pattern.

The children produced a total of 54 utterances signalling negative command. A produced 26, B produced only one (a SMU), and C produced the remaining 27 utterances that were recorded. All except one of A's utterances (the only SMU signalling negative command) were attempts to say *ósadyá* ‘don't eat’, 23 on one day and two four days later. The renditions included /*átatá*/, /*átatyá*/, /*ósatyá*/, and /*átatí*/. The context for all of these utterances, which were basically repetitions of the same original stimulus, was as follows:

(31) A 1.8,5 (R and A eating lunch. A drops a piece of food on floor, picks it up, and puts it back on plate to eat with rest of food)

R: *sádyatu/leka*, *wámva?*  
not-they-eat-emphatic/stop you-perf-hear/  
‘they don't eat that/stop, do you understand?’

A: *ekaka áka*/ (imitating R's *leka*, *wámva?*)

R: *m̃m!*/ *ósadyá*/  
mm/you-not-eat/ ‘mm!/don't eat it’

→ A: *átatyá*/ (imitating R's tone pattern) ‘don't eat it’  
you-not-eat/

R: *m̃m!*/ *ósadyá/eh!*/ *wámva?*/ *ósadyá*/  
mm/you-not-eat/eh/you-perf-hear/you-not-eat/  
‘mm!/don't eat it/eh!/do you understand?/don't eat it’

A: *basi/*  
 enough/

'that's enough'

Thus, it was not possible to establish whether A knew the negative command form, as she was not recorded using it with any other verb. It seems that all her versions of *ósadyá* 'don't eat' were prefabricated patterns.

C's pattern of development was rather different. He first expressed negative command with a SMU at 1.3,17, and 12 of his 27 utterances were SMU. As in the case of the negative indicative, he reduced utterances effectively to the base form + negative tone, until 2.4. He did, however, express negative commands for a variety of verbs, as is seen below. Between 1.7 and 1.9, he produced five reduced utterances, each with a different verb, that were imitations of an immediately preceding utterance by his mother. In respect of imitation, he was like A, except that she was more successful in not reducing negative imperative utterances, but with only one verb in her imperative repertoire. In the case of monosyllabic verbs, however, he used the strategy of phonological assimilation to add the required minimum of two syllables for any word in Chichewa. Here are the first three examples from his speech, at the ages of 1.7,1, 1.7,3, and 1.7,15 respectively:

- (32) a. *gwágwa* (in immediate imitation of M's *ósagwá* 'don't fall')  
 b. *tááyaa* (in immediate imitation of M's *ósatáya* 'don't throw it away')  
 c. *tíínda* (in immediate imitation of M's *ósapínda* 'don't fold it')

C's only spontaneous MMU signalling negative command at this stage did not include a verb, so does not contribute to understanding the pattern of tone acquisition in the verb phrase.

C produced one spontaneous anaphoric utterance signalling negative command at 2.0,1, and then his first spontaneous attempt (still reduced) at signalling negative command with the negative imperative at 2.0,16. In fact, he appeared to be unsure of the correct tone pattern, because he made two different attempts:

- (33) a. *átaya* (both meaning *ósatáya* 'don't throw away')  
 b. *átayé*

At 2.4,1, it seemed as though C had mastered the form for the negative imperative, managing the unreduced form, although two of the three utterances had incorrect tone patterns, and one of these two showed that he had difficulty getting out all the words he intended:

(34) C.2.4,1 (M had been singing various songs, including “*Góna, mwana*” ‘Sleep, baby’)

C: *ufúná* “*áya*”/“*áya*”/“*áya*”/ (meaning *ndifúna* ‘I  
you-want “*Haya*”/“*Haya*”/“*Haya*”/ want’  
 (“*aya*” was C’s name for a tune from *Ipi Tombi*, the South African musical)

M: *tíyimbabe*/“*Háya*”/(singing) “*Haya, haya, haya*”/  
we-sing-yet/“*Haya*”/“*Haya, haya, haya*”/  
‘we’ll sing it later’

→ C: *ósagonanso mwana*/ (meaning *ósayimbánsó*  
you-not-sleep again baby “*Góna, mwana*” ‘don’t  
‘don’t sleep again baby’ sing “Sleep, baby”  
again’

The other two utterances were the following:

(35) a. *ótátí ine ítsika* (meaning *ósati ine nditsíke* ‘don’t say I should get down’)

b. *mámi, ósatsíka* (correct tone, morpho-syntax and semantics ‘mummy,  
don’t get down’)

On only one occasion did C overgeneralize the negative indicative to signal negative command, six weeks after the above examples of apparent full syntactic command of the form (even if with incorrect tone patterns in some cases):

(36) C 2.5,14

C: *máma...chóka*/  
mummy...go away/

M: *ah-äh!*/

C: *pepáni, mámi*/  
sorry mummy/

M: *chábwino*/  
OK/

- C: *pepáni...mamá?/*  
 sorry...mummy/
- M: *mhm?/*
- C: *únena choka mâmí/* (said with negative tone =  
 you-say go-away mummy/ *súnena choka mámi* 'you won't  
 'you won't say go away mummy' say go away mummy', meaning  
*ósanéna choka kwá mámi*  
 'don't say go away to mummy')
- M: *áh?/*
- C: *únena choka mâmí/* (as above)  
 you-say go-away mummy/  
 'don't say go away to mummy'
- M: *eee/ósanena choka kwá mámi/*  
 yes/you-not-say go-away to mummy/  
 'yes/don't say go away to mummy'

Whether this was an indication of other overgeneralizations to come or, more probably, the tail end of overgeneralizations of the negative indicative form, will only be known when later data have been analyzed.

The pattern of development C showed for negative command is again different from that of Lb and L2 acquisition of Chichewa negation. In Lb acquisition, the child had difficulty distinguishing the morphology and meanings of negative command and negative permission, but did not use the negative indicative to signal either at any time. In L2 acquisition, the child also had some difficulty distinguishing the morphology and meanings of the two kinds of prohibition, but more significantly overgeneralized the negative imperative form to contexts where the negative indicative should have been used to signal nonoccurrence or rejection, in other words, the reverse of C's one instance of overgeneralization.

#### 4.4.2. Negative permission.

Negative permission can signal one of three meanings: (1) It is a negative response to another's request to be allowed to do or have something, which the child implies (without stating) that he does not want that person to do or have... (2) It is a negative reaction to another's action (not a commanding action as in rejection)... (3) It indicates fear of an action, or the desire to prevent it. [Chimombo 1981b:25-26]



In Chichewa, negative permission is signalled by the same invariant negative marker *-sa-* as for negative command, but allowing the full range of subject markers prefixed to the verb, which takes the subjunctive suffix *-e* instead of the indicative *-a*:

- |         |  |  |
|---------|--|--|
| (37) a. | <i>u-onóng-é</i><br>you sg-spoil-subjunctive<br>'you should spoil' | <i>u-sa-onóng-e</i><br>you sg-not-spoil-subjunctive<br>'you shouldn't spoil' |
| b.      | <i>a-nén-é</i><br>he-say-subjunctive<br>'he should say'            | <i>a-sa-nén-e</i><br>he-not-say-subjunctive<br>'he shouldn't say'            |
| c.      | <i>mú-dy-é</i><br>you pl-eat-subjunctive<br>'you should eat'       | <i>mu-sá-dy-é</i><br>you-not-eat-subjunctive<br>'you shouldn't eat'          |

Notice that the tone pattern for the affirmative subjunctive is LH, with the exception of monosyllabic verb roots, where the pattern is H throughout (the reverse of the affirmative imperative). For the negative subjunctive, the tone pattern is LHL, again with the exception of monosyllabic verb roots, when the pattern is LH.

The children produced a total of 67 utterances signalling negative permission during the recording sessions, including one anaphoric negative (A's at 1.9,15). Of these 67, 27 were SMU. A and B produced three and four MMU respectively, and C produced 33. All three children displayed similar strategies in the production of these utterances. All three reduced their utterances and depended on tone in the same way at first, except that the two girls reduced fewer elements than the boy. For example, B was able from the beginning to produce the negative marker, even if the subject marker was deleted, while C reduced his negative subjunctive utterances to the root form of the verb plus the final subjunctive *-e*, as can be seen by comparing B's (38a) and C's (38b) utterances, interestingly both using the same verb and both produced at approximately the same age—1.6,24 and 1.6,15 respectively:

- (38) a. *sanámbe* (in immediate imitation of R's *usang'ámbe* 'don't tear it')
- b. *bámbe* (in immediate imitation of M's *usang'ámbe* 'don't tear it')

Thus, from the beginning the girls managed the correct LHL tone pattern, having the minimum required number of syllables and morphemes to accommodate that

pattern, despite the reduction of the subject marker. C, on the other hand, had to reduce the tone pattern to HL in view of the fact that he had only two syllables to attach the tones to. His other negative subjunctive utterances showed some uncertainty as to how to accommodate the LHL pattern into a two-syllable verb phrase, sometimes using vowel lengthening or reduplication as he did in the other negative forms, for example:

- (39) a. *tíinde* (in immediate imitation of M's *usapínde* 'you shouldn't fold it')
- b. *gwíyeě* (in immediate imitation of M's *usagwíre* 'you shouldn't hold it')
- c. *gwiiyéé* (in immediate imitation of M's *usagwíre* 'you shouldn't hold it')

With the monosyllabic verb root, he had less difficulty, although he still had to decide where to fit the three-syllable tone pattern into his reduced two-syllable verb phrase:

- (40) a. *gaagwé* (in immediate imitation of M's *uságwé* 'you shouldn't fall down')
- b. *gágwé* (in immediate imitation of M's *uságwé* 'you shouldn't fall down')

From 1.8,11, C continued to experiment with consonant assimilation and/or compensatory vowel lengthening to accommodate the correct tone pattern while still reducing the verb phrase morphologically:

- (41) C 1.8,11 (C looking at M's Bible, turning the pages)

C: *ichí/*  
*this/*

M: *m̃m?/*

C: *m̃m?/*

M: *cháni?/*  
*what/*

- C: *mbómbó/(=baibulo) ichi/*  
 Bible/ this/
- M: *usaónóge,* *iwe/* ‘you shouldn't spoil it’  
 you-not-spoil-subjunctive you/
- C: *góónge/* (said with negative tone =  
 spoil-subjunctive/ *ndisaónóge* ‘I shouldn't spoil it’)
- M: *usaónóge/* ‘you shouldn't spoil it’  
 you-not-spoil-subjunctive
- C: *gangóónge/* (said with negative tone =  
 not-spoil-subjunctive/ *ndisaónóge* ‘I shouldn't spoil it’)
- M: *díkírá/pang’ónópang’óno/*  
 wait/little by little/

Some other examples follow:

- (42) a. *tááye* (in immediate imitation of S's *usatáye* ‘you shouldn't  
 throw it away’)
- b. *óópě* (in immediate imitation of S's *usaópě* ‘you shouldn't be  
 afraid’)

Notice in particular how C had the problem of learning where to place the H or L tone in a tone pattern when the pattern is underspecified, as in the case of *gangóónge* in (41) above: C managed the correct LHL pattern, but did not place the H correctly, overgeneralizing the rule of Tone Doubling which applies in other contexts so that, instead of a LLLHL pattern, he produced a LHHL pattern.

However, C did attempt to express negative permission with a much greater variety of verbs than either A or B, even over the same age period (1.6-2.0): seven as compared with two each for A and B. After 2.0, C also produced utterances expressing negative permission with eight new verbs in addition to the seven previously used.

Nonetheless, a further indication of the earlier development of B is that she produced spontaneous utterances signalling negative permission at 1.6,24 and 1.8,7, whereas C did not spontaneously do so until 1.9, like A. All three of A's MMU were, however, spontaneous, whereas over the same period 11 of C's were imitations and only five spontaneous. After 2.0,1, though, C imitated only three times and produced 12 spontaneous utterances.

At 2.0,1, however, C began a period of overgeneralization of the tone pattern for the negative indicative reduced present progressive, as is used to signal rejection, the HL pattern. In two cases (cf. (43a) below, both with the same verb, the verb phrase was morphologically correct, the only error being in the tone (HL instead of LH), while in other cases (cf. (43b-c) below) both the tone pattern (HL or HLH instead of LHL) and the morphology (*si-* indicative instead of *-sa-* imperative negative marker, plus order of morphemes) were incorrect:

- (43) a. *úsadye* (meaning *ndisádyé* 'I shouldn't eat')
- b. *súvuwe* (meaning *ndisabvúle* 'I shouldn't take them (shoes) off')
- c. *súvuwé* (meaning *ndisabvúle* 'I shouldn't take them (shoes) off')

The second and third examples are similar to the overgeneralization of the negative indicative marker to signal negative command (36), but the verb ending is subjunctive instead of indicative.

At the same time, C continued to use reduced forms with or without compensating in some way to accommodate the complete tone pattern, until 2.1,2, from which age there were always enough syllables to accommodate the required tone pattern, even if the tone pattern was not always correct, as seen in (43) above. Even at the end of the study, C was not producing the full morphology, although by then the tone pattern had stabilized correctly to LHL for negative subjunctive utterances:

(44) C 2.6,10

M: *tola maLégo/tolá/(C cries) tíye tikámpatse Christopher*  
 pick-up Legos/pick-up/ let's-go we-go-him-give Christopher/  
 'pick up the Legos/let's go and give them to Christopher'

→ C: (as he picks up Legos) *ním-mm/apátse Títofa Légo/*  
*mm-mm/not-give Christopher Lego/*

(said with negative tone = *tisampátse Christopher Légo/* 'we shouldn't give Christopher the Legos')

M: *eee/tolá/mwana wábwinó/tolánsó ziná/tolánsó ízo/ízo,*  
 yes/pick-up/child good/pick-up-also others/pick-up-also those/those

*Napólo/fúlumira/thámanga/tolánsó izó/tíye tikámpatse*  
 Napolo/hurry/run/pick-up-also those/let's-go we-go-him-give

*Christopher maLégo/*  
 Christopher Legos/

'yes, pick them up/good boy/pick up the others too/pick those up too/those ones, Napolo/hurry up/run/pick those up too/let's go and give Christopher the Legos'

C: *tíyeni/* 'let's go'  
 let's-go/

M: *onánsó íyi, íyi/iyínso/iyínso/bwera*  
 see-also this this/this-too/this-too/come

*dzatóle/tikámpatse Christopher/*  
 come-pick-up/we-go-him-give Christopher

'see this one too, this one/this one too/this one too;/come and pick up these ones/we should go and give them to Christopher'

→ C: *íyayi, apátse Títófa/* (said with negative tone =  
 no not-give Christopher/ *tisampátse* 'we shouldn't give them to Christopher')

M: *tisampátseě?/* 'shouldn't we give them to him?'  
 we-not-him-give/

C: *eee/* (i.e. 'no')  
 yes/

At least in these last examples, the H was assigned to the correct syllable in spite of the reduction.

As for negative command, therefore, C's path to the acquisition of the negative subjunctive forms to signal negative permission was not smooth. The Lb and L2 patterns of development of the expression of negative permission are again rather different. In the present study, the children did not seem to confuse the subjunctive with the indicative verb endings which distinguish negative

permission from negative command (in only one case (33b) did C confuse the ending), as was found common in both Lb and L2 acquisition. On the other hand, no attempt was made by the Lb and L2 learners to use the negative indicative marker instead of the negative imperative, nor to overgeneralize the tone pattern, as was found for C in the present study.

#### 4.5. Nonexistence.

Some object does not exist in the context, or the child does not see it in the context, but there is some reason to expect it to be there or to look for it. [Bloom and Lahey 1978:111]

Those utterances signalling both non-presence and nonexistence were coded as signalling nonexistence for the purposes of this study.

In Chichewa, nonexistence is signalled by a negative suffix *-be* which is unique to the dynamic copula *-li-*. (In other contexts the *-be* suffix has other meanings.) The dynamic copula takes a locative prefix *ku-*, *mu-*, or *pa-*. Both the locative prefix and the verb root are underlyingly low-toned:

- |         |              |            |                  |               |
|---------|--------------|------------|------------------|---------------|
| (45) a. | <i>ku-li</i> | ‘there is’ | <i>ku-lí-be</i>  | ‘there isn’t’ |
|         | at/to-is     |            | at/to-is-without |               |
| b.      | <i>mu-li</i> | ‘there is’ | <i>mu-lí-be</i>  | ‘there isn’t’ |
|         | in-is        |            | in-is-without    |               |
| c.      | <i>pa-li</i> | ‘there is’ | <i>pa-lí-be</i>  | ‘there isn’t’ |
|         | on-is        |            | on-is-without    |               |

As can be seen, the affirmative forms take a L tone pattern while the negative ones take a LHL pattern, the attachment of the negative suffix *-be* triggering the assignment of the H tone to the verb root *-li-*. An alternative affirmative form combines the subject marker with the dynamic copula and a locative suffix, but having the same negative forms as (45):

- |         |                  |                     |                     |
|---------|------------------|---------------------|---------------------|
| (46) a. | <i>chi-li-ko</i> | b. <i>chi-li-mo</i> | c. <i>chi-li-po</i> |
|         | it-is-at/to      | it-is-in            | it-is-on            |

The same negative marker *-be* is also used in conjunction with the dynamic copula to signal nonpossession, another subcategory of nonexistence, in which case a subject marker is prefixed instead of a locative marker:

- |         |               |            |          |                  |                |
|---------|---------------|------------|----------|------------------|----------------|
| (47) a. | <i>ndi-li</i> | <i>ndí</i> | ‘I have’ | <i>ndi-lí-be</i> | ‘I don’t have’ |
|         | I-am          | with       |          | I-am-without     |                |

- b. *u-li ndí* 'you have'      *u-lí-be* 'you don't have'  
     you-are with                      you-are-without

Notice that the affirmative here takes a LH tone pattern while the negative takes the same LHL pattern as for the locative forms discussed above. This form was, however, only attempted once in the course of the study, by C, as shown in (54) below.

The three children produced a total of 35 recorded utterances signalling nonexistence. In spite of the fact that A produced only two of these and B only four, their utterances provide confirmation of the pattern of development in C's utterances. This pattern seems to have been quite smooth. C and A initially (from 1.7,3 to 1.10,1) used a strategy of reduction of the initial locative morpheme, preserving only the last two morphemes, with the correct HL tone pattern for these morphemes, as in the following examples:

- (48) a. *bíbe* (in immediate imitation of M's *palíbe* 'there isn't')  
       b. *yíbe* (in immediate imitation of S's *mulíbe muno* 'there isn't any here')  
       c. *íbe* (in immediate imitation of aunt's *kulíbétu* 'there isn't any at all')

After the initial reduction, from 1.7,29, C added another strategy, that of compensatory vowel lengthening and/or assimilation to accommodate the correct tone patterns, although at times the tone pattern was not correct, as can be seen in some of the following examples:

- (49) a. *bííbe* (self-imitation after (48a) 'there isn't')  
       b. *íbííbee* (in imitation of M's *palíbe* 'there isn't')  
       c. *biibéé* (in immediate imitation of M's *mpunga palíbé* 'there isn't any rice')  
       d. *íibe* (in immediate imitation of M's *palíbe* 'there isn't')

In fact, only (49a) and (49d) were correct in tone pattern.

After 1.9,18, only C produced just one utterance of this type, of which there had been 20 up to that age. A appeared to master much more quickly the full form. B never reduced utterances signalling nonexistence, only failing to produce the difficult liquid /l/ and, on one occasion, the initial consonant:

(50) a. *paíbe* (said completely spontaneously 'there isn't')

b. *aíbe* (in self-imitation of (50a) 'there isn't')

B soon combined the above prefabricated pattern with another morpheme:

(51) B 1.9,18 (B had asked R to strap her doll on her back)

R: *nsálu ili kuti?/* 'where is the cloth?'  
 cloth it-is where/

B: (gesturing vaguely) *sáyu íyo/* 'that cloth'  
 cloth that/

R: *gwílila iwéyó/kulíbe nsalu/* 'hold on to the doll yourself/there  
 hold-on yourself/at-is-not cloth isn't any cloth'

→ B: *kuíbe sayu/* 'there isn't any cloth'  
 at-is-not cloth/

A few weeks later, A and C also combined the negative dynamic copula with another morpheme.

At 1.10,1, C produced one extraordinary utterance, using gesture (shaking his head) combined with affirmative morphology to signal nonexistence. This was the only case of gesture used in conjunction with an affirmative form found in all the data for any of the children:

(52) C 1.10,1 (C looking for toy truck. S reading, B playing with Legos)

C: *óóyi kutí?/*  
 truck (lorry) where/

M: *íli kuti íóri?/* 'where's the truck?'  
 it-is where truck/

S: *kaya/* (sighs)  
 I don't know/

M: *ilípǝ?/* (C looking under chair) 'is it there?'  
 it-is-there/



→ C: (shaking his head) *ípǒ/* 'it isn't there'  
is-on/

B: *palíbe/* 'it isn't there'  
on-is-without/

From the age of 1.7,3 to 1.10,2, only nine out of 24 of C's utterances were completely spontaneous, i.e. excluding self-repetitions, but from 1.10,12 onwards, all were spontaneous (although some were spontaneous imitations of a preceding utterance by an adult or older sibling) and, furthermore, consistently produced with the correct tone pattern, for example:

(53) a. *iwíbe* (meaning *kulíbe* 'there isn't')

b. *paíbe boto* (meaning *palíbe moto* 'it (his drink) isn't hot')

c. *rombo uwíbe* (meaning *chirombo kulíbe* 'there is no insect')

This pattern might suggest that we consider nonexistence to have been acquired by the age of 1.10, but as is clear from (53), the locative prefix for the negative dynamic copula was not produced correctly until 2.0,5 by A. Even at 2.6,9, when C managed to produce an error-free utterance negating the dynamic copula to signal nonpossession, he was not producing the locative prefix correctly to signal nonexistence. Furthermore, this utterance was an imitation, even though spontaneous:

(54) C 2.6,9 (continuation of exchange in (20). M and C discussing baby being too small to have teeth)

M: *mwana ndi wang'ónó kwámbíri/alíbe mano/*  
baby is small very/he-is-without teeth  
'the baby is very small/he doesn't have any teeth'

→ C: *mwana alíbe manó/* 'the baby doesn't have teeth'  
baby he-is-without teeth

M: *eee/* (i.e. 'no')  
yes/

As can be seen from the above examples, the same basic form (*ku/mu/-palíbe* 'there isn't') was used by all three children, and in fact all their utterances except one (C's combination of gesture with affirmative dynamic copula in (52)) used

this form to express nonexistence and nonpossession. The one case of possible overgeneralization of the negative dynamic copula to signal nonoccurrence ((19) above) occurred before the age of 1.10, so it is possible to state with some confidence that the tone pattern for nonexistence had been acquired by the end of the study and that the morphology was about to be acquired.

The above pattern of development of the expression of nonexistence in Chichewa is quite different from that observed in L1 and L2 acquisition. In the case of L1 acquisition, all one-word or prefabricated patterns were excluded from analysis, so those of the type /*bíbe*/, found from the age of 1.7,3 to 1.9,18 in the present study were not considered. (There were, however, very few examples of this utterance type, although at the same age.) But there was no evidence at all of mastery of the negative dynamic copula after the prefabricated pattern disappeared, nor was this prefabricated pattern subsequently combined with other words, as was found in the present study after age 1.9,18. Furthermore, at first nonexistence was instead signalled by verbs with negative meaning but no overt negative marker (which verbs have not been included in the present study) and only after 1.10 was nonexistence signalled with an overt negative marker of the negative indicative.

For L2 acquisition, a different pattern again was found. A prefabricated pattern was used briefly initially, as in L1 acquisition, but with the difference that it was immediately combined with other elements. Then, the child continued to produce the correct (prefabricated) form for nonexistence, but overgeneralized first the negative imperative and then the negative indicative forms of the verb *-tenga* 'get' to signal nonpossession. Finally, he overgeneralized the negative dynamic copula form to signal nonoccurrence, as mentioned above, before fully mastering the dynamic copula form.

#### 4.5. Denial.

In denial events, children are negating the truth of a statement made by someone else.  
[Bloom and Lahey 1978:190]

Chichewa has a negative stative copula *sí* which is the negative counterpart of the affirmative *ndi* to signal denial:

- |         |                    |                 |                   |                     |
|---------|--------------------|-----------------|-------------------|---------------------|
| (55) a. | <i>ndi nyumba</i>  | 'it's a house'  | <i>sí nyumba</i>  | 'it's not a house'  |
|         | is house           |                 | is-not house      |                     |
| b.      | <i>ndi nthochi</i> | 'it's a banana' | <i>sí nthochi</i> | 'it's not a banana' |
|         | is banana          |                 | is-not banana     |                     |
| c.      | <i>ndi munthu</i>  | 'it's a person' | <i>sí munthu</i>  | 'it's not a person' |
|         | is person          |                 | is-not person     |                     |

Thus, the low-toned affirmative stative copula changes to a high-toned negative, which has the same base form as the negative indicative marker *si-*, but unlike the latter remains invariant as a free morpheme.

There are also other forms which may be used to express denial, apart from the negative stative copula. These are the various negative indicative forms discussed under rejection, nonoccurrence, and non-knowing. The relevant tenses the children used to signal denial in the present study are the reduced present progressive, the immediate future, and the perfective.

Of the three children, B did not produce any utterance signalling denial during the recording sessions, A produced 14, of which four were MMU, and C produced 25, of which seven were MMU. A's and C's patterns of expression of denial were superficially rather different, so they are discussed separately.

All A's MMU were produced within three days, during two separate recording sessions, and all were spontaneous. All were of the form *neg + other element*, but only one was correct, an anaphoric utterance:

(56) A 1.9,13 (Friend (F) and Brother (B) arguing about whose radio is on)

B: *yá kwáthu/* 'it's at our house'  
of at-ours/

F: *éh-eh/eh!/sí yá kwánu/* 'it's not at your house'  
eh-eh-eh!/not of at-yours/

→ A: *íyayi, lánnga/* 'no, it's mine (i.e. my radio)'  
no mine/

Not one of the four MMU used the negative stative copula, although the following clearly should have:

(57) A 1.9,13 (B and A playing with building toy)

B: *ichi chápámwamba/* 'this piece belongs on top'  
this of-on-top/

→ A: *iwe/íyayi áko/* (meaning *sí cháko* 'it's not yours')  
you/no yours/

Two used an independent SMU negative marker followed by a verb phrase:

(58) A 1.9,13 (A looking for more peanuts. Bowl empty.)

R: *kulíbe/*

→ A: *nóno uwíbe/*  
no there-aren't/

(meaning *ósati kulíbe* 'don't say there aren't any' = 'it's not true there are none')

R: *kulífétu mtedza/wáthá/*  
there-aren't-emphatic peanuts/they-perf-finish/  
'there aren't any peanuts at all/they're finished'

and

(59) A 1.9,15 (A standing on chair, playing)

B: *Annie, úgwátu/ufúná utsíke?/*  
Annie you-fall-emphatic/you-want you-get down/  
'Annie, you're going to fall/do you want to get down?'

→ A: *nonô úgwa/* (meaning *sindígwá* 'I won't fall down')  
no you-fall/

B: *úgwátu paménepo iwe, Annie/*  
you-fall-emphatic on-there you Annie/  
'you will fall down from there, Annie'

The first of these two examples should have used the negative imperative while the second did not use the negative indicative as required. All except the last used a HLHL tone pattern, which was appropriate for the morphemes used, but not always the correct pattern for denial. The only aspect which was consistently correct was the first tone, H, which is the correct tone for the negative stative copula *sí*. The possible similarity of these utterances with C's overgeneralizations is discussed below.

C was first recorded expressing denial with a SMU at the age of 1.6,19. Apart from two imitations of a MMU at 1.7,3, C produced at 1.9,18 two prefabricated patterns which foreshadowed his later overgeneralization of the negative indicative form specific to rejection to express denial. His tone patterns were more varied than A's, as can be seen below, the only consistency being in his use of the correct tone pattern for the reduced present progressive form, HL.

(60) C 1.9,18 (C playing around with food, spoiling it)

M: *ih!wáona?/wáononga zónse/*  
*ih/you-perf-see/you-perf-spoil everything/*  
 ‘do you see?/you've spoiled everything’

→ C: *nóno/fúnǎ/*  
*no/want/*

(said with negative tone = *síndífuna* ‘I don't want’ meaning  
*síndinaonónge* ‘I haven't spoilt it’)

M: *wáononga zónse/zónse/púkúta manja/*  
*you-perf-spoil everything/everything/wipe hands/*  
 ‘you've spoilt everything/everything/wipe your hands’

C did not produce any spontaneous MMU until 1.10,3, when he produced the only utterance that contained the negative stative copula. His denial was of the specific intonation pattern his sister used to say his name:

(61) C 1.10,3

M: *Tina, could you keep an eye on Napolo, please?!*

S: (coughs) *yes, Napólo!* (kisses C)

→ C: *sí pówo/iísóumu/kúúmamúnyamu/nô*  
*not Napolo/(soundplay)/no/*  
 ‘it's not Napolo’

Note that the tone of *sí* is falling, possibly to accommodate the L of the first syllable of his name that he omitted, instead of H.

Then at 2.3,18 and 2.4,1 C produced two spontaneous MMU using the form for rejection to signal denial as in (60) above:

(62) C 2.3,18 (C wants to push big truck outside on lawn at dusk)

C: *Títófa/*  
*Christopher/*

B: *m̄m?*/

C: *ufúna atsítsa lóri/* (meaning *ndifúná unditsitsíré lóli* 'I  
you-want he-get down truck/ want you to get down the truck for  
me (from the cupboard)')

B: *íyayi, kwádá/* 'no, it's dark already'  
no to-perf-dark/

→ C: *ufuna kwádá/* (said with negative tone = *síndífuna*  
you-want to-perf-dark/ 'I don't want' meaning *sikunáde*  
'it's not dark yet')

and

(63) C 2.4,1 (M reading *Mr Greedy* to C)

C: *téya/téya/*  
chair/chair/

M: *yes, that's right, it's a chair!* (continues reading)  
*"That was a delicious breakfast"!*

→ C: *ufuna mpándo/* (said with negative tone = *síndífuna* 'I don't  
you-want chair/ want' meaning *sí mpando, ndi chair* 'it's not  
*mpando, it's a chair*')

Clearly, denial was far from acquired by the end of the study. Neither the tone pattern nor the appropriate morphology were used correctly together or separately. However, despite the apparent lack of similarity between A's and C's utterances signalling denial, it appears that both A and C could have been using an extraposition strategy, in A's case using the anaphoric negative marker, and in C's case using his prefabricated pattern originally learned to signal rejection. The tone pattern of *íyayi*, the SMU and anaphoric negative marker, is HL. Likewise that for the negative indicative reduced present progressive with the verb *-funa* 'want' to signal rejection (as for other verbs in the same tense) is also HL, as it may be for the negative stative copula + complement, depending on the tone of the complement, the negative stative copula taking a H. Thus, A's utterances (56), (57), and (58) may actually arise from a similar overgeneralization to C's (62) and (63). Chimombo [1981b] suggested that some of the earliest negative utterances of the form *neg + other element* which were not clearly syntactic could in fact be evidence of an early extraposition strategy to

mean *I don't want x*. In view of the overgeneralization patterns of C in nonoccurrence and denial and of A in denial utterances, it seems that Greenfield and Smith [1976] were right in suggesting that rejection is the primary negative category from which all other categories of negation evolve.

The pattern of development of the expression of denial again seems rather different from that of Lb or L2 acquisition. In Lb acquisition, the negative indicative was used first, but correctly, with a variety of verbs other than *-funa* 'want', and in a variety of tenses, from the age of 1.10. There was no overgeneralization of the verb form for rejection. Only one utterance using the negative stative copula, correctly, was recorded, at 2.4. In L2 acquisition, the negative stative copula was first used correctly, but then the child attempted to treat it like the negative indicative marker, which it resembles in the latter's base form, but conjugating it from *si* to *s-a-* ('not-he-' in the indicative) without a main verb. He then went back to using the correct invariant form. He was not recorded using the full negative indicative form to express denial.

**4.7. Cessation and disappearance.** Since only one utterance was recorded in the category of cessation, produced by C at 2.2,30, the pattern of development of the syntactic expression of cessation cannot be discussed. This one utterance evidenced the same pattern of reduction of the negative indicative marker found in the other categories which use the negative indicative form. The lack of utterances expressing cessation is probably due to the fact that only utterances which normally have a syntactic negative marker were analyzed in the present study, not those which are overtly affirmative but with negative meaning (such as *stop*). The same observation holds for disappearance, in which category no utterances were recorded.

## 5. Discussion

The above presentation has shown that, at least for C, the acquisition of Chichewa negation was neither easy nor fast. In fact, it is impossible to state that C had actually acquired competence to express even one of the semantic categories of negation considered above with complete accuracy. All that can be mentioned is the order of frequency of each of the semantic categories in a syntactic (as opposed to anaphoric) MMU and the order of appearance of these same categories, remembering that this is in no way to be taken as indicative of absence of error. For A and B, of course, the data cover too short a period to do even that, but for C the order of frequency of MMU was as follows:

(64)	Rejection:	311
	Nonoccurrence:	43
	Negative Permission:	33

Nonexistence:	29
Negative Command:	15
Denial:	7
Not-knowing:	2

Notice the overwhelming preponderance of utterances expressing rejection: well over twice as many utterances expressed rejection as expressed all the other categories put together. C's order of appearance of syntactic expression of each category was completely different:

(65)	Negative Permission	at 1.9,1
	Nonexistence:	at 1.10,1
	Nonoccurrence:	at 1.10,3
	Denial:	at 1.10,3
	Rejection:	at 1.10,12
	Not-knowing	at 2.0,16

Four of the categories appeared more or less simultaneously: nonexistence, nonoccurrence, denial, and rejection. The latest to appear, not-knowing, was also the least frequently attempted category.

The data have interesting implications for the identification of universals in language acquisition. Of particular importance is the widespread overgeneralization of the negative indicative form for rejection, *síndífuna* 'I don't want' to contexts where the semantic intention was clearly not rejection, but either nonoccurrence or denial. Chimombo [1981b] hypothesized that *no*, which as a single word was most frequently used to signal rejection in the L1 acquisition of English negation, was overgeneralized "to situations where, pragmatically, [the child] had to specify the object or event being rejected. These latter situations, however, require a full syntactic form in which the negative is in the higher clause" [Chimombo 1981b:199]. Thus utterances of the form *no* + *other element*, e.g. *no guitar* [Chimombo 1981b:199], actually meant *I don't want you to x*, in the example given *I don't want you to play the guitar*. Greenfield and Smith [1976:176] also point to a similar interpretation of the utterance *no cracker*, which could mean *I don't want to eat a cracker* apart from other possible meanings.

Previous studies of both L1 and L2 acquisition of negation have suggested that *no* is a sentence-external element. For example, Klima and Bellugi [1966] give examples of non-anaphoric negatives of the form *no* + *nucleus*, while Wode [1977] claims that the first stage is sentence-external anaphoric negation. Park [1979], however, questions the validity of Wode's stages on the basis of his own research into the acquisition of negation in German. Furthermore, in the present



study, although anaphoric negation first appeared in C's speech at 1.7,29, it was never a major form of negation, with less than ten utterances of all three children being anaphoric negatives. It now seems possible to suggest that Klima and Bellugi's and Wode's data be reexamined to find out whether the children were in fact attempting an elementary kind of negative transportation from the lower to the higher clause.

In the present study, a lot of evidence has been found for the treatment of the prefabricated pattern *síndífuna* 'I don't want' in its various forms as a single unit, possibly comparable to the use of *no + other element* found by Chimombo [1981b] in the L1 acquisition of English negation. This interpretation is reinforced by two facts. First, the tone patterns for the single word *íyayi* 'no', the negative indicative form for rejection *síndífuna* 'I don't want' and for nonoccurrence events in the reduced present progressive tense, and the negative stative copula with a low-toned noun are similar, HL. Secondly, the loan word *nóno* was also assigned a HL tone pattern and was used by A in denial utterances to produce equivalents of *no + other element*. These facts suggest that children learning Chichewa may frequently (not always, as the study of Lb acquisition of Chichewa negation [Chimombo 1981a] has shown) overgeneralize the single-word negative marker or the negative indicative form for rejection to contexts where these forms are inappropriate in the adult system, possibly on the basis of tone.

With respect to tone, the children appeared to have acquired the tone patterns of four subcategories of negation: rejection, not-knowing, negative permission, and nonexistence. However, in the case of not-knowing this conclusion is very tentative, given the fact that only two MMU were recorded in this category.

The tone patterns for the full adult system for each subcategory of negation are compared with the children's varied tone patterns in Table I (following page). The actual tone patterns used by the children are aligned with the target patterns. As can be seen, the children showed quite wide variation in the tone patterns they used, although C was far more variable than A and B. There is agreement in tone patterns only on rows a1, b2, d4, g11, k14, l15, m16, n20, o24, and q29. Twenty-five of the actual tone patterns the children used began with a H tone, and only seven began with a L. The target tone patterns begin with a H 12 times and with a L seven times. Thus, it appears that the H tone is twice as salient for children, possibly because it is easier to perceive. Clearly, however, despite the children's use of tone in preference to morphology to signal the contrast between affirmative and negative utterances in Chichewa until they had mastered the full adult forms, the acquisition of syntactic tone rules is not as simple as might be thought on the basis of previous studies of lexical tone.

With respect to the implications for phonological theory, recent studies on Bantu tonology (cf. in particular Mtenje [1986, 1987]) have argued that a more revealing analysis of tone in Bantu verbs is that which posits tone melodies in a

**TABLE I:** Target vs. Actual Tone Patterns in the Acquisition of Chichewa Negation

Semantic subcategory of negation	Target tone pattern	Actual tone pattern
Rejection	a. HLHL (5)	1. HLHL (11)
	b. HL (6)	2. HL (7), (10), (11) 3. HLH (8), (9)
Nonoccurrence	c. HL (12)	4. LHL (16), (23)
	d. LHL (13)	5. HLHL (24)
	e. HLHL (14)	6. HL (17) 7. HLH (19)
	f. LHL (15)	8. HL (18) 9. HLHL (20), (22) 10. HLH (21)
Not-knowing	g. HL (25a)	11. HL (28)
	h. HLHL (25b)	
	i. HLH (26a)	
	j. HLHL (26b)	12. HLH (29)
Negative Command	k. HLHL (30a-c)	13. HL (32b-c), (33a), (34), (36)
	l. LHL (30d)	14. HLHL (35a-b) 15. HLH (31), (32a), (33b)
Negative Permission	m. LHL (37a-b)	16. LHL (38a), (41), (44)
		17. HL (38b), (39a), (41), (42), (43b)
		18. HLH (39b), (42b), (43c)
		19. LH (39c)
	n. LH (37c)	20. LH (40a) 21. H (40b) 22. HL (43a)
Nonexistence	o. LHL (45), (47)	23. HL (48), (49b)
		24. LHL (49a,d), (50), (51), (53), (54)
		25. LH (49c)
		26. HLH (52)

Denial	p.	H+noun (55)	27.	HL+(pro)noun (56), (57), (61)
			28.	HL (verb)+HL (noun) (63)
	q.	HLHL (30a-c)	29.	HLHL (58)
	r.	LH (13c)	30.	LHLHL (59)
	s.	LHL (15)	31.	HLH (60)
		32.	HLHLH (62)	

(Numbers in brackets refer to examples in text.)

lexical subcomponent of their own. Morpho-syntactic elements such as negative markers, tense markers, etc., are then specified as selecting any of those tone melodies. Once the tone melodies have been so selected, the entire tone pattern is superimposed on the relevant morpho-syntactic domain, from where it is mapped onto the tone-bearing elements through a combination of language specific rules and independently motivated general association conventions of autosegmental theory.

Now the present study of the acquisition of syntactic tone offers additional support for the postulation of tone patterns and the assignment of such patterns to entire morpho-syntactic domains. We have noticed that children acquiring tone in negation in Chichewa acquire entire tonal patterns associated with certain linguistic domains, regardless of the number of syllables that individually form that word or domain. This shows that the children are giving more recognition to the tone pattern characterizing that domain than to the individual syllables involved. This fact is confirmed by such errors as misapplication of the rule of Tone Doubling. Thus, since the children show evidence of acquiring entire tone patterns, the existence of such patterns, postulated on independent grounds in Mtenje [1986, 1987], cannot be denied. The independence of tones from the morpho-syntactic and phonological units which actually bear them also supports the long-standing discovery of autosegmental phonology, which regards tone as being separate from its bearing units.

The data further reinforce the observation that it is essential to consider both function and form together before the child can be credited with having acquired a language, but in the case of a language which has syntactic (and, therefore, semantic) tone, the child has the additional task of matching function, form, *and* tone before s/he can be said to have acquired the language. In this study we are, therefore, forced to conclude that not one subcategory of negation was completely acquired. Even for those subcategories where the tone pattern was apparently mastered, there was not sufficient evidence to conclude that the early pattern of reduction of both tone patterns and morphology had been entirely abandoned. It is also possible that the patterns of overgeneralization from one semantic subcategory to another continued after the end of the study.

Finally, the data also reinforce the necessity to consider the acquisition of negation (as of other subsystems of the language) from the earliest stages, otherwise the continuity and discontinuity of development from the single word through to syntactic expression of semantic function is not observed, nor is it always possible without the data on the single-word utterance to identify patterns of overgeneralization [Greenfield and Smith 1976].

The present study has merely added to the gradually accumulating data on the acquisition of non-European languages and, being essentially a case study of one child, cannot do more than suggest possible trends in the acquisition of Chichewa. Nonetheless, partial answers to at least some of the questions Li and Thompson [1978:272] asked have been given, particularly the questions on chronology of acquisition ("What is the relationship between the time when the child has mastered the tone system and the time when [the child] has mastered the segmental system of [the child's] language?"), deviations from the adult norm ("What range of substitutions do children make for tones which they have not yet mastered or acquired which occur in the adult language?"), and tone rules ("At what stage of the acquisitional process are tone rules acquired?"). As the study continues, with data not yet analyzed and more data collected from additional children, hopefully a clearer picture will emerge of the patterns of interaction of tone, syntax, and semantics in the acquisition of Chichewa negation.

## REFERENCES

- Bloom, L. 1970. *Language Development: Form and Function in Emerging Grammars*. Cambridge, MA: MIT Press.
- Bloom, L. and M. Lahey. 1978. *Language Development and Language Disorders*. New York: John Wiley & Sons.
- Chimombo, M. 1981a. "A bilingual child's acquisition of negation: a semantic-syntactic analysis." Paper presented at the 15th annual TESOL Convention, Detroit, Michigan.
- Chimombo, M. 1981b. "Overgeneralization in negation: a comparison of first and second language acquisition." Ed.D. dissertation, Columbia University, Teachers College, New York.
- Chimombo, M. 1987. "Early stages in the acquisition of Chichewa negation." Paper presented at the 4th International Congress for the Study of Child Language, Lund, Sweden.

- Demuth, K. 1988. "The acquisition of Sesotho tone." Paper presented at the 2nd Niger-Congo Syntax and Semantics Workshop, Seminar on Sesotho Tone, Boston.
- Greenfield, P.M. and J.H. Smith. 1976. *The Structure of Communication in Early Language Development*. New York: Academic Press.
- Harding, D.A. 1966. "The phonology and morphology of Chinyanja." Ph.D. dissertation, University of California, Los Angeles.
- Jespersen, O. 1917. *Negation in English and Other Languages*. Kobenhavn, Denmark: Ejnar Munksgaard [Reprinted 1966].
- Klima, E.S. and U. Bellugi. 1966. "Syntactic regularities in the speech of children." In J. Lyons and R.J. Wales (eds.), *Psycholinguistics*, pp. 183-208. Edinburgh: Edinburgh University Press.
- Konopczynski, G. 1979. "Le statut de la prosodie dans les recherches sur l'acquisition du langage: réflexions sur les corpus." In Pierre Léon and Mario Rossi (eds.), *Problèmes de prosodie, Volume I: approches théoriques*, pp. 49-59. Ottawa: Marcel Didier (Canada) Ltée.
- Li, C.N. and Thompson, S.A. 1978. "The acquisition of tone." In V.A. Fromkin (ed.), *Tone: a Linguistic Survey*, pp. 271-284. New York: Academic Press.
- Mchombo, S. 1978. "A critical appraisal of the place of derivational morphology within transformational grammar, considered with primary reference to Chichewa and Swahili." Ph.D. dissertation, University of London.
- Moto, F. 1988. "The acquisition of Chichewa tone." Paper presented at the 19th Conference on African Linguistics, Boston.
- Mtenje, A. 1986. "Issues in the nonlinear phonology of Chichewa." Ph.D. dissertation, University College, London.
- Mtenje, A. 1987. "Tone shift principles in the Chichewa verb: a case for a tone lexicon." *Lingua* 72:169-209.
- Park, T-Z. 1979. "Some facts on negation: Wode's four-stage developmental theory of negation revisited." *Journal of Child Language* 6:147-151.

Suzman, S. 1985. "Learning the passive in Zulu." Paper presented at the 17th Annual Stanford Child Language Research Forum, Stanford.

Tsonope, J. 1988. "Children's acquisition of Bantu noun class prefixes." Paper presented at the 19th Conference on African Linguistics, Boston.

Wode, H. 1977. "Four early stages in the development of L1 negation." *Journal of Child Language* 4:87-102.

**PHONOLOGICAL PROCESSES IN THE  
NOUN CLASS SYSTEM OF LAMA\***

Meterwa A. Ourso  
University of Illinois & Université du Bénin

The purpose of this paper is to account for the phonological processes taking place within noun classes and across noun classes in Lama, particularly when some class suffixes are attached to noun stems. This study is therefore an overview of the noun class phonology. After an introduction to the phonology and to the noun class system, we will examine specific phonological problems. It will be shown that when some root final sounds are in contact with some suffixes, they undergo structural changes, namely, assimilation, vowel truncation, and root controlled vowel harmony.

**I. Introduction**

In this paper, we attempt to provide a phonological analysis of the processes involved in the affixation within noun classes and across noun classes in Lama. The analysis distinguishes between phonological rules and morphological rules. The discussion will only include morphological rules or facts when they prove necessary for the understanding of the phonological problems under focus.

To account for the various phonological problems presented by the data, the paper adopts the general framework of generative phonology; we do not, however, restrict ourselves to one specific theory of this framework; we combine the linear approach with the autosegmental one to account for various data. For instance, vowel harmony, as discussed here, is handled in a more elegant way

---

\* This paper has undergone several stages and through each stage it has benefited from the comments, suggestions, and criticisms of many friends; we are indebted to those people; we are thankful to M. Kenstowicz, C. Kisseberth, and C. Ulrich for their illuminating comments. We are particularly indebted to R.G. Schuh and to an anonymous reviewer of *Studies in African Linguistics*. Of course, all the shortcomings of this paper are the writer's responsibility.

within the autosegmental framework as addressed in Clements [1981], Pulleyblank [1986], *inter alia*.

After a short presentation of the main features in Lama phonology, we introduce and discuss the noun class system. We then concentrate mainly on the analysis of the phonological processes within that noun class system. The analysis attempts to establish the following:

1. Some noun class suffixations trigger phonological processes such as consonant assimilation and dissimilation, vowel truncation, and root controlled ATR vowel harmony.

2. The underlying structure of certain noun stems can best be understood through a comparison between classes, i.e. the structure of a noun in the singular (in Class 1, for instance) is best understood through its structure in the corresponding plural class (Class 2).

3. Although some phonological rules operate across the whole language, certain rules (vowel truncation, for instance) are mostly restricted to noun classes.

The following transcription conventions will be adopted for the present study:

(1) Transcription Conventions

//	=	phoneme
[ ]	=	allophone
ə	=	[+ATR] schwa
ɜ	=	[-ATR] schwa
# #	=	underlying representation of a word
\$	=	syllable boundary
-	=	morpheme boundary
~	=	nasalization in vowels
[d]	=	retroflex stop
ˊ	=	high tone
ˋ	=	rising tone
ˆ	=	falling tone
!	=	a downstepped high tone or the imperative forms of verbs
		- Level low tones are not marked.



- The tone is only marked on the first part of a diphthong or a triphthong.
- Upper case letters mark an underspecified segment.

## 2. Lama Phonology and Noun-Class Morphology

Lama is a West African language of the Gur family, spoken by some 60,000 people in the northern part of Togo. Lama belongs to the Eastern Grusi language group, together with Kabiye, Lukpa, Delo, Cāla, Tem, and Bago [DeCraene 1986].

**2.1. Main features in Lama phonology.** To understand the discussion that we present in section 3 of this paper, an introduction to the main phonological features of Lama proves relevant at this point. This introduction centers mainly on the consonantal system, the vowel system, the tonology, and the syllable structure.

*The consonants.* Lama presents 13 consonants and 2 glides in the underlying representation: the stops /p, kp, t, c, k/; the fricatives /f, s, h/; the sonorants /l, r, m, n, ñ, w, y/.

Note that [-voiced] and [+voiced] are not contrastive in the stops and fricatives of the Lama consonantal system. However, intervocalically, and after nasals the stops /p/, /kp/, and /k/ can be voiced or voiceless depending on the speaker. In other words, the feature [+voiced] is a secondary feature in free variation with the primary feature [-voiced].

Two additional consonants are found at the surface level. These are the velar nasal [ŋ] and the retroflex stop [ɖ]. As will be shown in section 3, these consonants are phonetically derived from other specific underlying segments through phonological processes.

To sum up then, Lama starts from an underlying 15 consonantal system and ends up with 17 consonants at the surface level.

*The vowels.* The language presents 11 vowels in the underlying representation. In this study, we will use the features [+ATR] and [-ATR] to present the vowel system in Lama and the type of harmony that system governs (section 3.2.2). In (2) we present this ATR vowel system.

(2)	[+ATR]			[-ATR]		
	<i>i</i>	<i>ə</i>	<i>u</i>	<i>i</i>	<i>ɜ</i>	<i>ʉ</i>
	<i>e</i>		<i>o</i>	<i>ɛ</i>		<i>ɔ</i>
					<i>a</i>	

Note that, in the underlying representation, the low vowel /a/ does not show an ATR contrast as the other vowels do in (2). At the surface level, however, that vowel shows a contrasting [+ATR] ([a]) counterpart which fills the gap we note in the underlying representation of the vowel system as illustrated in (2). [+ATR] vowel harmony, as motivated in this study (cf. section 3), therefore, leads from an 11 underlying vowel system to a 12 vowel system at the surface level. We now turn to the tonal system.

*The tonal system.* Lama has two basic tones, a high tone and a low tone. These tones combine to give two contour tones, a falling tone and a rising tone. The latter is never realized phonetically. It always surfaces as a low tone. But when a low tone monosyllabic word follows a word with a final rising tone, the high part of that contour tone is then felt on that monosyllabic low tone word. This is explained by the general phenomenon of the high tone spread one syllable to the right found in most Gur languages [Kenstowicz et al. 1988]. The falling tone is only realized phonetically on the final syllable of a word (said in isolation). In phrase medial position, the falling tone simplifies to a level high tone; the delinked low part can cause a following high tone to be downstepped in specific environments [Kenstowicz et al. 1988].

Lama starts then with two basic tones which in turn combine to give two additional tones. The overall tone configurations are High, Low, High-Low, and Low-High in the underlying representation. At the surface level only the first three configurations are allowed. The syllable, to which we now turn, is the tone bearing unit.

*The syllable.* Four possible combinations of vowels and consonants into monosyllabic words form the basic syllable structure in Lama. Such combinations are shown and illustrated in (3).

(3) Syllable structure in monosyllabic words

V	<i>i</i>	's/he, it'
VC	<i>âr</i>	'which'
CV	<i>tá</i>	'in'
CVC	<i>kaɪ</i>	'read'

While any consonant can occur in the onset position, only sonorants (except for palatal sonorants /*ɲ*/ and /*y*/) are allowed in the coda position, where consonant clusters are forbidden. Derived prenasalized stops [*mp*] and sonorants [*ɲɲ*], [*ɲy*], [*nn*] are found in the onset position. In cases where the nasal consonant fails to merge with the following consonant into a complex segment, that nasal consonant becomes syllabic. For instance, when *sɜ* ‘they = children’ and *ka* ‘s/he = child’ are prenasalized, the nasals in *nsɜ* ‘these/those ones = children’, and *ɲka* ‘this/that one = child’ are syllabic and bear a tone of their own. These words are therefore disyllabic words in contrast to *mpa* ‘these/those ones = men’ and *ndɜ* ‘this/that one = axe’, which are monosyllabic words.

In this section of the paper, we have presented four main points in Lama phonology: we have shown that the language has 15 consonants in the underlying representation; for stops and fricatives, [-voiced] is the main specified feature which does not contrast with the feature [+voiced] found in some environments at the surface level. Two additional consonants [*ŋ*] and [*d*] are phonetically derived as will be argued for in the next section.

Eleven vowels are found in the underlying representation contrasting in [ATR] values except for the low vowel /*a*/. That vowel, like all the other [-ATR] vowels, harmonizes in the environments of [+ATR] vowels. ATR vowel harmony is considered in detail in the last section of this paper.

Lama has a two tone register, a high tone and a low tone. These tones combine into contour tones (a falling tone and a rising tone). The rising tone never surfaces whereas the falling tone only surfaces at phrase final position. Contour simplification is followed by tone spread one syllable to the right and downdrift. The syllable is the tone bearing unit.

There are four possible syllable structures (cf. (3)). Only sonorants (palatals excluded) can occur in the coda position where consonant clusters (including complex segments) are forbidden.

After this general introduction to the phonology of the language, let us consider the main features of the noun class morphology.

**2.2. Noun class morphology.** All of the languages in the Gur family share the common characteristic of a noun class system, as exemplified by Lama in the present study. The first comprehensive description of Lama was published in Prost [1964], who provides a six noun class system for the language. His study does not consider the singular and the plural of the same noun as belonging to two different classes. For instance, the elements in (4) from Prost’s [1964:10] analysis belong to the same class, i.e. Class 1.

(4)	Singular		Plural
	<i>yír</i>	'person'	<i>yíra</i>
	<i>apal</i>	'man'	<i>apala</i>
	<i>yal</i>	'woman'	<i>yala</i>
	<i>dj</i>	'mother'	<i>djina</i>

What Prost basically does is to pair up the singular form and the plural form of the same lexical item in one noun class even though they do not govern the same morphology or the same agreement.

The second approach to the noun class system of the language has been proposed by Ourso and Yu [1987]. In their study, they refined Prost's classification by considering singular and plural as additional criteria for the recognition of classes. For them, all the elements in Class 1 will share the same singular properties but not necessarily the same plural characteristics. This implies that while some nouns in Class 1 have their plurals in Class 2, others have theirs in Class 4. This is exemplified in (5a, b, c) and (6a, b).

(5)		<b>Representative Pronoun</b>	<b>Demonstrative Pronoun</b>	
	a. Class 1			
	<i>yír</i>	<i>i</i>	<i>ññɜ</i>	'person'
	<i>yàl</i>	<i>i</i>	<i>ññɜ</i>	'woman'
	<i>nâa</i>	<i>i</i>	<i>ññɜ</i>	'cow'
	<i>ñâr</i>	<i>i</i>	<i>ññɜ</i>	'buffalo'
	b. Class 2			
	<i>yír-â</i>	<i>wa</i>	<i>mpa</i>	'persons'
	<i>yal-â</i>	<i>wa</i>	<i>mpa</i>	'women'
	c. Class 4			
	<i>nâa-n</i>	<i>ñɜ</i>	<i>ññɜ</i>	'cows'
	<i>ñârɛ-n</i>	<i>ñɜ</i>	<i>ññɜ</i>	'buffalos'
(6)	a. Class 3			
	<i>káas-ɛ</i>	<i>kɛ</i>	<i>ŋkɛ</i>	'crocodile'
	<i>nɔwù</i>	<i>kɛ</i>	<i>ŋkɛ</i>	'bull'
	<i>tén-ɛ</i>	<i>kɛ</i>	<i>ŋkɛ</i>	'skin'
	<i>máa-ɛ</i>	<i>kɛ</i>	<i>ŋkɛ</i>	'rice'

## b. Class 4

<i>kássâ-n</i>	<i>ñɜ</i>	<i>ññɜ</i>	'crocodiles'
<i>nɔwü-n</i>	<i>ñɜ</i>	<i>ññɜ</i>	'bulls'
<i>ténɜ-n</i>	<i>ñɜ</i>	<i>ññɜ</i>	'skins'
<i>mâa-n</i>	<i>ñɜ</i>	<i>ññɜ</i>	'rice'

The synthesis of this classification is shown in the tables in (7) and (8), adapted from Ourso and Yu [1987]:

(7) Table 1. Noun class system of Lama

Class	Number	Corr. Class	Cl. Suff.	Pronoun	Demonst	Refer.
1	Sing.	2, 4	∅	<i>i</i>	<i>ññɜ</i>	Human
2	Plur.	1, 3	<i>-wa, -a</i> <i>-na</i>	<i>wa</i>	<i>mpa</i>	
3	Sing.	2, 4, 9	<i>-ɸ</i>	<i>kɸ</i>	<i>ŋkɸ</i>	Animate
4	Plur.	1, 3	<i>-n</i>	<i>ñɜ</i>	<i>ññɜ</i>	
5	Sing.	6	<i>-ka, -ɔ</i> <i>-pe</i>	<i>ka</i>	<i>ŋka</i>	Small
6	Plur.	5	<i>-sɜ</i>	<i>sɜ</i>	<i>nsɜ</i>	
7	Sing.	8	<i>-rɜ. -ɖɜ</i>	<i>rɜ</i>	<i>nɖɜ</i>	Small
8	Plur.	7	<i>-ya, -a</i> <i>-i</i>	<i>ya</i>	<i>ñya</i>	
9		3	<i>-tɜ</i>	<i>tɜ</i>	<i>ntɜ</i>	Collect
10			<i>-m</i>	<i>pɜ</i>	<i>mpɜ</i>	Liquid

Table 1 is interpreted as follows: in *Column 3* (from left), 2, 4 means that all the elements in Class 1 have their plurals either in Class 2 or in Class 4, etc.; *Column 4* shows the various class markers which can be suffixed to the noun in the appropriate noun class; *Column 5* shows independent pronouns which can be subjects (or objects) of verbs; *Column 6* shows the demonstrative pronouns. These elements can also be adjoined to the nominal as demonstrative articles (*yalâ*

*mpa* 'these/those women', *mpa* 'these/those ones'). When the demonstrative of the noun class 1 acts as an article it loses its prenasalizing element (*ññz* 'this one' versus *yàl ñz* 'this/that woman'). Column 7 (Ref. = Referent) gives a tentative semantic interpretation of the various noun classes.

Table 2 illustrates the noun class suffixes:

(8) Table 2. Noun class suffixes in context

Class	Singular	Plural	Gloss
1/2	<i>yàl-∅</i> <i>ci-∅</i> <i>yadəm-∅</i>	<i>ya1-â</i> <i>ci-ná</i> <i>yadəm-pa</i>	'woman' 'father' 'cowife'
1/4	<i>tí-∅</i> <i>tâa-∅</i>	<i>tîi-n</i> <i>tâa-n</i>	'elephant' 'antelope'
3/2	<i>tí-u</i> <i>wɔml-û</i>	<i>tí-wâ</i> <i>wɔml-â</i>	'fortune-teller' 'leper'
3/4	<i>tén-ú</i> <i>káas-ɸ</i>	<i>ténâ-n</i> <i>káasâ-n</i>	'skin' 'crocodile'
3/9	<i>háar-ú</i> <i>hér-ú</i>	<i>háa-tâ</i> <i>hé-tâ</i>	'leaf (bunch of)' 'flower (bunch of)'
5/6	<i>ará-kâ</i> <i>am-ô</i>	<i>ará-sâ</i> <i>amá-sâ</i>	'trunk' 'lizard'
7/8	<i>sûu-r</i> <i>sén-dê</i> <i>yén-dê</i>	<i>sú-yá</i> <i>sén-á</i> <i>yem-í</i>	'back' 'bean' 'hippopotamus'
9		<i>ran-tâ</i> <i>nafá-tâ</i> <i>seu-tâ</i>	'friendship' 'fear' 'wealth'
10		<i>lê-m</i> <i>cálâ-m</i> <i>afəlê-m</i>	'water' 'blood' 'wind'

Although Ourso and Yu's classification presents more details with more clarity than that of Prost [1964], it also shows certain inadequacies in the semantic interpretation of the noun classes. For instance, the interpretation of the noun classes 1/2 as "human" can be misleading since the lexical elements in those classes can refer to animals and even things (*wól/wólâ* 'mouse/mice', *píikəm/píikəm'ná*

'flute/flutes'). The same heterogeneity also holds for the other noun classes. This implies that semantic interpretation as a criterion of classification is not satisfactory, and it therefore needs further investigation.

From these tables, the following generalizations can be made about the noun class system of Lama: (1) noun class 1 does not have a lexical suffix; (2) apart from noun class 1 there is a structural relation between the noun class pronouns and the corresponding demonstratives; (3) some noun classes have the class pronoun as their suffix.

After this introduction to the noun-class system of Lama, let us consider the phonological processes involved in affixation.

### 3. Phonological Processes

As already mentioned at the beginning of this paper, our discussion will center on three phonological points, namely, assimilation and related processes, vowel truncation, and vowel harmony.

**3.1. Assimilation processes.** Within the same noun class and across the different noun classes two assimilatory processes take place: nasal assimilation and sonorant hardening.

**3.1.1. Nasal assimilation.** Prenasalization of the demonstrative pronouns is a common characteristic of all the noun classes. Consider, for instance, the following data:

(9) **Table 3.** Interaction between noun class elements

Cl.	Numb.	Noun	Noun + Demons.	Pronoun	Demons.
1	Sing.	<i>yàl</i> 'woman'	<i>yàl ñɜ</i>	<i>i</i>	<i>ññɜ</i>
2	Plur.	<i>yalâ</i>	<i>yalâ mpa</i>	<i>wa</i>	<i>mpa</i>
3	Sing.	<i>káasú</i> 'crocodile'	<i>káasú ŋkɸ</i>	<i>kɸ</i>	<i>ŋkɸ</i>
4	Plur.	<i>káasân</i>	<i>káasân ññɜ</i>	<i>ñɜ</i>	<i>ññɜ</i>
5	Sing.	<i>yó</i> 'child'	<i>yó ŋka</i>	<i>ka</i>	<i>ŋka</i>
6	Plur.	<i>wísâ</i>	<i>wísâ nsɜ</i>	<i>sɜ</i>	<i>nsɜ</i>

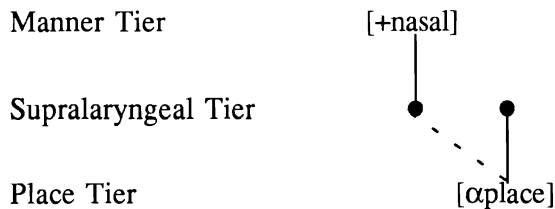
7	Sing.	<i>súur</i> 'back'	<i>súur nɔ́ʒ</i>	<i>rɔ́ʒ</i>	<i>nɔ́ʒ</i>
8	Plur.	<i>súyá</i>	<i>súyá ñyá</i>	<i>ya</i>	<i>ñya</i>
9		<i>wurtá</i> 'leadership'	<i>wurtá ntɔ́ʒ</i>	<i>tɔ́ʒ</i>	<i>ntɔ́ʒ</i>
10		<i>lém</i> 'water'	<i>lém mpɔ́ʒ</i>	<i>pɔ́ʒ</i>	<i>mpɔ́ʒ</i>

If we consider the demonstrative pronouns, we observe the following facts: first, a nasal consonant is observed at the beginning of each demonstrative. Second, each observed nasal is homorganic to the following consonant. And third, comparing the demonstrative pronouns with the noun class subject/object pronouns, only the nasal prefix in the demonstratives makes the difference between them.

From these facts, we can therefore deduce that there is an assimilation process. An attractive way to account for this process is to adopt the underspecification framework and posit an archiphoneme, /N/, underlyingly specified for the feature [+nasal] only. In this framework, then, the other features (labial, alveolar, velar, palatal, etc.) will be filled in for the nasal sound in place of articulation at a later stage of the derivation.

Following Clements [1985], we motivate three tiers—a manner tier, a supralaryngeal tier, and a place tier—to account for nasal assimilation in Lama. The features of the homorganic sound on the place tier spread backward on to the nasal node on the supralaryngeal tier. The nasal assimilation rule as described above is given in (10).

(10) **Nasal assimilation**



This rule will therefore derive the appropriate nasal with respect to place of articulation as specified by  $\alpha$ .

Turning back to the data in (9) again, particularly to the columns labelled "Pronoun" and "Demonstrative", note that after the N prefixation the initial con-



sonants of Class 2 pronoun *wa* ‘they/them’ and of Class 7 pronoun *rə* ‘s/he, her, his, it, its’ undergo a structural change. Both sonorants undergo a hardening process to the corresponding obstruent, namely /w/ to [p] and /r/ to [d] by losing their feature [+continuant]. We consider the hardening processes in the next two sub-sections.

**3.1.2. Labial assimilation.** If we posit /p/ in the *mpa* ~ *wa* alternation as the underlying sound, we can formulate a rule which will take /p/ to [w], for instance, at word initial position. There is a historical motivation for this approach. For instance, in his reconstruction of the consonants of the Proto-Eastern Grusi, Manessy [1969] shows that there are three different proto-bilabial stops (\*B1, \*B2, \*B3) common to all of the nineteen languages he studies. The three proto-sounds are differently realized in each language. In relation to \*B1, which is of immediate interest to our discussion, Manessy [1969:28] shows that this sound is synchronically realized in seventeen languages as /b/; in the eighteenth language, Kabiye, it is realized as *p/b*, whereas Lama is the only language in which it is realized as /w/ at initial position. To explain this exception, Manessy argues that Lama must have introduced a diachronic rule to reduce \*B1 to /w/ as observed in its class pronominal system.

Although this evidence supports the rule which would take /p/ to /w/ at word initial position, resulting in the structural change as observed in the pronominal system of noun class 2, such an analysis is restricted in scope with respect to certain synchronic facts. First, recall that there is no *p/b* contrast. Second, both /p/ and /w/ occur in word initial position as well as in word medial position, as shown in (11a,b):

- (11) a. i. *wa* ‘they’  
 ii. *wɑdʒ* ‘a walk’  
 iii. *wêɛr* ‘a stone’  
 iv. *pâ* (lɔ) ‘any (where)’  
 v. *pɛlθ* a species of fish  
 vi. *pú* ‘a barn/silo’
- b. i. *awôr* ‘a place/position’  
 ii. *səwĩr* ‘peanut (a grain of)’  
 iii. *apá* ‘mom’  
 iv. *apêɛr* proper name

This implies that both sounds exist underlyingly. Third, the *p* ~ *w* alternations can also be found elsewhere in the language. Consider, for instance, the data in (12 a-d):

- (12) a. *hɔm* 'to pull'  
*rɛm* 'to bite'  
*kám* 'to come'
- b. *mɜ hɔm-pá* 'I pulled'  
*mɜ rɛm-pá* 'I bit'  
*mɜ kam-pá* 'I came'
- c. *ná-u* 'to see'  
*có-u* 'to listen'  
*nɛ-ɯ* 'to carry on the lap'
- d. *mɜ na-wá* 'I saw'  
*mɜ co-wá* 'I listened'  
*mɜ nɯ-wá* 'I carried on my lap'

In (12a) we have one category of verbs whose base forms are  $CV_m$ , whereas in (12c) we have another category of verbs with a CV root. The (-*u*) observed in the latter case is what we might call an infinitive marker. Except in  $CV_m$  and  $CV_p$  categories of verbs, the infinitive marker attaches to all the other roots in the infinitive forms. That is, there are CV-*u* as well as CVC-*u* (*kát-ɛ* 'to meet', *kpác-ɛ* 'to lead' etc.) infinitives.

In (12b) and (12d) the perfective marker attaches to the verb root, where we observe the alternation between *p* and *w*. If we assume that /*p*/ underlies the phonetic [*w*], we can formulate a rule as in (13).

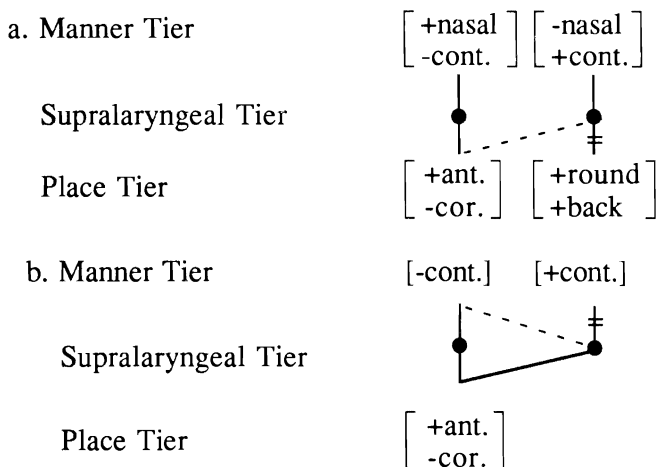
$$(13) \quad p \rightarrow w / \left\{ \begin{array}{c} V \\ \# \end{array} \right\} \text{---}$$

But rule (13), which says that /*p*/ becomes [*w*] after a vowel or at word initial position, does not account for the lexical elements in (11a, iv-vi) and (11b, iii-iv). Under this analysis, such cases as the preceding ones can only be considered as an exception to rule (13). This approach predicts that there is no structural relation between the noun class pronoun and the noun class demonstrative. In other words, the subject/object pronoun is not the input to the demonstrative formation. Furthermore, this analysis excludes the possibility of /*w*/ assimilation to the preceding homorganic sound such as the labial nasal in feature [coronal]. It also predicts that two homorganic sounds such as /*m*/ and /*w*/ cannot merge into a single complex sound like a prenasalized obstruent [*mp*].

The other alternative is to posit /w/ as the underlying segment and derive [p] from it through assimilation processes. We adopt this analysis for the following reason: first, we have established both /p/ and /w/ in the lexicon; second, the environment established for the derivation of [w] from /p/ does not account for all the data; third, /w/ to [p] derivation as an assimilatory process can account for the data in a simpler way.

The labial assimilation rule can therefore be formulated as in (14).

(14) **w Strengthening**

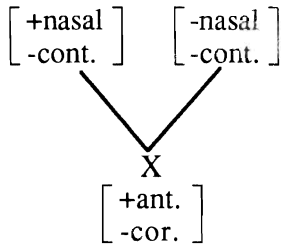


Note that rule (14) is a partial elaboration on rule (10) in terms of feature specification. In (14a), the first step consists in spreading the features of the nasal as specified on the place tier onto the node of the bilabial continuant on the supralaryngeal tier as shown by the broken line. The second step consists in delinking the previous place node as illustrated by the double slash. In this specific case, the features of *w* must be affected on the manner tier as well. The feature [+continuant] must be delinked from that tier as shown by the process in (14b).

We consider this type of assimilation as a total assimilation in that the resulting sound [mp] cannot be dissociated into individual segments on the syllable template. That is, unlike partial assimilation of the nasal where the nasal sound can either form a syllable by itself (*ŋ* \$ *ka* 'this/that one') or be attracted to the preceding vowel (*cεŋ* \$ *kʰ* 'to smell'), in total assimilation, as described here, the nasal and the following stop form a single complex segment which can only be in the onset position in the syllable structure. For instance *mpa* 'these/those ones' is

a monosyllabic word whereas \**m* *ʒ* *pá* as a disyllabic word is ungrammatical as indicated by the star. The features of this complex segment are given in (15).

(15) Features of the complex segment

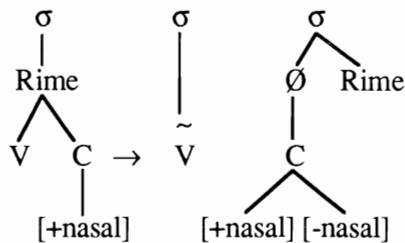


An immediate issue is what happens to the slot of the nasal in the coda position when that nasal becomes part of a complex segment through total assimilation as presented above. Prenasalization affects the quality of the vowel with which the nasal forms the rime in the input syllable. That vowel becomes nasalized as shown in (16).

- (16) a. *hɔm* 'pull'  
*mɔm* 'hit'  
*rɔm* 'bite'
- b. #*hɔm-wa*# → c. *hɔmpá* 'pull-past'  
#*mɔm-wa*# → *mɔmpá* 'hit-past'  
#*rɔm-wa*# → *rɔmpá* 'bite-past'

In (16c), we have the *w*-strengthening process followed by prenasalization. the nasal which was initially in the coda position now becomes part of the onset position. As a result, note that the vowel of the root in (16c) becomes nasalized. If we argue that the template of the input syllable must not be affected in the output in terms of prosodic slots, we can therefore claim that vowel nasalization as observed in (16c) is a compensatory process. The motivation for this process would then be the preservation of the input syllable structure. If our arguments are correct, then, the vowel nasalization rule, fed by the process of complex segment formation, can be formulated as in (17).

## (17) Vowel nasalization



In (18) we illustrate the rules developed so far.

(18) #Nwa#	#na+wa#	#wa#	#hɔm+wa#	
#mwa#	----	----	----	rule 10
m̂pa	----	----	hɔm̂pa	rule 14-15
----	----	----	hɔ̃m̂pa	rule 17
m̂pa	nawá	wa	hɔ̃m̂pá	phon.real.
'these ones'	'saw'	'they'	'pulled'	

**3.1.3. The *r* ~ *ɖ* alternation.** In the data presented in (9), we observed the alternation between the retroflex sonorant *r* and the retroflex stop *ɖ*. This alternation is productive, as is further illustrated in (19a and c).

(19)	Sg., Class 7		pl., Class 8
a.	<i>lá-ɖɛ</i>	'axe'	b. <i>lál-á</i>
	<i>lɛ-ɖɛ</i>	'scab'	<i>lál-á</i>
	<i>mɛ-ɖɛ</i>	'millet'	<i>mál-á</i>
	<i>mɛ-ɖɛ</i>	'story'	<i>mɛr-á</i>
	<i>sén-ɖɛ</i>	'bean'	<i>sén-á</i>
	<i>mán-ɖɛ</i>	'okra'	<i>mán-á</i>
	<i>yén-ɖɛ</i>	'hippopotamus'	<i>yem-ì</i>
c.	<i>míi-r</i>	'nose'	d. <i>mí-yá</i>
	<i>kɔɔ-r</i>	'medicine'	<i>kɔ-yá</i>
	<i>súu-r</i>	'back'	<i>sú-yá</i>
	<i>sɛɛ-r</i>	'field mouse'	<i>sɛ-yá</i>

Before we discuss the data, let me recall some morphological and phonological facts about noun classes 7/8. The class marker in singular (Class 7) is the *-r/-ɖɛ*

observed in (19a and c), whereas the plural markers in the corresponding class 8 are *-yA*, *-A*, *-I* exemplified in (19b and d).

Comparing the first four lexical elements in (19a) with their corresponding plural forms in (19b), we note that the stems in (19b) show the consonants (*l*, *r*) which are absent in (19a). Note also that in the remaining lexical elements in (19a and b) the nasal consonants are consistently present, with an alternation in the nasal sound of the last word.

Taking the roots in (19b) as the underlying representation of those in (19a), we can argue that when the marker of the noun class 7 is suffixed to the root it triggers a phonological process which affects the root final sound in that class. This hypothesis is supported by the data in (19c). If we agree that the roots in (19b and d) are the ones that show the underlying forms of those in (19a and c), we can therefore claim that the long vowels observed in (19c) arise as a result of the same suffixation in noun class 7. Assuming that our hypothesis is correct, two main points call for attention with respect to the data in (19a and c). First, the *r/d* alternation must be explained; second, what happens to the root final sounds after suffixation has to be accounted for.

Assuming that *r* and *d* are both underlying sounds with *d* functioning with the sonorants (*l*, *r*, *m*, *n*) instead of functioning with the stop sounds as we claimed so far, the following predictions fall out from this assumption:

(1) *-rɜ* and *-dɜ* are then both noun class 7 suffixes in complementary distribution: *-dɜ* occurs with final consonant roots while *-rɜ* can only occur with vowel final roots.

(2) The sonorant *d* causes the dissimilation of the root final consonants, nasals excluded. The suffix *-rɜ* loses its schwa after a vowel, triggering a compensatory lengthening in the root final vowel. This would explain the various alternations in the data in (19).

(3) Under this assumption, there is no allophonic relation between the sounds *r* and *d*.

Although this approach seems plausible and accounts for the phonological variation in the sample data presented above, it proves contradictory with the phonological and morphological facts.

Phonetically, *r* and *d* do not contrast in word initial position or in word final position. In the syllable coda position, all the sonorants occur except for *ʃ* and *y*, but *d*, stops, and fricatives do not occur in that position either. If *d* functions with sonorants, it can be argued that it is part of the sonorants excluded in the syllable coda position. However, morphological evidence against this argument will be

presented in due course. Meanwhile, note that where *r* and *q* seem to contrast is in the medial position as illustrated by the data in (20a and b).

- (20) a. *wúró* 'chief'  
*fíró* 'gourd'  
*máarú* 'mark'  
*sartá* 'beauty'  
*sárka* 'prison'
- b. *saqá* 'frog'  
*láqá* 'scab'  
*wóqá* a variety of tree  
*səqə* 'a corpse'  
*máqá* 'millet'

Recalling the arguments that the roots in (19a) are in fact final consonant roots (as evidenced by the corresponding roots in (19b)), where the occurrence of *r* is excluded, it becomes clear that this contrast between *r* and *q* in that position is misleading.

Morphological evidence other than the *r/q* facts in noun class 7 shows that there is an allophonic relation between these two sounds. Consider for instance the data in (21).

- |                          |              |                    |                     |
|--------------------------|--------------|--------------------|---------------------|
| (21) a. <b>Verb root</b> |              | b. <b>Agentive</b> |                     |
| <i>há</i>                | 'give'       | <i>háa-ɾ</i>       | 'someone who gives' |
| <i>saa</i>               | 'cook'       | <i>sáa-ɾ</i>       | 'someone who cooks' |
| <i>hom</i>               | 'look after' | <i>hó-nqə</i>      | 'a wife'            |
| <i>har</i>               | 'cultivate'  | <i>há-qə</i>       | 'a farmer'          |
| <i>səw</i>               | 'die'        | <i>sə-qə</i>       | 'a corpse'          |

All the agentives in (21b) belong to noun class 1 which does not have an overt class suffix. The agentive formation suffixes the *r/q*, observed here, to the verb roots. Note the striking similarities between the structural alternations in the verb roots here and those in the noun roots in noun class 7 in (19). This further evidence shows that the *r/q* alternation in the noun class 7 is not an isolated fact. Moreover, this evidence establishes the fact that *r* and *q* are allophones of the same underlying phoneme.

If we argue that /*r*/ underlies both the phonetic retroflex [*r*] as well as the retroflex [*q*], we can motivate a sonorant hardening process such as the one already argued for in the case of the *w/p* alternation; the facts observed here would then naturally fall out from the approach taken to account for the *w/p* and related

variations. Assuming that our hypothesis is correct, the rule turning the retroflex sonorant /r/ into the retroflex stop [d] can therefore be formulated as in (22).

(22) **r-Hardening**

$$\begin{bmatrix} -\text{ant} \\ +\text{cor.} \\ +\text{voice} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{ant.} \\ -\text{cor.} \\ +\text{voice} \end{bmatrix} / \text{C}\_\_$$

The input to rule (22) will be the underlying representation of (19a) presented in (23a) for convenience. Applying rule (22) will give the initial result in (23b).

(23) a.	#l <sup>1</sup> al-r <sup>3</sup> #	→	b.	lald <sup>3</sup>	'axe'
	#l <sup>1</sup> əl-r <sup>3</sup>	→		ləl <sup>1</sup> d <sup>3</sup>	'root'
	#m <sup>3</sup> əl-r <sup>3</sup> #	→		m <sup>3</sup> əl <sup>1</sup> d <sup>3</sup>	'millet'
	#m <sup>3</sup> ər-r <sup>3</sup> #	→		m <sup>3</sup> ər <sup>1</sup> d <sup>3</sup>	'story'
	#sen-r <sup>3</sup> #	→		send <sup>3</sup>	'bean'
	#man-r <sup>3</sup> #	→		mand <sup>3</sup>	'okra'
	#yem-r <sup>3</sup> #	→		yemd <sup>3</sup>	'hippo'

A cluster simplification rule will delete the root final consonant except for nasals which, as already seen, assimilate to the following consonant and serve as prenasalization to some stops. Before we motivate the cluster simplification rule, we need more evidence. Consider the following data.

(24) a.	<b>sg., Class 5</b>		<b>b. pl., Class 6</b>
	m <sup>3</sup> l-ɔ̄	'millet'	m <sup>3</sup> ɔ̄-s <sup>6</sup>
	ñá <sup>1</sup> -ɔ̄	'plate'	ñá <sup>1</sup> -s <sup>6</sup>
	kpá <sup>1</sup> -ɔ̄	'bracelet'	kpá <sup>1</sup> -s <sup>6</sup>

In (24a) the noun class 5 marker -ɔ̄ is suffixed to the noun roots. The examples in (24b) show the same noun roots with the noun class 6 suffix -s<sup>6</sup>. Here, we observe the absence of the root final consonant from (24a) to (24b). This is the same phenomenon as in (19). This evidence enables us to formulate the cluster simplification rule as in (25).

(25) **Cluster simplification**

$$\begin{array}{c} \text{C} \rightarrow \emptyset / \_\_ \text{C} \\ | \\ [-\text{nasal}] \end{array}$$



The application of this rule to (23b) and to the underlying representation of (24b) will yield the results in (19a) and (24b) respectively. Note, however, that the cluster simplification rule fails to apply to the data in (20a). At this stage of our investigation, we cannot offer an accurate explanation for this exception. One of the possible explanations has been offered in Ourso [1988] within the framework of lexical phonology.

Recall that after *w*-strengthening, the resulting stop and the nasal sound merged into a complex segment triggering nasalization in the preceding vowel. The same process applies here in the same environment after *r*-hardening. Note, for instance, the assimilation of the bilabial nasal (*yem d* → *yẽ \$ ndə* ‘hippo.’) to place of articulation to the retroflex *ɖ* followed by vowel nasalization. This, then, is further evidence that the retroflex *ɖ* does not function with the sonorants but with the stops.

On the evidence that *r* and *w* are both sonorants undergoing hardening and complex segment formation, it is more attractive to collapse rule (14) and rule (22) into a single rule to account for this process of hardening. In (26), we present the collapsed rule.

(26) **Sonorant Hardening**

$$\begin{array}{l} \left[ \begin{array}{l} \text{-lateral} \\ \text{-nasal} \\ \text{-palatal} \\ \text{+son.} \end{array} \right] \rightarrow \text{stop} / \text{C} \_ \\ \left[ \begin{array}{l} \text{[}\alpha\text{place]} \end{array} \right] \left[ \begin{array}{l} \text{[}\alpha\text{place]} \end{array} \right] \end{array}$$

Rule (26) claims that the derived stop is determined by the place of articulation of the consonant that causes the input sonorant to become a stop.

This approach leads us to formalize the prenasalization rule in the target stops as follows:

(27) **Prenasalization**

$$\begin{array}{ccc} \left[ \begin{array}{l} \text{+nasal} \\ \text{-cont.} \end{array} \right] \left[ \begin{array}{l} \text{-nasal} \\ \text{-cont.} \end{array} \right] & & \left[ \begin{array}{l} \text{+nasal} \\ \text{-cont.} \end{array} \right] \left[ \begin{array}{l} \text{-nasal} \\ \text{-cont.} \end{array} \right] \\ \downarrow \quad \downarrow & \rightarrow & \downarrow \\ \text{X} \quad \text{X} & & \text{X} \\ \left[ \begin{array}{l} \text{+ant.} \\ \text{\(\alpha\text{cor.}} \end{array} \right] \left[ \begin{array}{l} \text{+ant.} \\ \text{\(\alpha\text{cor.}} \end{array} \right] & & \left[ \begin{array}{l} \text{+ant.} \\ \text{\(\alpha\text{cor.}} \end{array} \right] \end{array}$$

So far, we have explained the *r/q* alternation which triggers the deletion of the root final consonants except for nasals. The alternation between schwa and zero

observed in (19a) to (19c) and the vowel lengthening in (19c) need to be considered.

If we consider Table 1 in (7), we note that in most cases the class pronoun is also the class suffix. Assuming that the overall structure of the pronouns is CV and that that structure is kept in the pronominal suffix, the following interpretation can explain the facts presented by the data. After the sonorant /r/ becomes a stop, the schwa is kept for the general reason that obstruents do not occur in the coda position in this language. Following this line of argument, we can claim that after suffixation of *-rɛ* to the vowel final roots the sonorant is attracted to the syllable coda position causing a schwa syncope. The motivation for this claim comes from the striking relation between the noun class 4 pronoun *ɛ̃ɛ* 'they/them' and the corresponding class suffix *-n* (cf (5) in section 1)). If the claim that the class pronouns *rɛ* and *ɛ̃ɛ* are also the class suffixes is correct, we can motivate the schwa syncope rule as proposed in (28).

(28) **Schwa syncope**

$$\begin{array}{c} \varepsilon \rightarrow \emptyset / \text{C} \_\_\_ \# \\ | \\ \text{[+sonorant]} \end{array}$$

Rule (28) says to delete the schwa after a sonorant at word final position. This rule must be ordered after the hardening rule to avoid wrong results in the /r/ to [d] derivation.

As already argued for in the case of prenasalization, the vowel lengthening observed in (19c), as well as in similar environments in the noun class 4, can be explained as a compensatory lengthening. The compensatory lengthening is motivated by the integrity of the input slots on the prosodic tier in the syllable template; if the number of the output slots must be the same as that of the input slots, then vowel nasalization and vowel lengthening are considered as the same process of compensation; in this view, then, the vowel lengthening rule, fed by rule (28), can be formulated as in (29), where *J* shows the root final position.

(29) **Vowel lengthening**

$$\begin{array}{c} \text{V} \rightarrow \text{V} / \_\_\_ ] \text{C} \\ | \quad \diagup \quad \diagdown \quad | \\ \text{X} \quad \text{X} \quad \text{X} \quad \text{[+sonorant]} \end{array}$$

Because palatal sonorants do not occur in the syllable coda position, the loss of the schwa in the suffix *-ɛ̃ɛ* triggers a depalatalization rule proposed in (30).

## (30) Depalatalization

$$\left[ \begin{array}{l} +\text{nasal} \\ +\text{palatal} \\ +\text{coronal} \end{array} \right] \rightarrow \left[ \begin{array}{l} +\text{nasal} \\ -\text{palatal} \\ +\text{coronal} \end{array} \right] / \text{V} \_ \#$$

The rules formulated to account for the processes discussed in this section are illustrated in (31).

(31) #yem-rɜ#	#hom-wa#	#sɛ-rɜ#	#sɛ-ya#	#ti-ñɜ#	
yemɟɜ	hompa	----	----	----	Hardening
yemɟɜ	----	----	----	----	Nasal ass.
yemɟɜ	hompa	----	----	----	Prenasal.
yẽmɟɜ	hõmpa	----	----	----	Vowel nasal.
----	----	sɛr	----	tiñ	Schwa sync.
----	----	sɛɛr	----	tiññ	Vowel length.
----	----	----	----	tiin	Depalatal.
yẽmɟɛ	hõmpá	sɛɛr	sɛyá	tiin	Phonetic rep.
'hippo.'	'pulled'	'mouse'	'mice'	'bees'	

So far we have discussed and shown the following points:

(1) In the pronominal system of Lama, the demonstrative pronominals are obtained by prefixing a nasal consonant to the subject/object pronouns of the same noun class. The nasal prefix is not specified for place of articulation in the underlying representation. The features for place are acquired through assimilation to the homorganic consonant.

(2) The sonorants /r, w/ become stops in the appropriate environments. Both [d] and [p] attract the preceding nasal with which they form complex segments. This process triggers nasalization in the preceding vowel. A similar type of compensation is observed when the suffixal sonorant loses its schwa. The root final vowel is lengthened. As a result of schwa syncope, the suffix -ñɜ undergoes depalatalization. The hardening of the retroflex sonorant affects the root final consonant which triggered the hardening process in the first place. That consonant dissimilates in the environment of the derived retroflex stop [d].

An overall picture of these phonological processes in the noun class system is that some affixal initial sounds and those of some roots affect one another when they come into contact. Vowel initial suffixes also affect the root final vowels in

the process of noun class formation. The last section of this paper centers on this problem.

**3.2. Vowel Truncation and Vowel Harmony.** Noun class suffixation offers the most adequate starting point for the study of vowel truncation and vowel harmony in Lama. Let us consider each process.

**3.2.1. Vowel Truncation.** Among the suffixes of the noun class 5 (cf. (6)) *-O* and *-kA* present interesting phonological problems. The suffix *-kA* will be discussed later on in this section. Phonetically *-O* is realized as [o/ɔ]. This is shown in (32).

(32)	<b>Class 5</b>		<b>Class 6</b>
	a. <i>lò</i>	‘partridge’	a'. <i>lesê</i>
	<i>Δso</i>	‘rabbit’	<i>Δsésê</i>
	<i>Δhúló</i>	‘branch’	<i>ΔhúlÁsê</i>
	<i>fíró</i>	‘small gourd’	<i>fírÁsê</i>
	b. <i>acɔ</i>	‘fly’	b'. <i>acesê</i>
	<i>amɔ̂</i>	‘lizard’	<i>amásê</i>
	<i>ñɔ̂</i>	‘hair’	<i>ñísê</i>
	<i>sɔ̂</i>	‘pepper’	<i>sísê</i>

The data in (32a, b) can be considered as consisting of the noun root and the noun class marker. In other words, it can be argued that the root just has a final consonant underlyingly. The *o/ɔ* alternation can be accounted for by vowel harmony as proposed in the next part of this section. Note, however, the structural variation of the lexical elements in the corresponding noun class 6 (the plural of class 5).

If we maintain that the noun roots in (32) have just a final consonant underlyingly, we then assume that the class 6 marker is not simply *-sɛ*, but it is preceded by a vowel. As can be seen from (32a', b'), that vowel cannot be predicted.

This interpretation of the data is misleading in that it misses the generalization in recognizing *-sɛ* as being simple in structure and the only suffix in noun class 6. Further evidence should decide on the issue. Let us first consider the plural of other nouns in Class 5.

(33)	<b>Class 5</b>		<b>Class 6</b>
	a. <i>wɔ̂</i>	‘river’	a'. <i>wɔ̂-sê</i>
	<i>hɔ̂</i>	‘pregnancy’	<i>hɔ̂-sê</i>

b. <i>akɔ</i>	'blow'	b'. <i>akɔ-sɛ̃</i>
<i>tuká</i>	'bucket'	<i>tuká-sɛ̃</i>

In (33a' & b'), there is no change in the shape of the root vowel in noun class 6. Although the data in (33) constitute the only cases in which the shape of the vowel in the singular does not change in the plural, they constitute evidence that those vowels observed in class 6 before the affix *-sɛ̃* are undoubtedly root vowels which undergo phonological changes in the process of suffixation in class 5. Moreover, the pronoun *kA* 's/he, it' of the noun class 5 is found in certain noun stems and drops in the plural form (class 6). Here again, we observe no vowel change in the root in class 6. The data in (34) illustrate this case.

(34) Class 5		Class 6
a. <i>ará-kâ</i>	'wooden trunk'	b. <i>ará-sɛ̃</i>
<i>katé-kâ</i>	'scarf'	<i>katé-sɛ̃</i>
<i>ɔnlɛ-ká</i>	'castanets'	<i>ɔnlɛ-sɛ̃</i>
<i>ɔtɔ-kâ</i>	'plain mouse'	<i>ɔtɔ-sɛ̃</i>
<i>afa-kǎ</i>	'quiver'	<i>afá-sɛ̃</i>
<i>râá-ká</i>	'firewood'	<i>râá-sɛ̃</i>

Having shown that the vowels observed in (32) are, in fact, root vowels, let us now consider how to account for their absence or their change in the data presented above.

Two possible alternatives can account for this phenomenon. First, we can argue that the root vowel and the suffixal vowel coalesce to give either [o] or [ɔ] depending on the features which merge. This would imply that the suffixal vowel is not necessarily a mid-back vowel to start with. This analysis would deny the existence of *-O* as a noun class suffix whereas there is evidence that this suffix is one of the noun class 5 markers. In the agreement system of the noun class 5, it is the suffix *-O* which is found on the adjective modifying the nominal as exemplified in (35).

(35) a. Class 1	
<i>yàl-∅ cásém-∅</i>	'fair-skinned woman'
b. Class 3	
<i>naw-ɥ cásém-ɥ</i>	'red bull'

## c. Class 5

<i>ará-ká cásém-ô</i>	'red trunk'
<i>fír-ó cásém-ô</i>	'red gourd'

In (43c), note that although the noun class suffixes can be different depending on the noun root, the agreement suffix is the same on the adjective modifying those nominals. This evidence establishes -*O* as one of the noun class 5 markers.

The second alternative is to motivate a vowel truncation process which deletes root final vowels in front of the suffixal vowel. This approach is more attractive since it follows from the general behavior of root final sounds and initial suffix sounds already discussed in the preceding section. We therefore adopt this alternative and we propose the vowel truncation rule in (36).

## (36) Vowel Truncation

$$V \rightarrow \emptyset / \_V$$

This rule will apply to give the results in (32a & b). The illustrative process is given in (37) (ignoring vowel harmony rules for clarity).

(37) # <i>1e-sə</i> #	# <i>1e-O</i> #	# <i>acε-O</i> #	# <i>ama-O</i> #	
----	<i>lo</i>	<i>aco</i>	<i>amo</i>	rule (43)
<i>lesê</i>	<i>lò</i>	<i>acɔ</i>	<i>amô</i>	phonetic rep.
'partridges'	'partridge'	'fly'	'lizard'	

The process of affixation triggers ATR vowel harmony which we would like to consider in the final part of this paper.

**3.2.2. Vowel Harmony.** The interaction between the roots and the affixes has been differently approached in the literature of phonology. In relation to vowel harmony with respect to root vowels and affix vowels, Clements [1981] and Pulleyblank [1986], among others, both argue that the vowels of the affixes are unspecified for [ATR]. They are governed by the root and therefore harmonize according to "the principle of root control" [Clements 1981:146]. We are taking here this approach to account for vowel harmony in (the noun class system of) Lama.

Before we discuss the harmony processes, we illustrate the ATR vowel system introduced in the second part of the paper. For convenience the two sets are repeated in (38) and illustrated in (39).

(38) a.	[+ATR] vowels		b.	[-ATR] vowels	
	high	<i>i</i> <i>ə</i> <i>u</i>		high	<i>i</i> <i>ɜ</i> <i>ʊ</i>
	mid	<i>e</i> <i>o</i>		mid	<i>ɛ</i> <i>ɔ</i>
				low	<i>a</i>

(39)	<i>ri</i>	‘mother’	<i>su!</i>	‘plant!’
	<i>ri</i>	‘python’	<i>sʊ!</i>	‘take!’
	<i>sé!</i>	‘run!’	<i>có!</i>	‘listen!’
	<i>sɛ!</i>	‘plant!’	<i>cɔ!</i>	‘sit down!’
	<i>ləl!</i>	‘disappear!’		
	<i>lɜl!</i>	‘give birth!’	<i>wal!</i>	‘go!’

The low vowel /a/ does not have an underlying [+ATR] counterpart. As the data in (39) show, all the vowels contrast minimally in terms of [ATR] in CV words. Such a contrast does not exist in the vowel /a/. However, there is an [+ATR] low vowel [ʌ] found only in the environment of other [+ATR] vowels. This is illustrated in (40).

(40)	[sʌu]	‘a wealthy person’
	[ʌso]	‘a rabbit’
	[ʌsɛlu]	‘a catfish’

The contrast between [+ATR] and [-ATR] low vowel at the surface level is evidence that Lama has a ATR vowel harmony. To account for this type of harmony, we propose the stipulations in (41).

(41) Stipulations for ATR harmony

- i. Affixes are not specified for ATR. They obey the “principle of root control”, as discussed in Clements [1981].
- ii. Some root vowels are specified for [+ATR] underlyingly.
- iii. [-ATR] is assigned to vowels not specified underlyingly.

- iv. Once [ATR] is assigned, it associates to the leftmost vowel in the word and spreads rightwards onto the other vowels.

How these stipulations apply in the process of vowel harmony is illustrated in (42).

- (42) a. *firA-O*                      b. *hAr-U*

In (42), the capital letters refer to vowels unspecified for [ATR]. Vowel truncation applies in (42a) before (41). Thus, (42a) is realized as 'firO'. Stipulation (41ii) then applies to (42a) whereas (41iii) applies to (42b). This is shown in (43a, b).

- (43)        **ATR assignment**

- |                |                |
|----------------|----------------|
| +A             | -A             |
| a. <i>firO</i> | b. <i>hArU</i> |

By the stipulation (41iv), [ATR] associates to the leftmost vowel and spreads to the vowels on the right as illustrated in (44).

- |      |   |   |           |
|------|---|---|-----------|
| (44) | +A<br> <br>a. <i>firO</i>                         | -A<br> <br>b. <i>hArU</i>                         |           |
|      | +A<br>/  \<br><i>f<sub>i</sub>  r<sub>O</sub></i> | -A<br>/  \<br><i>h<sub>A</sub>  r<sub>U</sub></i> | Linking   |
|      | <i>fíró</i>                                       | <i>hárá</i>                                       | Spreading |
|      | 'gourd'   | 'leaf'  | Phonetic  |

#### 4. Conclusion

In this paper, we have argued for and shown the following points. First, assimilatory processes within the noun classes trigger certain segmental mutations such as sonorant hardening (*w* to *p* and *r* to *d*). The underlying structure of nasal prefixes in the demonstrative forms is underspecified for place of articulation. Second, the processes in noun class affixation include cluster simplification, vowel deletion, compensatory lengthening, and root controlled ATR vowel harmony.



**REFERENCES**

- Clements, G.N. 1981. "Akan vowel harmony: a nonlinear analysis." In G.N. Clements (ed.), *Harvard Studies in Phonology*, Volume 2, pp. 108-177. Bloomington: Indiana ULC.
- Clements, G.N. 1985. "The geometry of phonological features." *Phonological Year Book* 2:225-251.
- De Craene, R. 1986. "Le verbe conjugué en tem." *Studies in African Linguistics* 17:1-37.
- Kenstowicz, M., E. Nikiema and M.A. Ourso. 1988. "Tonal polarity in two Gur languages." *Studies in Linguistic Sciences* 18(2):77-104.
- Manessy, G. 1969. *Les Langues Gurunsi*. Paris: SELAF.
- Ourso, M.A. and E.O. Yu. 1987. "The noun class system in Lama." Paper presented at the 18th Conference on African Linguistics, Montreal, Canada.
- Ourso, M.A. 1988. "Nominal morphology in Lama: further evidence for lexical phonology." Ms, University of Illinois.
- Prost, A. 1964. *Lamba*. Documents Linguistiques, Université de Dakar.
- Pulleyblank, D. 1986. "Underspecification and low vowel harmony in Okpe." *Studies in African Linguistics* 17:119-153.



## **SILENCE AND RITUAL RESPONSE IN IGBO DISCOURSE**

Bertram A. Okolo  
University of Benin

This study discusses silence and ritual response as behavioural acts that are communicatively significant among the Igbos of Nigeria. Using actual discourse samples, the appropriate and inappropriate uses of these acts as well as their functions are highlighted.

### **1. Introduction**

In the Igbo culture, as may be the case in most other cultures, verbal communication is regarded as the core of any message among interactants in a conversation. However, it should be remembered that a characteristic of human speech is that most verbal behaviours, especially in Igbo culture, are usually accompanied by silence, bodily movements (most noticeably of the arms and hands as in gestures and gesticulations) and by facial expressions (as when a person's demeanor is determined through facial contortions, etc.). Of all these three accompaniments of verbal behaviours, bodily movements and facial expressions seem to have been more recognized as communicative acts than silence. For example, it has been substantiated in the literature that arm and hand movements and, to a certain extent, facial expressions are intimately linked with the process of speech production in such a way that they are rhythmically timed with speech and often seen to reflect the meaning which the speech expresses (cf. Goldman-Eisler [1958], Henderson et al. [1966], Butterworth and Beatie [1978], among others). Even at this, these bodily movements and facial expressions are merely regarded as having interpretive or relational metacommunicative significance rather than denotative (literal content level) significance which only verbal behaviour possesses.

However, it is my belief that non-verbal acts can equally be assigned denotative significance at any level depending on the contexts in which they occur, although

their interpretive metacommunicative significance may remain limited to situations when they accompany speech. The assumption that they lack the denotative level of meaning lies in the fact that we tend to view the denotative level as being identical with and tied to verbal behaviour. In actual fact, this is not always the case because denotative does not necessarily imply that the literal content of a message must be clearly translated into linguistic symbols. This is because there exist some communicative acts which can be assigned denotative significance that cannot be clearly translated into language, but which, in some ways, manifest literal contents. For example, let's assume that you walk into an office where two people, say, Obi and Uche, are conversing. You say, "Hello," to both of them, but Uche pointedly ignores your greeting. Uche's failure to respond to your greeting can be assigned significance at a literal level (which is, nevertheless, difficult to transcribe) especially if considered in relation to the ongoing conversation, or in relation to other interpretive metacommunicative behaviours such as shoulder shrug or raised eyebrows.

Whatever be the case, it is interesting to note that there seems to be agreement as to the fundamental unity between verbal and non-verbal aspects of interpersonal communication. In other words, the distinctions often made between verbal and non-verbal communication is primarily artificial since every other verbal act contains non-verbal aspects which equally contribute to the meaning of the verbal act.

In this paper, it is my intention to examine these two behavioural acts, "silence" and "ritual response", which I consider communicatively significant among the Igbos of Nigeria. I shall discuss the appropriate and inappropriate uses of these acts in spontaneous conversational exchanges, their functional uses, and the way interactants manipulate them for greater communicative effects. It is hoped that this study will not only help to show that these acts are communicatively crucial in cultures where they obtain, but will also stimulate more detailed studies of the part played by these acts in various cultures for a better understanding of natural language discourses.

## **2. Theoretical Background**

The recognition of the part played by silence in communication is not new. What seems to be new is crosscultural and crossdisciplinary study of silence. Basso [1970] to my knowledge seems to have pioneered a crosscultural investigation in this direction in his study of the use of silence among Western Apache inhabitants. Since then, interest in the role of silence in communication has blossomed, culminating in the publication of an insightful crosscultural and crossdisciplinary collection of articles on silence by Tannen and Saville-Troike [1985]. This volume not only enriches our understanding of silence as a communicative behaviour, but also highlights a variety of approaches to silence. As this book is

at the moment an important and the only comprehensive work on silence, I shall try to summarize the various contributions presented in it.

The book, *Perspectives on Silence*, is divided into five parts with a common aim: "to heighten awareness of this universal aspect of human behaviour while at the same time emphasizing its complex nature as a cultural phenomenon and its richness as a research site" (p. xi). In the first part of the book, Saville-Troike presents an overview of what silence is, its types and functions, and goes on to make interesting distinctions between types of silence behaviours such as silence implying the absence of sound with no communication taking place versus silence that is communicative; verbal silence versus non-verbal silence; and meaningful silence without any propositional content versus silence that depends on adjacent utterances.

In the second part of the book, pausing and hesitation are discussed. In the presentation of this ethnographic investigation on attitudes toward silence among Athapaskan Indians, Ron Scollon observes that pauses are assigned communicative significance by members of the cultural group. Wallace Chafe in his observations based on the viewing of a film, examines the reasons for hesitation, and contends that hesitation corresponds to the act of creation in narratives. Anne Graffam Walker, picking on a courtroom scene, discusses the opposing interpretations of witness hesitancy and the effects of hesitations by witnesses on lawyer's impressions.

The third part of the book concentrates on the uses and meanings of silence, and examines the interpretation and evaluation of silence behaviour in specific situations. For example, Deborah Tannen takes a look at the conversational style of New York Jews as interpreted by non-Jewish Californians during a dinner party, Daniel Maltz contrasts the role of noise in Pentecostal worship with the role of silence among Quakers, and Perry Gilmore examines a classroom situation and contrasts students' and teachers' interpretation and uses of silence.

Part four of the book is devoted to crosscultural perspectives of silence. First, George Saunders presents the view that noise and "grim silence" are equivalent to emotional management by the Italians. Then, Gregory Nwoye discusses the significance of silence among the Igbos of Nigeria, and concludes that in the Igbo culture, silence is eloquent. (As this paper is relevant to this study, I shall take it up in greater detail later). In another crosscultural investigation, Jaakko Lehtonen and Kari Sajavaara mention that among the Finns, preference for silence may be historically correlated to settlement patterns.

The final part of the book deals with silence and nonverbal communication. Two important contributions in this section include Sue Philips' article which contrasts interaction structured through silence and that structured through talk, and Adam Kendon's article which examines the use of gesture in face-to-face interaction in everyday situations.

Although the volume is a "Bible" on silence because of the quality of the contributions, there seems to be an obvious gap that needs to be filled. In most of the

contributions, and as noted by Goldstein [1987:567] in her review of the book, "There is unfortunate insufficiency of contextual information, matching scant pieces of social data with larger pieces of linguistic data." This gap forces the reader to rely solely on the author as to which uses and interpretation of silence are significant in given situations. This brings out the fact that attitudes toward silence may be dependent on a variety of cultural and situational constraints and influences. The intention of this paper is to attempt to provide these constraints in the use of silence and ritual responses as observed among the Igbos. It is hoped that this work will generate more research on this topic.

### **3. Silence and Ritual Response as Communicative Acts**

That silence and ritual response are communicatively significant behavioural acts will be obvious if we reflect for a moment on the roles they play in our everyday conversations: they hurt, they work against the development of a healthy interaction, as well as promote interpersonal communication if employed constructively in appropriate contexts.

A dictionary definition of "silence" may include such meanings as "absence of any sound or noise", "stillness", or "forbearance of speech or utterance". In conversations, I will regard "silence" as the avoidance of linguistic or non-linguistic (non-linguistic used here according to general usage) behavioural act when verbal or non-verbal interaction with a conversational partner is expected. Since ritual response is a verbal behavioural act, I will first try to argue that "silence" is a behavioural act, although whatever arguments presented here in favour of "silence" also apply to ritual response.

Being silent is an act, and in fact, can be regarded as a gesture. If gestures are regarded as acts that occur within a field of mutual perception among members of a cultural group, then they are best seen, not as isolated events that communicate something about a person, concept or an idea, but as part of an ongoing conversational exchange or transaction in which participants exist in relationship to each other. In other words, gestures include, not only what we do, but also what we fail to do. Not doing something is itself an act to which significance can be assigned [Watzlawick et al. 1967]. It therefore follows that silence, when employed within an ongoing communicative transaction may be a significant act in that context.

The implication arising from this is that it is impossible for one not to act in any conversational exchange, since every act becomes part of the context in the ongoing exchange. It should be borne in mind that it is not really crucial that both participants assign significance to an act for that act to affect the conversation. For example, consider a situation where a son is talking to his father on the need for an increase in his maintenance allowance at school, and the father remains silent. The son notices the silence and may interpret it to mean refusal, frugality, or an irresponsibility on his part in not being able to manage the little

he is given in the face of the current economic difficulties. In this case, the fact that the son observed and assigned significance to the silence is more important than whatever the intentions of the father were in being silent. Thus, significance can be assigned to silence either in an experiential way (as when it contributes to the interpretation of a message) or in a behavioural way (as when a conversational partner responds to it in a predictable patterned way). Therefore, conversational partners need not be able to interpret a particular "silence" correctly or in the same way for it to be significant, since significance can be assigned to it whether or not the intentions of the actor are easily accessible. It therefore follows that participants can assign implicit or explicit significance to silence in a particular context. Explicit significance takes place when at least one of the participants consciously perceives and interprets the act.

Ritual response, like silence, is a significant act both at the denotative and interpretive levels. Here, I am using "ritual response" to refer to a verbal behavioural act that is formulaic in nature, which is deliberately employed by conversational partners either to avoid real or entirely honest interaction, or to promote an ongoing conversation. Ritual response as implied here is an extremely shallow conversation that is highly formalized and formulaic in character, employed by interactants in such a way that it affects the ongoing conversation. It is therefore a verbal behavioural act, which, like silence, can be assigned significance in a communicative encounter.

It is important to note that silence and ritual response could be positively and negatively used. If positively used, they not only promote healthy interactions, but also strengthen bonds of friendship and love. For example, imagine what happens when you run into an old friend of yours with whom you have been out of touch for years. As you probably embrace each other, there is usually that wonderful silence and ritual responses that reaffirm or confirm your commitments and love to each other. On the other hand, when used negatively, rather than promote acceptance and trust, they push interactants further apart.

Among the Igbos, these behavioural acts are strategically employed in interpersonal communication. In the next section I intend to show, through reconstructed, transcribed, tape-recorded, and observed face-to-face interactions, how communicatively significant they are in Igbo culture.

#### **4. Silence in Igbo Discourse**

As a communicative act, silence is both an environment in which we grow and also an instrument which we can strategically manipulate in discourses [Smith & Williamson 1977]. When considered as an environment, silence becomes an act to which members of a cultural group collectively assign specific kinds of significance when it occurs within on-going interactions. As an instrument, we are looking at the way participants employ silence in discourses to which at least one

partner has assigned significance in a particular conversational setting. It is the instrumental aspect of silence that I am interested in here.

Just as every child in the Igbo-speaking area learns to speak fluent Igbo, so every member of the Igbo cultural group learns how to act, how to respond to acts, and how to interpret acts in ways that are more or less recognizable within the culture. In other words, within the concept of Igbo culture, we learn how to behave, how and what to discriminate, and how to assign significance to behavioural acts. Thus, significance is, in general, determined by culture; meaning, however, is created on several levels by participants in a transaction.

Nwoye [1985] observes quite correctly that the Igbos are known for their talkativeness. Whether in the company of relations, friends, or even total strangers, there is always that inner drive in the majority of them to talk, not necessarily to communicate something, but primarily as a "filler" for interactional silence. As Nwoye puts it, "it is against this background of ebullient loquacity and vivacity that the ominous meaning of silence among the Igbo can be interpreted. For a people with this type of disposition, silence is a highly marked form of behaviour" (p. 185).

He further goes on to discuss three major aspects of silence among the Igbos: the institutionalized silence, group determined silence, and individually negotiated silence. In institutionalized contexts as in bereavement or ritual performances, silence is mandatory. It therefore follows that any violation of this expected form of behaviour in such situations may attract some suspicion or lead to the inefficacy of the ritual being performed. Group determined silence is a very effective way of instilling discipline and compliance on a culprit who violates some societal norms. When this happens, members of the society are forbidden to talk to, visit, or trade with the culprit and the family until the "sins" are expiated. Individually negotiated silence among the Igbos does not differ markedly from what obtains in most other cultures. For example, it is common to find across cultures people who avoid talking to their enemies, people they don't like, or even strangers. In such situations, silence might be used negatively to communicate anger, envy, dislike, distrust, or it might even mean a pausing posture to enable one to reorganize and come up with a better revenge strategy, akin to what Nwoye [1985] calls "deferred action".

Individuals can equally use silence positively to mean consent or approval, or to express that inner satisfaction and fulfilment that cannot be sufficiently expressed in words. In this paper it is my intention to explore further the significance of silence among the Igbos drawing from actual conversational samples.

Traditional Igbo society used to be polygamous in character. In the past, wealth and greatness were assessed, not necessarily in terms of one's investments or huge financial deposits in some banks, but in terms of the number of wives and children one was able to maintain and also the amount of the consequent bickerings one was able to contain and absorb. My maternal grandfather has three wives. At the last New Yam festival to which I was invited, the celebration was



almost marred by a quarrel which erupted between the eldest and the youngest wives over whose turn it was to clean the compound. Both of them rushed to my grandfather to state their cases. The following communication took place:<sup>1</sup>

1st Wife: *Ogbuefi, i hugo otu nwunye di m si achọ nke m ga-ekwu? O makwa na ọbụ ya nwe ịzacha ezi n'izu a, ma o mee anya ka ọ hughị ya. Nza ụbọchị atọ mmadụ emetụbeghị azịza n'ezị a. I hụkwuru ya. Ya ka m na-agwa ya n'ututu, o wee chiri ọnụ ghaa m.*

'Ogbuefi (title name), do you see how my co-mate is looking for what I would say? She knows it is her turn to clean the compound this week, but she pretends as if she doesn't see the dirtiness of the whole place. For three consecutive days now, nobody has touched broom on this compound. You saw it yourself. That was what I was telling her in the morning and she opened her mouth at me.'

3rd Wife: *Okpe ikpe, i kpesigo? Ugbo ole ka i zara ya n'izu gara aga? O nwere ihe m gwara gi? O wee buru iza ezi ka i ga-eji kpọ m iru ututu.*

'Reporter, have you finished reporting? How many times did you sweep it last week? Did I tell you anything? And it is sweeping the compound that you are confronting me with first thing this morning.'

Ogbuefi: (Silent)

1st Wife: *Ogbuefi, ọ kwa i nuru ihe ọ na-ekwu? O-kwa ihe ọ ga-asị na m kwuru ka ọ na-achọ? I gaghị atunye ọnụ n'okwu a?*

'Ogbuefi, I hope you heard what she said? Is it not to claim that I said so and so that she is looking for? Will you not say something in this matter?'

Ogbuefi: (Silent)

3rd Wife: *Onye buru ụzọ chọwa ibe ya? Ọburu na i hughizi ebe i ga-azodo ukwu, were azịza zawa ezi. (walks away)*

---

<sup>1</sup>This exchange (as many others used in this study) was reconstructed and transcribed in my field note-book. There are problems associated with carrying about tape-recorders. Apart from causing embarrassment, the sight of a tape-recorder may cause interlocutors to produce unrealistic samples since they would be aware that their utterances are being recorded. In spite of the pitfalls of reconstructing utterances, I find it equally illuminating as long as one is careful in using this procedure.

'Who started looking for the other's trouble first? If you can't find where to step your feet, pick up a broom and sweep the compound.'  
(walks away)

Ogbuefi: (Silent)

1st Wife: *I kwuzina okwu.* (talking to the husband) *Qbụrụ m ugbua, i hụ ihe i ga-ekwu.* (walks away)

'Keep silent. If it is me now, you will find what to say.' (walks away)

In this encounter, my grandfather turned deaf ears to all the complaints, and this probably made the first wife walk away angrily. Among the possible interpretations one can assign to my grandfather's act, the one that best reflects his intention is neutrality, for, as he remarked after the women had left, "Involve yourself in women's matters, and you will die before your time." The problem with this type of neutrality is that it sometimes appears to be the same as disinterest. It may be looked upon (as the 1st wife probably concluded) as deliberately ignoring the faults of the "loved one" to the exclusion of others. Such communication with "low effect" (as Gibb [1961] calls it) sometimes communicates "not caring" for the welfare of others.

The above example, however, differs from a situation where silence communicates rejection. The segment below is taken from a tape-recorded conversation between four friends (cf. Okolo [1987]). I had invited the subjects in my office to take part in a linguistic project. I bought some snacks and soft drinks for them, and told them that they would have to wait for some few minutes while I went to collect the questionnaires from the typist. The tape-recorder was left on without their knowledge. I came back after thirty-five minutes and their tape-recorded conversations were transcribed. The fragment below is a part of their conversation. The subjects, however, were later told that the tape-recorded conversation would be used for a study.

One of the interactants was trying to reveal the other partner's sexual exploits in the presence of others, a topic the culprit probably did not intend to be made public. Thus the aggrieved partner turned deaf ears to all prying questions on details:

Subject 3: *Dianyi,<sup>2</sup> qbụ ebe ahụ ka i butere nwata i menyere egwu ụnyahurụ?*

'(Regulator) Was that the place you picked the girl you showed pepper yesterday?'

---

<sup>2</sup>"Regulators" are used here to refer to words that are empty in content, but which serve as "introducers" in conversational exchanges. They usually signal commencement of conversation.

Subject 1: (Silent)

Subject 2: (calls subject 1 by name) *Kedu otu nwata di?*  
'How was the girl?'

Subject 1: (Silent)

Subject 4: *Nna, i choghi inye anyi details?*  
'(Regulator) Don't you want to give us details?'

Subject 1: (Silent)

Subject 3: *Kedu onye ma oge bank ji emechi?*  
'Who knows when the banks close?'

Subject 4: *O dikwa m ka obu l o'clock.*  
'I think it is one o'clock.'

In this example, silence, which communicates rejection, seems to have been responsible for the discontinuation of the original topic, necessitating the introduction of a new topic. The significance of silence in this encounter will be better appreciated if we realize that the four interactants had all along been talking freely when suddenly the offending topic came up. Every attempt to make Speaker 1 contribute to the discussion failed, and the other participants rightly interpreted it as rejection, hence they abandoned the topic and switched to something else.

In discourses, being silent can communicate anger, especially when a participant bears the other a grudge. One of my students, (whom I will refer to as Jimmy), was consulting with me in my office when a friend of his, another student, Sam, entered. The following transcribed exchange took place (B stands for my name):

Sam: *Good morning, Sir!*

B: *Good morning. Kedu? Unu na-agukwa?*  
'Good morning. How are you? Are you studying?'

Sam: *O di mma. A na-anwa.*  
'I am fine. We are trying.'

Sam: *Jimmy, oteela m chọbalu gi. Amaghị m na ọbụ ebea ka i nọ.*

'Jimmy, I have been looking for you for long. I did not know you are here.'

Jimmy: (Silent)

Sam: *Anyị ga-ejezikwa na bookshop ichọ akwụkwọ ahụ?*

'Shall we still go to look for that book in the bookshop?'

Jimmy: (Silent)

Sam: *Jimmy, ọbụrọ gi ka m na-agwa? I naghị ekwuzi okwu?*

'Jimmy, am I not talking to you? Don't you talk again?'

Jimmy: (Silent)

B: *Jimmy, he is talking to you!*

Jimmy: *Sir, I know.*

Sam: *Sir, ka m pụwagodu. Thank you, Sir.*

'Sir, let me leave for now. Thank you, Sir.'

B: *OK. I see you later.*

After Sam had left, I asked Jimmy why he refused to respond to Sam's statements and questions. He told me that another friend of his had told him that Sam had said all sorts of things about him in the hostel, and that he felt very angry when he heard them. He went on to say that on the basis of what he heard, he didn't want to talk to Sam again, and that if Sam could say such things about him, he (Sam) could equally do him greater harm. Thus, by being silent, Jimmy was communicating anger which, of course, might not be obvious to Sam at the time, depending on whether or not he suspected that Jimmy may have heard what he allegedly said about him.

On the other hand, silence can also communicate agreement. My uncle's son, Chidi, aged eleven, had won the sum of fifty Naira in a soft drink competition. He came back to show us the money and to itemize what he was going to do with the winning. The following is a reconstructed version of the exchange:

Chidi: *Daddy, lee ego m winili na Sprite. Fifty Naira!*

'Daddy, this is the money I won in the Sprite (competition). Fifty Naira!'

Father: *You see, ego ugwo akwukwo gi adigo.*

'You see, the money for your school fees is now available'

Chidi: *I si ego ugwo akwukwo? Aga m eji ya golu ihe.*

'Do you say school fees? I shall use it to buy something.'

Father: *Gini ka i ji ego? Jee nye mama gi ka o dobere gi.*

'What are you buying with it? Go and give it to your mother to keep for you.'

Chidi: *Daddy, m ga-eji ya go slippers na akwa P.E. na bọlụ m yọbalụ gi nza ka i gotalum.*

'Daddy, I will buy slippers with it and my Physical Education outfit and the ball I have been begging you since to buy for me.'

Father: (Silent)

Chidi: *I ga egotalu m ihe ndia ma m dobe ya?*

'Will you buy these things for me if I keep it?'

Father: (Silent)

Chidi: *Ah?*

Father: (Silent)

Chidi: (Walks away)

In this example, the father's silence signifies approval, for, as he commented after the boy left, he gave in because the boy intended to spend the money usefully.

Consider another situation where silence communicates admission of guilt. My nephew, a boy of thirteen, had come back from school, went into the kitchen and ate up all the food meant for him and the elder sister. The mother confronted him:

Mother: *Emmanuel,, kedu ihe mere nri m dobeere gi na Chinwe?*  
 ‘Emmanuel, what happened to the food reserved for you and Chinwe?’

Emmanuel: (Silent)

Mother: *O kwa gi ka m na-ajụ?*  
 ‘Is it not you I am asking?’

Emmanuel: (Silent)

Mother: *O-ọ iri nri ka ị na-ahụ ike. Irie nke gi irie nke nwa nne gi maka na ọbụ sọsọ gi ka agụụ na-agụ. Mekwa ya ọzọ ka m bee gi ntị.*  
 ‘It is only in eating food that you have strength. You eat yours and eat your sister's because you are the only person who feels hungry. Do that again and I will cut off your ear.’

Although the society considers it disrespectful for a younger person to keep mute when he is being addressed by an elder, this example is appropriate and in accord with societal norms where silence communicates admission of guilt.

Silence can communicate disagreement as exemplified in the fragment below. I travelled home for Easter, and on Easter eve, I decided to pay a courtesy call on my paternal uncle. On entering the house, I discovered that he was having a serious discussion with his son. He invited me to sit down and partake of the discussion since I was no stranger. The following exchange is a reconstructed and transcribed version of the discussion.

Son: *Papa, I really love this girl. Sọsọ ya bụ onye m ma mụ na ya ga-ebini. Biko, kwadozienu. The problem bụ na ị mataghị onye ọ bụ nke ọma, otherwise, ị ga-ahụ na ọ bụ ezigbo mmadụ.*

‘Daddy, I really love this girl. She is the only person I can live with. Please, support (the marriage). The problem is that you don't understand her very well, otherwise, you will see that she is a nice person.’

Father: (Silent)

Son: *Akọwagolu m gi ihe a ọtụtụ ugbo. Ọbụrụ na mụ alughị Nkem, ma ị na onweghị onye ọbụla m ga-alụ.*

‘I have tried to explain this to you several times. If I don't marry Nkem, know that I am not going to marry anybody else.’ (walks away)

I asked the father why he was objecting to a marriage that I believed was motivated by love. The father stated that on several occasions he had tried to explain to the son that the girl in question comes from a bad family. The girl's grandfather had committed all sorts of heinous acts in the past and that he wouldn't want to be associated with such a family. He further said that his son had insisted that those past acts didn't matter, but they do in the long run, he argued. Here, the father's silence sort of says "Go ahead and do what you wish, but you will not get my support."

The above examples illustrate the appropriate uses of silence. Like all other verbal behaviours, silence can be inappropriately used. In the following example, a friend of mine had asked his younger brother, a first year undergraduate student, to mow the lawn and trim the flower hedges. When we returned in the evening, none of these chores was done. My friend (A) confronted his brother:

A: *Tom, o gini ka m gwara gi mee tutu anyi apuwa?*

'Tom, what did I ask you to do before we left?'

Tom: (Silent)

A: *O kwa mmadu ka m na-aju?*

'Is it not somebody I am asking?'

Tom: (Silent)

A: *Ya bu na anyi aburuogo ogbo nke m na-agwa gi okwu i gbachi m nkiti?*

'That is we have become age-mates, that when I am talking to you you keep silent?'

Tom: (Silent)

A: (Becomes infuriated and reaches for a cane but I restrain him.)

As I mentioned above, the society does not condone this type of silence since it is tantamount to ignoring the elder. No wonder my friend reached for a cane to demonstrate his resentment. In situations of this type, bidirectional uses of silence are unacceptable and frowned upon, and may be seen as communicating indifference. If Tom employed it here to mean unwillingness to perform the chores assigned to him (in which case it becomes admission of guilt), he really does not have any alternative since asserting his unwillingness verbally would

have been more foolhardy. But if he had other reasons for not performing the chores, it is expected of him to mention them rather than keeping silent.

Another inappropriate use of silence which differs remarkably from the above example is its use as an "escape" or "hiding" mechanism. I am regarding this use as inappropriate in the sense that it not only works against the development of one's healthy self-concept, but it is also usually interpreted by others as indifference or unwillingness to relate (which may not be in agreement with the actor's intentions), and more often than not, people react to it by rejecting the silent individual.

Individuals can be unnecessarily shy in the company of others. This shyness could be as a result of several factors ranging from the level of education or sophistication to a feeling of inferiority, and any of these can drive one into "hiding" in silence. I attended a send-off party of one of my colleagues with a friend. My friend tried to strike up a conversation with a girl (P) who was sitting by him:

F: *Nne, kedu?*

'(Regulator) How are you?'

P: *Good evening, Sir.*

F: *Good evening. Kedu aha gi?*

'Good evening. What is your name?'

P: (Looks F in the face timidly)

F: *Kedu aha gi? I bu nwanne George? (chief host)*

'What is your name? Are you a sister to George?'

P: (Silent)

F: *Nne, o nwere ihe na-esere anyi igaghị eji ghe m ọnụ? Ọbụ igwa m aha gi mma gi agwụ? Aha m bu Felix.*

'(Regulator) Are we quarrelling as to make you not talk to me? If you tell me your name will your beauty vanish? My name is Felix.'

P: (Gets up and changes seat)

F, totally embarrassed, quietly put down the cup of beer he was sipping. Since I overheard every bit of the exchange, I tried to convince him to ignore the whole incident so that it would not spoil the evening for him. But still, his coun-



tenance betrayed the inner disappointment. The chief host noticed F's unusual quietness and came over to enquire if everything was all right. F narrated the incident to him, and George, in his usual humorous way, started teasing F. However, in a more serious note, George explained that P was his half sister and that he was not surprised that she behaved the way she did. He further explained that she had a problem in relating to people and that it was this problem that made him bring her out from the village to live with him.

Here, we see a case where silence is not really indifference on the part of the actor but inability to relate to others. Such individuals may, in fact, desire companionship, but their fear of exposing themselves forces them to keep mute. If explanations had not been given of P's problems, we would have interpreted her silence as indifference, thus rejecting her as a person. This example also illustrates another use of silence: a show of discomfort or embarrassment as demonstrated by F's putting down his beer and remaining quiet, thus attracting his host's attention.

From these examples it becomes clear that silence as a communicative act among the Igbos can be assigned significance in the context of an on-going conversation, whether or not the significance is in accord with the actor's real intentions. Since members of a particular cultural group act and respond to acts in predictable patterned ways, it follows that behavioural acts are interpretable in the context of any conversational exchange, and these acts can be appropriately or inappropriately employed in line with established cultural norms.

#### 4. Ritual Response in Igbo Discourse

Ritualized communication is a behavioural act that is common in Igbo discourse. It can promote and facilitate an on-going communication as well as inhibit it, depending on when and how it is used.

Like silence, one can use ritualized responses to avoid all real and honest communication. In the segment below, I telephoned a friend to share the good news of the approved increase in our monthly pay, a topic I thought would generate excitement. The following reconstructed conversation took place (B stands for my name, and R for my friend's):

B: *Nna, inugo na ha emego approve ego anyi na e-demand?*

'(Regulator) Did you hear that they have approved the money we were demanding?'

R: *Eziokwu?*

'True?'

B: *A nūrū m ya na News n'ūtūtū. Ha sī na ha ga-ebido ikwū ya n'ōnwa a.*

'I heard it in the Morning News. They said they would start paying it this month.'

R: *Eh-e!*

B: *Ha biko kwūq ya, na ihe chere mmadū erika.*

'Let them please pay it, because the problems awaiting one are much.'

R: *Ka a na-ele ha anya.*

'Let's be watching them.'

B: *I na-emezi ka i laikighi ya.*

'You are doing as if you don't like it.'

R: *O ka m mee gini?*

'What do you expect me to do?'

In this example, apart from shortening what would have been a lengthened and exciting conversation, formulaic responses as used by R not only made me feel bad for initiating the topic, but also implicates that he was "hiding" in ritual. Among the several possible interpretations for his acts may be lack of interest in the topic, unwillingness to be frank with me, or even an attempt to avoid being himself. Whatever R's intentions were in acting as he did, he succeeded not only in frustrating and subduing the ongoing conversation, but also in hurting the conversational partner whose enthusiasm in sharing something very important was dashed by R's shallow responses.

Thus, ritualized verbal acts can communicate "not caring" or indifference. In such situations, rather than being silent or assertive, the individual chooses to be "courteous" by hiding in ritual which provides him an opportunity to camouflage his actual intentions or feelings. Being silent would be more revealing of the actor's inner feelings, but ritual responses apart from shielding these inner feelings from the conversational partner, affords the actor the lee-way of criticizing whatever interpretations the hearer might come up with.

A more common and frequent use of ritual response is to communicate surprise or wonder, especially if one is hearing something for the first time. In the following example, a colleague of mine was telling me of how one of the clerks in the university was run down by a car and had her legs shattered (G stands for my friend's name and B for mine):

G: *I jego hụ Mrs O na hospital?*

'Have you gone to see Mrs. O. in the hospital?'

B: *O gini mere ya?*

'What happened to her?'

G: *I nūrọ na moto egbusigo ya na Saturday?*

'Didn't you hear that she was almost killed by a car on Saturday?'

B: *Eh-e! Eziokwu? Anughikwa m.*

'Eh-e! Truly? I didn't hear.'

G: *O nọ na main road na-eche taxi ọ ga-e ji je ahịa. Ebe ahụ ka ọ kwụ otu moto wee bịa kuto ya n'ala.*

'She was standing by the main road waiting for a taxi to take her to the market. She was standing there when a car came and knocked her down.'

B: *O-ọ nke melunụ?*

'Was that what happened?'

G: *O kwa otu ọ ka esi wee nwụ, rapụ ụmụ-aka anọ.*

'That's how she would have died, leaving four children behind.'

B: *Chukwu alụkakwa. M ga-e je ihụ ya.*

'God has done well. I shall go to see her.'

The above example illustrates a sincere and an appropriate use of ritual responses, where the literal content of the expressions represents the speaker's intentions.

However, there are situations where ritual responses are strategically used to communicate doubt or disbelief. When used in this manner, the formulaic responses are really not sincere in the sense of either promoting the ongoing conversation or indicating a desire to learn more about what is being said, but merely euphemistic ways of expressing doubt or disbelief without inhibiting the conversation. Such usages, in fact, represent the direct opposite of the literal content of the expressions. An example of this usage is seen in this segment where Speaker 2 had invited Speaker 1 to join them in a business deal. Speaker 1 suspecting the deal to be dubious, declined, and Speaker 2 was forced to look for a more cooperative friend. The friend with whom Speaker 2 had suffered the

business failure earlier (before the reconstructed encounter below) confided in Speaker 1 of the disastrous failure of the deal. When Speaker 1 met Speaker 2, the business deal issue was raised:

Speaker 1: *Unu emezikwalu business obu?*

'Did you (plural) still do the business?'

Speaker 2: *Ofuma ofuma. O-o ihe m na-agwa gi ka i soro mee. Uru putara na ya ka nku.*

'Very well. That was what I was telling you to do with us. The profit realized from it was much.'

Speaker 1: *Eh-e! Gwa m okwu.*

'Eh-e! Tell me something.'

Speaker 2: *Ihe obu bu mmadu riwe ego n'izu a!*

'What it means is that one should spend money this week!'

Speaker 1: *O nke merenu? Biko Chetakwa m.*

'Was that what happened? Please remember me.'

Speaker 2: *Ihe di m mkpa ugbua bu i-change moto m.*

'What is important to me now is changing my car.'

Speaker 1: *Eziokwu! Inafelugo.*

'Really! You have escaped.'

Armed with a prior knowledge of how the deal went, Speaker 1's responses were just to keep the conversation going and to hear more of Speaker 2's lies. Rather than confronting Speaker 2 openly, Speaker 1 chose to hide in ritual, pretending as if he was in agreement with what Speaker 2 was saying.

From these examples it would be seen that ritualized communication is communicatively important and can be assigned significance depending on the context. Whether sincerely or insincerely employed, its function seems to be to keep the conversation going.

## **5. Discussion**

From the few samples examined above, it could be seen that silence and ritual responses are important behavioural acts among the Igbos, and they are strategically employed in discourses to achieve specific communicative functions. Although these behavioural acts can be interchangeably used to perform certain functions in particular situations, say, in expressing neutrality or indifference, agreement, or even to avoid being one's real self in an attempt to escape from self-committing circumstances, silence can be used to perform all the other functions of ritual responses but the reverse is not generally the case. For example, silence can be comfortably used to avoid real and honest communication, to express surprise and wonder (as when someone is speechless with mouth agape), and even to express doubt and disbelief. However, it does seem that ritual responses cannot handle some of the communicative functions of silence, such as rejection, anger, or admission of guilt, without creating some ambiguities. It may be possible to employ ritual responses in fulfilling some of the above mentioned functions through the use of indirectness, but such usages will be highly restrictive and unexpected and may require special communicative ability to achieve the needed effects.

Thus, while silence can substitute for ritual responses, the latter cannot substitute for the former without generating serious discourse defects.

## **6. Conclusion**

In this study, I have tried to show that silence and ritual responses are communicatively significant in Igbo discourse. They are behavioural acts that can be assigned significance in particular contexts in the on-going conversations.

This work should be seen as complementing Nwoye's article in Tannen and Saville-Troike [1985] by providing more contextual and real life discourse samples. By using actual examples, it becomes easier not only to identify the various uses of silence and ritual responses in specific contexts, but also to show how cultural and situational constraints can influence their communicative significance. I have tried to show that among the Igbos, silence can possibly be used to perform the same communicative functions as ritual responses, although the reverse is not the case in all situations. For example, whereas ritual responses are less likely to be used to communicate rejection, anger, or admission of guilt, they could be effectively used to communicate agreement, indifference or neutrality. The major specific function of ritualized communication seems to be an attempt to keep the conversation going, whether or not the actor's real intentions in doing so are genuine, a strategy that is not obvious with silence. However, since members of a particular culture are able to act and respond to these acts, interactants are always able to assign interpretations to them, even when such interpretations may differ from the actor's real intentions.

It is hoped that this study will generate more interest in crosscultural study of these behavioural acts in real life situations for a better understanding of their functions in various cultures.

### REFERENCES

- Basso, Keith H. 1970. "To give up on words: silence in Western Apache culture." *Southwestern Journal of Anthropology* 26:213-230.
- Butterworth, B. and G. Beatie. 1978. "Gesture and silence as indicators of planning in speech." In R.N. Campbell and Philip T. Smith (eds.), *Recent Advances in the Psychology of Language*, Vol. 46, pp. 347-360. New York and London: Plenum Press.
- Gibb, J.R. 1961. "Defensive communication." *Journal of Communication* 11:141-148.
- Goldman-Eisler, F. 1958. "Speech production and predictability of words in context and length of pauses in speech." *Language and Speech* 1:96-120.
- Goldstein, D.E. 1987. Review of Perspectives on Silence. *Language and Society* 16:565-569.
- Henderson, A., F. Goldman-Eisler and A. Skarbek. 1966. "Sequential temporal patterns in spontaneous speech." *Language and Speech* 9:207-216.
- Nwoye, G.O. 1985. "Eloquent silence among the Igbo of Nigeria." In Deborah Tannen and Muriel Saville-Troike (eds.), *Perspectives on Silence*, pp. 185-191. Norwood, NJ: Ablex Publishing Corporation.
- Okolo, B.A. 1987. "Topic shading in an unplanned Igbo discourse." *Studies in African Linguistics* 18:211-237.

- Smith, R.D. and L.K. Williamson. 1977. *Interpersonal Communication*. Dubuque, Iowa: William C. Brown Company Publishers.
- Tannen, Deborah and Muriel Saville-Troike (eds.). 1985. *Perspectives on Silence*. Norwood, NJ: Ablex Publishing Corporation.
- Watzlawick, P., Janet H. Beavin and Don D. Jackson. 1967. *Pragmatics of Human Communication: a Study of Interactional Patterns, Pathologies and Paradoxes*. New York: W.W. Norton & Co.





## A RE-EXAMINATION OF THE 9TH VOWEL PHONEME IN IGBO<sup>1</sup>

Ambrose Adikamkwu Monye  
University of Benin

In this study the author provides some linguistic evidence to support his argument that /ɛ̄/ is an autonomous vowel phoneme in the Enuani dialect. First, he uses some minimal pairs to show instances where it contrasts with both /e/ and /a/. In addition, he compares the Enuani vowel harmony set with the eastern Igbo set, pointing out that whereas the former has 9 vowel phonemes with the vowel phoneme /ɛ̄/ inclusive, the latter has 8 without it. Finally, he uses unitary words to show instances where /ɛ̄/, /e/, and /a/ either co-occur or do not co-occur in the Enuani dialect. With the above points he conclusively argues that /ɛ̄/ is a vowel phoneme in the Enuani dialect.

### 0. Introduction

Among the Igbos who live on the West bank of the River Niger are the Enuanis who make up the present Aniocha Local Government Area in Bendel State of Nigeria. The major dialect spoken by this people is the Enuani dialect which is quite intelligible to their Igbo neighbours in Oshimili, Ndokwa, and Ika Local Government Areas in Bendel State and also across the Niger. Our study of the Enuani dialect reveals that like the

---

<sup>1</sup>This paper originally appeared as Monye [1987]. I have decided to write a reappraisal on it following the criticisms by some of my colleagues which I consider quite incisive. Some of the criticisms centre on the need to use some minimal pairs to show instances where /ɛ̄/ contrasts with /a/ as it does with /e/, the latter of which I only discussed in my earlier presentation. Yet another incisive criticism on the paper was the need to do a comparative study of the Enuani vowel harmony set with that of the eastern Igbo dialect as well as using unitary words to show instances where /ɛ̄/, /e/, and /a/ co-occur among themselves and also where they occur or do not occur with both the "dotted" and "non-dotted" harmony set in the Enuani vowel chart. Consequently, the present study shall fully address these criticisms while incorporating my earlier views which I still find pertinent in this study.

dialects of the above-mentioned local government areas west of the Niger, it has a 9th vowel phoneme /ɛ/. This feature contrasts with what obtains in most Igbo dialect areas east of the Niger, where 8 vowel phonemes have been recorded. Probably more out of ignorance than from empirical evidence, a number of scholars of Igbo linguistics have come to the erroneous conclusion that since the 9th vowel phoneme phenomenon is not noticeable in a majority of the Igbo dialect areas east of the Niger it is non-existent in the Igbo language. That is why, for instance, there is hardly any mention of this phoneme in most of their works including articles, stories, books, etc. For example, there is no instance of the use of /ɛ/ as a vowel phoneme in any of F.C. Ogbalu's works [1962, 1972a, 1972b]. Similarly, both G.E. Igwe and M.M. Green do not mention it in their works [1962, 1964, 1967, 1970]. Further examples could also be cited with the works of Carnochan [1960] and those of B.F. Welmers and W.E. Welmers [1968a, 1968b]. And, even in the works of Kay Williamson [1966, 1968, 1972] and Nolie Emenanjo [1978], /ɛ/ is either regarded as an allophone of the vowel phoneme /e/ or as a phonemic vowel which is found in some "peripheral" dialects.<sup>2</sup> Others have considered it a variant of the phoneme /a/. We have also noticed that there is hardly any Igbo linguist who has given this vowel phoneme a close study. Consequently, in this study, our aim is to demonstrate with ample evidence that it is a vowel phoneme in Igbo, and that it deserves the attention of the Igbo linguist.

In this study we shall provide some linguistic evidence to demonstrate that /ɛ/ has the full status of a vowel phoneme in the Enuani dialect and that it is neither a variant nor an allophone of either the /a/ or /e/ vowel phoneme. Pursuant to achieving this objective we shall do the following:

1. Compare the Enuani vowel chart with that of the eastern Igbo dialect.
2. Use minimal pairs in the Enuani dialect to show that /a/ contrasts with /ɛ/.

---

<sup>2</sup>It is not clear what Emenanjo [1978] really means by the term "peripheral dialects" here. One does not know whether he is trying to imply "border". That is, dialect areas which share common boundaries with other language groups as the people of Ika Local Government Area in Bendel State, for example, share common boundaries with the Ishans and Binis, and as the people of Ndokwa Local Government Area in Bendel State also share common boundaries with the Isokos and Urhobos. But even then, do we not have instances of this in Anambra and Imo States where the people of Nsukka, for example, share common boundaries with the Idomas and also where the people of Owerri share common boundaries with the Ikwerres in Benue and Rivers respectively? Has such a phenomenon as this resulted in the evolution of another vowel phoneme in these "peripheral" Igbo dialect areas? Or, is Emenanjo trying to imply "small" or "minor" dialect areas? That is, small communities whose dialects are distinct from those of the supposedly major dialect groups? Granted that "peripheral" in this context is taken to mean "minor" or "small", has Emenanjo done any demographic study of all the Igbo dialect areas which study led him to the conclusion that the western Igbo dialects are "peripheral"?

3. Use minimal pairs in the Enuani dialect to show that /e/ contrasts with /ɛ/.
4. Provide data to show that both /e/ and /ɛ/ co-occur with the non-dotted harmony set whereas /a/ co-occurs only with the dotted ones and /ɛ/ co-occurs with both /e/ and /a/.

### 1. Comparison between Enuani and Eastern Igbo Dialect Vowel Chart

A close look at the vowel chart of both the Enuani and eastern Igbo dialects reveals that they are quite dissimilar. For instance, both Williamson [1972:xiii] and Emenanjo [1975:122] have observed that there are 8 vowels in the eastern Igbo dialect whereas our investigations reveal that there are 9 vowels in the Enuani dialect. Thus, in the eastern Igbo dialect the vowel chart is composed as follows:

set I	
<i>i</i>	<i>ɥ</i>
<i>o</i>	<i>a</i>
set II	
<i>i</i>	<i>u</i>
<i>o</i>	<i>e</i>

In the Enuani dialect the vowel chart is composed as follows:

set I	
<i>i</i>	<i>ɥ</i>
<i>o</i>	<i>a</i>
set II	
<i>i</i>	<i>u</i>
<i>o</i>	<i>e</i>
	<i>ɛ</i>

A careful look at set I in both dialects above reveals that it consists of the dotted harmony set whereas set II consists of the undotted ones. However, we notice that whereas there are four vowels in set II of the eastern Igbo dialects there are five vowels in that of the Enuani dialect and that /ɛ/, which we do not find in the former dialect, is the 5th vowel in the latter. Later in this study, we shall compare the vowel harmony set of both dialects.

## **2. The Contrast between the /a/ and /ɛ/ Vowel Phonemes in the Enuani Dialect**

In this section, we shall provide linguistic evidence to demonstrate that /ɛ/ is an autonomous vowel phoneme in the Enuani dialect and that it is neither a variant nor an allophone of the /a/ vowel phoneme. Let us now examine the following minimal pairs in the dialect where it is evident that it contrasts with /a/ and cannot therefore be either a free variant or a conditioned allophone of it:

- |     |   |                                      |
|-----|---|--------------------------------------|
| (1) | <i>ɛkwè</i><br><i>akwà</i>              | ‘careful and neat person’<br>‘cloth’ |
| (2) | <i>ɛsɛ</i><br><i>àsà</i>                | ‘clean, neat’<br>‘public, open’      |
| (3) | <i>ngɛlɛ</i><br><i>ngàlā</i>            | ‘to gossip’<br>‘pride’               |
| (4) | <i>ɛbè</i><br><i>àbà</i>                | ‘lame man’<br>‘charm, sorcery’       |
| (5) | <i>ɛsɛlɛ</i><br><i>ɛsālā</i>            | ‘slim’<br>‘pepper soup’              |
| (6) | <i>lɛlɛlɛ</i><br><i>lālālā</i>          | ‘gently’<br>‘hurriedly, fast’        |
| (7) | <i>pɛ</i><br><i>pā</i>                  | ‘slice’<br>‘to carry’                |
| (8) | <i>gwɛ̀gwɛ̀gwɛ̀</i><br><i>gwàgwàgwà</i> | ‘alluring’<br>‘restive, coarse’      |

- (9) *ewelē* 'good luck'  
*awalā* 'funny, humorous'
- (10) *mfèlẹ* 'to be fast'  
*mfála* 'to boast, brag'
- (11) *èkpè* 'a type of yam'  
*àkpà* 'bag'
- (12) *èpẹ* 'neatness'  
*àpa* 'pant'
- (13) *gèlẹ* 'to gossip'  
*gàla* 'to be costly'
- (14) *sèkèè* 'very dirty'  
*sàkàà* 'very bogus'

For the avoidance of doubt, we have tone-marked the above fourteen minimal pairs in the Enuani dialect to distinguish their specific lexical meanings.<sup>3</sup>

### 3. The Contrast between the /e/ and /ẹ/ Vowel Phonemes in the Enuani Dialect

In this section we shall use minimal pairs in the Enuani dialect to demonstrate that as /a/ contrasts with /ẹ/ so does /e/ contrast with it, and as such, it could be rightly argued that it has the full status of an autonomous vowel phoneme in the dialect. Consider the following minimal pairs.

- (15) *ifè* 'to disgrace oneself'  
*ifè* 'to worship'
- (16) *èlẹlẹ* 'moi-moi or bean pudding'  
*èlèlè* 'profit'

---

<sup>3</sup>We need to remark that the tone mark pattern adopted here is as follows:

1. The unmarked for high, e.g. *aka* 'hand'.
2. The marked for low, e.g. *isī* 'blindness'.
3. The step, e.g. *isī* 'head'.

- (17) *òsẹ̀* 'God'  
*òsè* 'convulsive fits'
- (18) *ẹ̀kẹ̀* 'a very careful and neat person'  
*ekè* 'gizzard'
- (19) *m̀gbẹ̀lẹ̀* 'loaning, borrowing'  
*m̀gbẹle* 'loaning, borrowing'
- (20) *kpẹ̀li* 'to insult'  
*kpeli* 'to adjucate for, argue on behalf of'
- (21) *ẹ̀kpẹ̀* 'a type of yam'  
*èkpè* 'time'
- (22) *hẹ̀ni* 'take up, bring up'  
*heni* 'raise an object'
- (23) *kpẹ̀chi* 'make filthy'  
*kpechi* 'to litigate again'
- (24) *kwẹ̀li* 'to peel and eat, e.g. yam'  
*kweli* 'to agree'
- (25) *ntẹ̀tẹ̀* 'to lead gingerly'  
*ntète* 'to economize'

#### **4. Comparison between the Enuani and Eastern Igbo Dialect Vowel Harmony System**

Here, we intend to briefly examine the difference, if any, between the Enuani and eastern Igbo dialect vowel harmony system so as to enable us to find out the vowels which co-occur with each other and which do not. Secondly, such an exercise, we hope, will help us to find out if /ẹ̀/ can co-occur with both /e/ and /a/. As we have earlier noted, the eastern Igbo and Enuani dialects have the following vowel sets:

Eastern Igbo		Enuani	
set I		set I	
<i>i</i>	<i>ɥ</i>	<i>i</i>	<i>ɥ</i>
<i>ɔ</i>	<i>a</i>	<i>ɔ</i>	<i>a</i>
set II		set II	
<i>i</i>	<i>u</i>	<i>i</i>	<i>u</i>
<i>o</i>	<i>e</i>	<i>o</i>	<i>e</i>
			<i>ɛ</i>

In the eastern vowel harmony system we notice that /a/ can co-occur with dotted and undotted vowels in both sets I and II whereas it can only co-occur with dotted vowels in the latter. For example, let us compare the following word lists in the two dialects:

Enuani Dialect		Eastern Igbo Dialect	
1. <i>òlòmɛ</i>	‘orange’	<i>òlòma</i>	‘orange’
2. <i>èkwùmɛ</i>	‘sheabutter’	<i>òkwùma</i>	‘sheabutter’
3. <i>òlìsɛ̀</i>	‘God’	<i>òlìsà</i>	‘God’
4. <i>eìlòkɛ̀</i>	‘thought deeply’	<i>eìlòka</i>	‘thought deeply’
5. <i>ɛ̀wɛ̀lɛ̀</i>	‘good luck’	<i>awɛ̀lɛ̀</i>	‘good luck’
6. <i>ɛ̀dù</i>	‘bitter kola’	<i>àdù</i>	‘bitter kola’
7. <i>ɛ̀fɛ̀</i>	‘dress’	<i>àfɛ̀</i>	‘dress’
8. <i>ɛ̀kpɛ̀lɛ̀</i>	‘horn’	<i>àkpɛ̀lɛ̀</i>	‘horn’
9. <i>ɛ̀kpɛ̀tĩ</i>	‘box’	<i>akpàtĩ</i>	‘box’

10.	<i>ẹfẹlẹ</i>	'plate'	<i>afele</i>	'plate'
11.	<i>ekwene</i>	'don't agree'	<i>ekwena</i>	'don't agree'
12.	<i>emeke</i>	'has done marvellously'	<i>emeka</i>	'has done marvellously'

In the above table, the words to the left are from the Enuani dialect whereas those to the right are from the eastern Igbo dialect. In the first wordlist, in item number 1, *òlòmẹ/òlòmá* 'orange', we notice that whereas the vowel /a/ in the eastern Igbo dialect co-occurs with the "undotted" vowel /o/ in set II of the vowel chart, the vowel /ẹ/ which is in set II of the Enuani dialect vowel chart co-occurs with the vowel /o/ which is also in set II of the same chart. A cursory look at the other words in the same table reveals that in the eastern Igbo dialect /a/ co-occurs with all the "undotted" vowels /u/, /o/ and /e/ as indicated below:

/a/	and	/u/	in No. 2.	-	<i>òkwùma</i>	'sheabutter'
/a/	and	/i/	in No. 3.	-	<i>òlísà</i>	'God'
/a/	and	/o/	in No. 4.	-	<i>eIòka</i>	'thought deeply'
/a/	and	/e/	in No. 5.	-	<i>awelē</i>	'good luck'
/a/	and	/u/	in No. 6.	-	<i>àdù</i>	'bitter kola'
/a/	and	/e/	in No. 7.	-	<i>áfè</i>	'dress'
/a/	and	/e/	in No. 8.	-	<i>àkpele</i>	'horn'
/a/	and	/i/	in No. 9.	-	<i>akpàtĩ</i>	'box'
/a/	and	/e/	in No. 10.	-	<i>afele</i>	'plate'
/a/	and	/e/	in No. 11.	-	<i>ekwena</i>	'don't agree'
/a/	and	/e/	in No. 12.	-	<i>emeke</i>	'has done marvellously'

We notice that it also co-occurs with the "dotted" vowels /ụ/, /ọ/ and /ĩ/ as indicated below:

/a/	and	/ụ/	as in	<i>abụ</i>	'song'
				<i>agụ</i>	'lion'
				<i>anụ</i>	'meat'



/a/	and	/o/	as in	<i>afɔ</i>	‘stomach’
				<i>ànɔ</i>	‘four’
				<i>asɔ</i>	‘spittle’
/a/	and	/i/	as in	<i>akɪ</i>	‘palmfruit’
				<i>àsɪ</i>	‘lie’
				<i>ànĩ</i>	‘earth’

This feature sharply contrasts with what obtains in the Enuani dialect where /ɛ/ can only co-occur with the “undotted” vowels /i/, /u/, /o/ and /e/ as exemplified in the same table above repeated hereunder:

/ɛ/	and	/o/	in No. 1.	-	<i>òlòmɛ</i>	‘orange’
/ɛ/	and	/u/	in No. 2.	-	<i>èkwùmɛ</i>	‘sheabutter’
/ɛ/	and	/i/	in No. 3.	-	<i>òfìsè</i>	‘God’
/ɛ/	and	/o/	in No. 4.	-	<i>eìðkɛ</i>	‘thought deeply’
/ɛ/	and	/e/	in No. 5.	-	<i>ɛwɛlɛ</i>	‘good luck’
/ɛ/	and	/u/	in No. 6.	-	<i>èdù</i>	‘bitter kola’
/ɛ/	and	/i/	in No. 9.	-	<i>ɛkpètĩ</i>	‘box’
/ɛ/	and	/e/	in No. 11.	-	<i>ekwenɛ</i>	‘don't agree’
/ɛ/	and	/e/	in No. 12.	-	<i>èmekɛ</i>	‘has done marvellously’

From the evidence of what we have observed above we can rightly conclude that whereas /a/ can co-occur with both dotted and undotted vowels in both sets I and II of the eastern Igbo vowel harmony set it can only co-occur with the dotted ones in Set I of the Enuani vowel harmony system with the possible exception of the vowel phoneme /ɛ/ with which it can co-occur even though they belong to sets I and II respectively of the Enuani dialect vowel chart. We shall examine this phenomenon presently.

The next task before us is to carefully go through the vowel phonemes /ɛ/, /e/ and /a/ with the object of finding out whether or not they can co-occur with both the “dotted” and the “undotted” harmony sets in the Enuani dialect as well as among themselves. In the main, our examples shall be demonstrated with unitary words, and we shall examine the vowels as they take both initial and final positions in the words chosen for our study.



/ɛ/ with /e/ in final position: There is no instance of this in the Enuani dialect according to our investigations, at least, in unitary words.

**5.2. The vowel /ɛ/ with “dotted” vowels.** As far as our investigations go there is no instance where /ɛ/ co-occurs with the “dotted” vowels (set I) in the Enuani vowel chart. However, there are a few instances where it co-occurs with the vowel /a/ only in the final position as indicated below:

/ɛ/ with /a/ as in:	àse	‘neat and decent’
	ànè	‘a lazy fellow’
	àlè	‘a sleek and beautiful object’
	àgègè	‘a type of fruit with black coat when ripe’
	anèenèè	‘a succulent violet bead-like fruit’

There are also some instances where /ɛ/ co-occurs with /a/ and /u/ with the latter in the final position as in

<i>achenu</i>	‘coral bead’
<i>àkèmù</i>	‘pap’
<i>àlèfù</i>	‘white yam’
<i>àjèdù</i>	‘a prostitute’

## 6. Co-occurrences of the Vowel /e/ with other Vowels

**6.1. The vowel /e/ with “non-dotted” vowels.** We shall now find out instances where /e/ co-occurs with the “non-dotted” vowels, /i/, /o/, /u/, and /ɛ/ in both initial and final positions.

/e/ with /i/ in initial position:	<i>efi</i>	‘cow’
	<i>èbì</i>	‘storm’
	<i>eji</i>	‘snail’

/e/ with /i/ in final position:	<i>ifè</i>	‘the moon’
	<i>ibè</i>	‘colleague’
	<i>ije</i>	‘journey’

/e/ with /o/ in initial position:	<i>ego</i>	'money'
	<i>eɪɔ</i>	'mushroom'
	<i>ebo</i>	'kindred group'
/e/ with /o/ in final position:	<i>ofe</i>	'soup'
	<i>ogè</i>	'time'
	<i>osè</i>	'pepper'
/e/ with /u/ in initial position:	<i>èbù</i>	'wasp'
	<i>esu</i>	'millepede'
	<i>emù</i>	'sickness'
/e/ with /u/ in final position:	<i>ùbe</i>	'pear'
	<i>ùkè</i>	'trouble'
	<i>ùme</i>	'bereavement'

As for the instances where /e/ co-occurs with /ɛ/, see above where we have already examined instances where /ɛ/ co-occurs with /e/.

**6.2. The vowel /e/ with “dotted” vowels.** Our investigations reveal that there is no instance where /e/ co-occurs with the “dotted” vowels in the Enuani vowel harmony system.

## **7. Co-occurrence of the Vowel /a/ with other Vowels**

**7.1. The vowel /a/ with the “non-dotted” vowels.** As far as our investigations go, there is no instance where /a/ co-occurs with the “non-dotted” vowels in the Enuani vowel harmony system except in the situation where it co-occurs with the vowel phoneme /ɛ/ as already indicated above.

**7.2. The vowel /a/ with “dotted” vowels.** Let us now examine instances where /a/ co-occurs with the “dotted” vowels /ɪ/, /ɔ/ and /u/ both in initial and final positions.

/a/ with /i/ in initial position:	<i>àsí</i>	‘a lie’
	<i>ànǐ</i>	‘earth’
	<i>àpí</i>	‘uncircumcised penis’
/a/ with /i/ in final position:	<i>ítà</i>	‘story’
	<i>ìbà</i>	‘fever’
	<i>ìhà</i>	‘people’
/a/ with /o/ in initial position:	<i>àtọ</i>	‘three’
	<i>abọ</i>	‘yam basket’
	<i>afọ</i>	‘stomach’
/a/ with /o/ in final position:	<i>ọkà</i>	‘maize’
	<i>ọsa</i>	‘squirrel’
	<i>ọbà</i>	‘position’
/a/ with /u/ in initial position:	<i>abụ</i>	‘song’
	<i>alụ</i>	‘crime’
	<i>anụ</i>	‘meat’
/a/ with /u/ in final position:	<i>ùba</i>	‘prosperity’
	<i>ụkà</i>	‘church’
	<i>ụla</i>	‘sleep’

## 8. Conclusion

In this study we have tried to demonstrate that /e/ is neither an allophone nor a variant of either the /a/ or /e/ vowel phoneme but is, indeed, an autonomous vowel phoneme in the Enuani dialect. That by implication means that there are 9 vowel phonemes in the Enuani dialect as against the 8 that have been recorded in the eastern Igbo dialect. To demonstrate that /e/ has the full status of a vowel phoneme and that it, indeed, is the 9th vowel phoneme in the Enuani dialect, we have tried to do a comparative study of the Enuani and eastern Igbo vowel charts where we discovered that whereas the former has 9 vowels the latter has 8 vowels. We have also observed that whereas in the eastern Igbo vowel chart all the vowels in sets I and II do co-occur and harmonize with one another it is only the ones in set I which can co-occur and harmonize among themselves as it is also

only the ones in set II that can co-occur and harmonize among themselves in set II in the Enuani vowel chart. To further demonstrate that /e/ like /a/ and /e/ is an autonomous vowel phoneme in the Enuani dialect we have used some minimal pairs to show that it contrasts with both vowel phonemes. And more importantly, we have, by the use of some unitary words in the dialect, shown instances where it co-occurs with both /a/ and /e/ which evidence unquestionably demonstrates that it can neither be an allophone nor a variant of either of these vowel phonemes but, actually, is an autonomous vowel phoneme in the Enuani dialect.

### REFERENCES

- Carnochan, J. 1960. "Vowel Harmony in Igbo." *African Language Studies*, 1:155-163.
- Emenanjo, E.N. 1975. "Central Igbo: an objective appraisal." In F.C. Ogbalu and E.N. Emenanjo (eds.), *Igbo Language and Culture*, pp. 114-137. Ibadan: Oxford University Press.
- Emenanjo, E.N. 1978. *Elements of Modern Igbo Grammar*. Ibadan: Oxford University Press.
- Igwe, G.E. and M.M. Green. 1962. *Igbo Language Course Book I*, Igbo Language Study. Ibadan: Oxford University Press.
- Igwe, G.E. and M.M. Green. 1964. *A Short Igbo Grammar*. Ibadan: Oxford University Press.
- Igwe, G.E. and M.M. Green. 1967. *Igbo Language Course: Book II*, Igbo Dialogues and Stories. Ibadan: Oxford University Press.
- Igwe, G.E. and M.M. Green. 1970. *Igbo Language Course: Book III*, Dialogues, Sayings, Translations. Ibadan: Oxford University Press.
- Monye, A.A. 1987. "The 9th Vowel phoneme in Igbo." *Journal of Asian and African Languages* 34:95-103.
- Ogbalu, F.C. 1962. *Okowa-Okwu: Igbo-English, English-Igbo Dictionary*. Onitsha: Varsity Printing Press.

- Ogbalu, F.C. 1972a. *The Correct Way to Write Igbo*. Onitsha: University Publishing Co.
- Ogbalu, F.C. 1972b. *School Certificate/GCE Igbo*. Onitsha: University Publishing Co.
- Welmers, B.F. and W.E. Welmers. 1968a. *Igbo: a Learner's Manual*. Los Angeles: Privately published.
- Welmers, B.F. and W.E. Welmers. 1968b. *Igbo: a Learner's Dictionary*. Los Angeles: African Studies Center, UCLA.
- Williamson, Kay. 1966. "The status of /e/ in Onitsha Igbo." *Journal of West African Studies*. 3:67-69.
- Williamson, Kay (ed.). 1968. *An Introduction to Ika and Ukwuani*. Ibadan: University of Ibadan.
- Williamson, Kay (ed.). 1972. *English-Igbo Dictionary*. Benin-City: Ethiope Publishing Co.





## PUBLICATIONS RECEIVED

Daniel Barreteau and Robert Hedinger (directors). *Description de langues camerounaises*. Collection DELAN: Description systématique des langues nationales. Paris: ACCT-ORSTOM, 1989. Pp. xii, 408. 45 FF.

This is a collection of papers resulting from a workshop in Yaoundé in 1986 on the theme "Linguistic description: French methodology". The volume contains nine descriptive studies covering two Chadic languages (Podoko and Zulgo), two Grassfields languages (Yemba and Mundani), and three Narrow Bantu languages (Nugunu, Duala, and Koozime). The papers in the volume are "La relative en zulgo" by Beat Haller, "Esquisse grammaticale du podoko" by Elizabeth Jarvis, "Le nom et le syntagme nominal en mundani" by Elizabeth Parker, "Une esquisse phonologique du yemba" by Nancy Haynes, "Les extensions verbales en yemba (bamiléké-dschang)" by Gretchen Harro, "L'emphase en duala" by Cléodor Nseme, "Les extensions verbales en nugunu" by Carol Orwig, "Les temps en nugunu" by Phyllis Gerhardt, and "Les catégories grammaticales en koozime" by Daniel Barreteau and Keith Beavon.

Cassian Braconnier. *Dioula d'Odienné (Parler de Samatiguila): Dictionnaire et études de linguistique descriptive*. Thèse du Doctorat d'Etat, Université de Lille, 1989. On microfiche.

Descriptive study of a dialect of Dyula spoken in the Ivory Coast. The work was received on microfiche.

Denis Creissels. *Aperçu sur les structures phonologiques des langues négro-africaines*. Grenoble: Editions littéraires et linguistiques de l'Université Grenoble 3, 1989. Pp. 287. 95 FF.

[The first paragraph of the Introduction]: "Cet ouvrage sera suivi d'un *Aperçu sur les structures syntaxiques des langues négro-africaines*; il constitue ainsi le premier volet de ce qui voudrait être à la fois un manuel à l'usage des linguistes africanistes débutants et une présentation des structures des langues négro-africaines susceptible d'intéresser des linguistes spécialistes d'autres domaines; il devrait leur permettre de se documenter sur les langues d'Afrique Noire, dans le but d'examiner l'apport que peut constituer la description de ces langues à tel or tel problème de linguistique générale." The Introduction presents some of the main principles of phonological analysis used as guidelines. In particular the author opposes the "surface structure" approach, which organizes phonological units solely on the basis of phonetic contrast in strings of speech, to the "morphophonemic" approach, which recognizes a more abstract level of structure with rules to account for phonetic realizations. The latter is the approach of this work. The Introduction also includes brief sections on transcription and African language classification. The bulk of the book comprises two major parts: "Phonologie segmentale" and "Tonologie". The segmental part has the following sections: "Les systèmes vocaliques", "Les systèmes consonantiques", "L'harmonie

vocalique et le trait d'avancement", "Le fonctionnement de la nasalité", and "Les alternances consonantiques". The tone part has the following sections: "La notion de ton en linguistique africaine", "Les modulations tonales", "Alternances tonales explicables par la notion de ton flottant", "Alternances entre tons ponctuels de valeur opposée", "A propos de la notion de tone moyen", and "Système tonal et grammaire". The book uses prose descriptions and data tables rather than formal notation. The tone part does not use autosegmental notation. Data from 48 different languages is cited.

Zygmunt Frajzyngier (ed.). *Current Progress in Chadic Linguistics. Current Issues in Linguistic Theory*, 62. Amsterdam/Philadelphia: John Benjamins, 1989. Pp. vi, 311. \$54 US.

[From the book announcement]: "This volume consists of papers prepared for the International Symposium of Chadic Linguistics (Boulder, Colorado, May 1-2, 1987). Although the papers are representative of the current work being done in the field of Chadic linguistics, they also reflect the current and past interest and methodologies of general linguistics. The papers included in the volume should therefore be of interest to a general linguist as much as to the Chadicist or a specialist in some other Afroasiatic branch. The papers are grouped by the areas of linguistic fields and methodologies." After an introduction by the editor, the volume contains the following: "Variation in FOCUS constructions" by Laurice Tuller; "Case assignment in Hausa, Kanakuru, and Ngizim" by B.J. Johnson; "Word orders in Gude and the VSO Parameter" by Réjean Canac Marquis; "Complementizers in Hausa" by Gerrit J. Dimmendaal; "An alternative model of word order in Proto-Chadic" by Kemp Williams; "The verbal system of Ader Hausa" by Bernard Caron; "Gender and number in Miya" by Russell G. Schuh; "Origine de l'extension verbale (ə)r(ə) instrumental et connecteur, en Ouldémé: Synchronie dynamique et diachronie" by Véronique de Colombel; "Intonation in Chadic: An overview" by William R. Leben; "Hausa and the prothetic alif" by Carleton Hodge; "Double epenthesis and N-class in Chadic" by Zygmunt Frajzyngier and Robert Koops; "Is Hausa an early or late stage Chadic language?" by Herrmann Jungraithmayr; "Verbal conjugation in Proto-Chadic" by Rainer M. Voigt; and "On semantics of Arabic loan words in Hausa" by Sergio Baldi. The book ends with Indices of topics, languages/dialects, and names.

Herrmann Jungraithmayr. *Lexique mokilko: Mokilko-français et français Mokilko (Guéra, Tchad)*. Sprache und Oralität in Afrika, Frankfurter Studien zur Afrikanistik, 6. Berlin: Dietrich Reimer Verlag, 1990. Pp. 332. no price given.

Mokilko (= Mukulu = Djonkor Guéra) is an East Chadic language spoken in the south-central area of Chad Republic. This dictionary and grammatical sketch culminates work begun in 1973 and continued in several visits to the field by the author and work with native speakers in Germany. The book consists of five main sections: an Introduction consisting of background on the language and a sketch of the phonology and morphology; a Mokilko-French lexicon; a French-Mokilko lexicon; a supplement compiled by Jean-Pierre Caprile of recent Arabic and French loans (with both Mokilko-French and French-Mokilko sections); and five appendices. The introduction lays out Mokilko dialectology, including a map of the area. The phonology is essentially a listing of the segmental and tonal phonology. The morphological sketch covers nouns, adjectives, pronouns, and verbs. The largest section is the Mokilko-French lexicon. No count of head words is given, but a rough estimated would give a number of 3000-4000, making this among the five largest lexicons available for any Chadic language. All items are fully marked to tone and vowel length. Noun and adjective entries include feminine and plural forms and verbal entries include relevant morphological forms as well as pluractional forms. Entries are liberally cross-referenced to other

relevant forms. Some idiomatic expressions are included. The French-Mokilko section is essentially an index to the Mokilko. The section with French and Arabic loans has about 500 entries and is organized along similar lines to the main Mokilko-French and French-Mokilko sections. Appendices are the following: A. Toponymes et Ethnonymes; B. Quartiers et Clans (including a map showing traditional locations of these); C. Saisons et Mois Mokilko; D. Les Divinités (Génies, Esprits, Margais); E. Les Fêtes. The book is nicely produced, probably from computer-produced camera-ready copy.

Roxana Ma Newman. *An English-Hausa Dictionary*. New Haven & London: Yale University Press, 1990. Pp. xxiv, 327. \$30 US.

This is far and away the largest, most accurate, and most informative English-Hausa dictionary to appear to date. Its predecessors have primarily been word lists consisting of English words with one or more Hausa one-word equivalents. This is a true dictionary, including not only the largest vocabulary selection (no word count is given, but it must be between 6000-8000 head items), but grammatical information and Hausa equivalents of many idiomatic English expressions. An introduction explains the layout of the dictionary and the coding system for grammatical features of the Hausa words. The main dictionary of 312 pages consists of the English head items identified by part of speech and, where necessary, information about the particular use of the head word which is being translated into Hausa, e.g. under *bone*, the "general" Hausa word for 'bone' (*kāshii*) is distinguished from the word for *bone of fish*, which is expressed in Hausa by the word generally translated 'thorn' (*kayāa*). Virtually every entry includes examples of usage and English idioms containing the head word, e.g. still under *bone*, the expression *bone of contention* is translated as Hausa *abin gardamāa*. All the Hausa words and expressions are fully marked for tone and vowel length and the "trilled" and "flapped" Hausa *r*'s are distinguished. The accuracy with which entries are marked incorporates the author's experience with the very accurate marking in the *Modern Hausa-English Dictionary*, first published in 1977 by Oxford University Press. There are six appendices. Appendix A gives all the Hausa pronoun paradigms. Of considerable value are Appendices B-E, which list, respectively, Hausa personal names, names of towns and other locations in Niger and Nigeria, Hausa pronunciation of foreign place names, and names of national and international organizations. In all cases, tones and vowel lengths are marked. Appendix F provides nomenclature of the Nigerien and Nigerian currency systems. There are many good bilingual dictionaries working from an African to a European language, but there are very few good ones working from a European language to an African language. Newman's *English-Hausa Dictionary* sets the standard for the latter.

Annarita Puglielli (ed.). *Aspetti dell'espressione artistica in Somalia: Scrittura e letteratura, Strumenti musicali, Ornamenti della persona, Intaglio del legno*. Produced with the collaboration of the Museo Nazionale Preistorico-Etnografico «L. Pigorini». Printed by Bagatto Libri, 1988.

This is a collection of Somali art and ethnography prepared on the occasion of the Third Congress of the International Association of Somali Studies. A Preface by the editor is followed by an Introduction briefly summarizing the history of Somali ethnographic study, including an early map of Somalia and pictures from the 19th and early 20th centuries. A chapter "Scrittura" presents discussion and reproductions of Somali writing prior to the adoption of the Romanized orthography. A chapter "Letteratura" gives examples of Somali poetry, song, and narrative with some analysis and photographs. "Strumenti Musicali" lists the traditional musical instruments of Somalia with many pictures of the instruments and of musicians playing them. "Ornamenti della Persona" consists primarily of photographs of traditional Somali jewelry. "Intaglio del Legno" comprises photographs, some in color, of household utensils and other items of everyday use.

*From Foris Publications*

Paul Newman and Robert (eds.). *Current Approaches to African Linguistics* (vol. 5). Publications in African Languages and Linguistics, 8. Dordrecht: Foris Publications, 1989. Pp. viii, 266. Df. 120,—/\$34.90 US.

Selected papers from the 17th Conference on African Linguistics, Indiana University, April 3-5, 1986. Papers in this volume are as follows: **General** - "On the nominal morphology of 'Alienability' in some African languages" by Ulrike Claudi and Bernd Heine, "Asymmetrical syntax and symmetrical morphology in African languages" by Linda Schwartz; **Afroasiatic** - "Long vowels and diphthongs in Miya and Hausa" by Russell G. Schuh, "Phrases and phrase tones in Hausa" by William R. Leben, Sharon Inkelas, and Mark Cobler, "On the nature of topicalization in Hausa" by Ismail Junaidu, "Final vowels and grammatical marking in Oromo" by Maria-Rosa Lloret, "The copula in Oromo" by Ishetu Kebede, "The case of U in Tigre: towards an extended theory of phonological government" by S. Filipovich and M Tremblay; **Niger-Kordofanian** - "Wh-movement and proper government in Yoruba" by Remi Sonaiya, "Typological mixture in the lexicalization of manner and cause in Emai" by Ronald P. Schaefer, "The extra-high tone of Kisi: just another tone or a new system of prominence?" by Tucker Childs, "Tone and accent in the Xhosa verbal system" by John Goldsmith, Karen Peterson, and Joseph Drogo, "Double object constructions in KiRimi" by José I. Hualde, "Kiswahili agreement for kinship terms" by Rick Treece, "Levels of semantic structuring in Bantu noun classification" by Debra Spitulnik; **Nilo-Saharan** - "Arusa (Maa) Phrasal tonology" by Barbara Levergood; **Creoles** - "An account of the serial verbs in Haitian creole: argument structure coalescence" by Rose-Marie Déchaine, "Topics in Liberian English modality" by John Victor Singler.

Isabelle Haïk and Laurice Tuller (eds.). *Current Approaches to African Linguistics* (vol. 6). Publications in African Languages and Linguistics, 9. Dordrecht: Foris Publications, 1989. Pp. x, 336. Df. 80,—/\$27 US.

Selected papers from the 18th Conference on African Linguistics, Université de Québec à Montréal, April 23-26, 1987. Papers in this volume are as follows: **Phonetics and Phonology** - "(Dé)voisement en Somali Central" by J.P. Angoujard, "Tone in Kinyambo" by Lee S. Bickmore, "Three creole pitch systems" by Hazel Carter, "government and metrical harmony in Pulaar" by Christian Dunn, "Register tone and the phonological representation of downstep" by Sharon Inkelas, "The status of liquids in Kinande" by Negssimo M. Mutaka, "Revernacularisation et détermininismes évolutifs: songhay septentrional et dendi" by Robert Nicolai, "A comparative look at Nguni verbal tone" by Karen Peterson, "Prosodic redistribution in Fula" by Jean-François Prunet, "Toward a metrical analysis of Hausa verse prosody: Mutadaarik" by Russell G. Schuh; **Syntax and Semantics** - "Discourse functions of independent pronouns in Setswana" by Katherine Demuth, "Three kinds of anaphors" by Zygmunt Frajzyngier, "Complex verbs in Mahou and case theory" Isabelle Haïk, "Double object constructions in Kinande and case theory" by José I. Hualde, "The anaphoric system and Kinande" by Fusa Katada, "Change in tense and aspect: evidence from Northeast Coast Bantu languages" by Derek Nurse, "Head-internal relatives and parasitic gaps in Mooré" by C. Tellier, "AGR-drop and VP focus-fronting in Hausa" by Laurice Tuller.

From Carl Winter Universitäts Verlag

Marcello Lamberti. *Die Nordsomali-Dialekte*, Eine synchronische Beschreibung. *Studia Linguarum Africae Orientalis*, Band 1. Heidelberg: Carl Winter Universitätsverlag, 1988. Pp. 299, 1 map. DM 130,--.

The North-Somali dialects have a great literary tradition, explaining their influence on the national language of Somalia. This book is basically a descriptive grammar of Northern Somali. Following an introduction discussing the classification of Somali and closely related languages, the book contains three major sections: The Phonological System (330 pages), Syntax (20 pages), and Morphology (200 pages).

Eike Haberland & Marcello Lamberti. *Ibaaddo ka-Ba'iso (Culture and Language of the Ba'iso)*. *Studia Linguarum Africae Orientalis*, Band 2. Heidelberg: Carl Winter Universitätsverlag, 1988. Pp. 184, 1 map. DM 160,--.

Ba'iso is a Lowland Cushitic language of southern Ethiopia. This book is based on field notes of the first author collected in the early 1950's. That material consisted of a word list of 500+ words; a few grammatical notes relating to nouns, pronouns, adjectives, numerals, verbs, and particles; and more than 200 short sentences. The present book is organized as follows: An introduction and the first chapter cover aspects of Ba'iso culture by the first author. The remainder, laid out by the second author contains the following chapters: "Classification of the Ba'iso language", "The strata of the Ba'iso language", "Grammatical notes", "A short representation of the phonological development of Ba'iso" ("Consonantal processes" and "Vocalic processes"), "Ba'iso word list" (nearly 100 pages), "Ba'iso sentences", an index, and a list of references on the Ba'iso.

Marcello Lamberti. *Kuliak and Cushitic*, a comparative study. *Studia Linguarum Africae Orientalis*, Band 3. Heidelberg: Carl Winter Universitätsverlag, 1988. Pp. 157, 1 map. DM 85,--.

[From the series' description]: "This study is an attempt to establish the kind of relationship existing between Kuliak and Cushitic. The Kuliak languages are spoken in the Karamoja District of Uganda. They were classified in the past as a part of the Eastern Sudanic sub-family of the Chari-Nile branch within the Nilo-Saharan family ... The Cushitic languages, instead, are prevalently spoken in Ethiopia and traditionally belong to the Afro-Asiatic or Hamito-Semitic language phylum. The author shows and tries to interpret the fact that Kuliak and Cushitic share a not irrelevant part of their lexicon (mainly basic vocabulary), recurrent sound correspondences and a conspicuous number of morphemes of common origin. The conformation of these findings could lead to the upsetting of the established classification of the two language families in question. The author tries to give an answer to this problem."

## **1st International LiCCA Conference** **University of Pretoria, April 5-7, 1991**

LiCCA (Languages in Contact and Conflict in Africa) is an international macro-sociolinguistic research project which aims at a detailed description of the use of languages by each of the anglophone African countries in the most important domains of life such as government and administration, the judiciary system, trade and industry, trade unions and employers' associations, science and technology, education, the churches, the media, sports and leisure, community organizations, family life and peer groups. The purpose of these descriptions is to provide data and insights for the formulation of criteria for language policies in a unitary, non-racial, democratic, and non-sexist perspective.

The first phase of the LiCCA project centers on the use of languages in South Africa. The central goals of the first LiCCA conference will be: (i) Critical evaluation of the LiCCA(SA) report: departure points, aims, methods, quality of the report, research framework, interpretation, conclusions, etc. (ii) Keynote papers on centrally related matters, e.g. language planning (LP) in an African context; LP and nation building (a panel of South Africans and Namibians); LP implementation through dialogue; LP and education in the South African context; LP and statutory matters, e.g. constitutional aspects, Bill of Rights, the role of the courts; language policy scenarios for SA; safeguarding the rights of non-official languages; LP and social (political, economic) change in SA, etc. The keynote papers will be published in a separate volume.

For information, write to

**LiCCA Office**  
**c/o Elma Kock**  
**University of Pretoria**  
**0001 Pretoria**  
**REPUBLIC OF SOUTH AFRICA**

The 1st LiCCA conference will be preceded by a symposium on "Language, Thought, and Culture: A Cognitive Linguistic Perspective" at the University of the Witwatersrand, Johannesburg, April 2-4, 1991 (Organizer, John R. Taylor).

## **Studia Chadica et Hamito-Semitic** **Frankfurt am Main, May 6-8, 1991**

This event is intended to carry on the tradition established by the meetings in Marburg (1979), Hamburg (1981), and Boulder, Colorado (1987).

The subject of the symposium is Chadic as a Hamitosemitic family and the individual languages belonging to it. The organizers would like to see the emphasis in the papers and the discussions placed upon the historical-comparative aspect, be it within Chadic or among Chadic and other Hamitosemitic branches (Berber, Old Egyptian, Semitic, or Cushitic).

For information, write to

**Professur für Afrikanisches Sprachwissenschaften**  
**Ref.: *Tschadsprachensymposion***  
**Johann Wolfgang Goethe-Universität**  
**Praunheimer Landstr. 70**  
**D-6000 Frankfurt am Main 90**  
**GERMANY**

**22nd Annual Conference  
on African Linguistics  
University of Nairobi, July 15-19, 1991**

“We are preparing for the Conference which will run for approximately four days (from 15th to 19th July, 1991). ... We would be grateful if we could have tentative information about attendance, papers to be offered and the possible special sessions as soon as possible, but not later than July 31st 1990.

“Information about accommodation, format for abstracts, and related organizational matters will reach you soon after July 31st deadline.”

For information, write to

**Professor L.N. Omondi, Chair  
22nd ACAL Organizing Committee  
Department of Linguistics and African Languages  
University of Nairobi  
P.O. Box 30197  
Nairobi  
KENYA**



# BOOK SALE!

BEATRICE AND WILLIAM E. WELMERS

## IGBO: A LEARNER'S DICTIONARY

and

## IGBO: A LEARNER'S MANUAL

The Welmers and Welmers Igbo books, originally published in 1968, were written as pedagogical texts for learners of Igbo, but they serve as general reference books on "Central Igbo" as well. The dictionary has both Igbo-English and English-Igbo sections. Entries in the Igbo section are alphabetized by initial root consonant rather than by prefix. The learner's manual has extensive information on syntax and in particular, on tonal alternations, which play a central part in the syntax.

The books are now being offered at the very special price of \$3.00 each. The two Igbo books can be purchased as a set at the greater bargain of \$5.00 for the two. Also now available for \$15.00 is a set of eight cassette tapes to accompany the manual.

Use the order blank below or a facsimile. Prepayment in US dollars is required. Send orders to

**African Books  
Department of Linguistics  
UCLA  
Los Angeles, CA 90024-1543  
USA**

.....  
Please send me

\_\_\_ copies of *Igbo: A Learner's Dictionary* @ \$3.00 each \_\_\_\_\_

\_\_\_ copies of *Igbo: A Learner's Manual* @ \$3.00 each \_\_\_\_\_

\_\_\_ sets of the two Igbo books @ \$5.00 per set \_\_\_\_\_

\_\_\_ sets of cassette tapes for the *Learner's Manual* @ \$15.00 per set \_\_\_\_\_

Book rate postage (surface): \$2.00 for each book or cassette set ordered \_\_\_\_\_

Overseas air mail postage: \$8.00 for each book or cassette set ordered \_\_\_\_\_

**TOTAL ENCLOSED** \_\_\_\_\_

**NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Make checks payable to **Russell G. Schuh**)

**MORE BOOK SALES!!**

LAURA F. MEYERS

**"GANI YA FI JI"  
ASPECTS OF HAUSA TONE**

This dissertation, published in 1976 as UCLA Working Papers in Phonetics #32, is an instrumental study of consonantal and syntactic effects on tones and of non-phonemic tone perturbations. It has been widely cited and remains the most complete study of its kind.

Originally priced at \$7.50, it has been reduced for inventory reduction to \$3.00, postage paid!

For this book and for other information on the Working Papers in Phonetics series, write to

Working Papers in Phonetics  
Phonetics Laboratory  
Linguistics Department  
UCLA  
Los Angeles, CA 90024  
USA

-----  
Please send me

\_\_\_ copies of Meyer's Aspects of Hausa Tone @ \$3.00/copy

TOTAL ENCLOSED: \_\_\_\_\_

(Prepayment in US dollars must accompany all orders; make checks payable to "The Regents of the University of California".)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## GUIDELINES FOR CONTRIBUTORS

*Studies in African Linguistics* publishes articles in which the primary data come from African languages. Articles may be descriptive statements or may address theoretical issues.

**Manuscript preparation:** Material should be typed, double-spaced, and submitted in duplicate (please retain a copy for yourself). See below for information on submissions on magnetic disk.

**References:** Include a bibliography listing *all* and *only* those references explicitly cited in the article. For each reference, include (a) *full* name of author(s); (b) date of publication; (c) for books, place of publication *and* name of publisher; (d) for articles, volume number for journals and *page numbers* for both journal articles and papers in collections. When citing references in the text, give only the last name of the author(s) followed by the date of publication in parentheses, e.g. Welmers (1968). Do *not* use footnotes for simple citation of references.

**Organization of text:** If manuscripts are divided into sections, use numbering on the following model:

1. (Major heading)
  - 1.1. (Sub-heading)
  - 1.2. (Sub-heading)
    - 1.2.1. (Second level sub-heading)
    - 1.2.2. (Second level sub-heading)
2. (Major heading)

Please supply a written title for headings and sub-headings at *all* levels.

**Footnotes:** Footnotes should be numbered consecutively and typed, double-spaced on pages at the end of the paper. Use footnotes only for substantive information. Do *not* use footnotes for simple citations.

**Examples:** Examples should be numbered consecutively throughout the text. "Sub-examples" should be referred to by lower case letters, e.g. (1) a., b., etc.

**Abstract:** Include an abstract of 100-125 words summarizing the article.

**Submission on disk:** Beginning with Volume 20, 1989, *Studies in African Linguistics* will be produced on a Macintosh computer using Microsoft Word® version 4.0. For initial submission, we require paper copies as described under **Manuscript Preparation** above. Contributors should send disks only after acceptance of manuscripts and incorporation of revisions. We currently can process files prepared using Microsoft Word® (any version), MacWrite, or pure ASCII files formatted for the Macintosh. We can also process files in MS-DOS format (5.25" or 3.5" disks) produced using Microsoft Word® or pure ASCII files. (We may, in future, be able to accept other formats such as WordPerfect, WordStar, etc. In the meantime, documents produced with these systems should be converted to pure ASCII files.)

Manuscripts other than short notes will be reviewed by at least one referee other than the Editor. Authors of full articles which are accepted for publication will receive 25 free offprints. Manuscripts, whether accepted or not, cannot be returned without a prepaid, self-addressed envelope.

# Studies in African Linguistics

Volume 20, Number 2  
August 1989

## Table of Contents

### Articles

Moira Chimombo and Al Mtenje, <b>Interaction of Tone, Syntax and Semantics in the Acquisition of Chichewa Negation</b>	103
Meterwa A. Ourso, <b>Phonological Processes in the Noun Class System of Lama</b>	151
Bertram A. Okolo, <b>Silence and Ritual Response in Igbo Discourse</b>	179
Ambrose Adikamkwu Monye, <b>A Re-examination of the 9th Vowel Phoneme in Igbo</b>	201
<b>Publications received</b>	217
<b>Conference Announcements</b>	222
<b>Advertising</b>	225
<b>Guidelines for contributors</b>	inside back cover