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EDITOR'S NOTE

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REVIEWS

ON PHONOLOGICAL RECONSTRUCTION:
'WEIL DIE SCHRIFT IMMER STREBT ...'

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For James W. Marchand
on his 70th birthday, 11 November 1996

Recent treatments of umlaut in the Germanic languages by adherents of the generative school deny the validity of the American structuralist explanation of this phenomenon, according to which original allophonic variants developed into phonemic contrasts. The generativists claim to 'take the orthography [of medieval manuscripts] seriously', whereby a lack of written designation is taken to indicate the absence of phonological differentiation. I attempt to show that such studies cannot claim to deal with phonology, but are strictly orthographic analyses.

0. Introduction

The early years of the 19th century were certainly exciting ones for the pioneers in the newly developing science of historical linguistics, and particularly in historical Germanic linguistics.[*] Some of us are familiar with the relationship between Jacob Grimm and Rasmus Rask in this fledgling science, although the profound influence that Rask had on Grimm is sometimes obscured by later investigators (see Antonsen 1962, and Robins 1990:189). One thing they both had in common, something that was simply a sign of the age in which they worked: they took the view that they were dealing with *Buchstaben* or *Bogstaver* 'letters', and they wrote about the relationship among letters and of the change of one letter to another. It was not an easy thing to overcome, and those of us who have taught beginning linguistics courses are familiar with the difficulty naive students (and sometimes even more sophisticated ones) have in distinguishing between the written symbol, on the one hand, and the phonological reality behind it, on the other. Through the combined efforts of the 19th-century phoneticians and the Neogrammarians the fundamental distinction between sound and letter was clarified to a large extent (cf. Pedersen 1962:303-310), but even so, the confusion between the two has remained a stumbling block in historical Germanic research right up to the present day, since scholars in our field still are not agreed on the nature of the relationship between writing and phonology.

In more recent discussions of the phenomenon of umlaut in the Germanic languages, some scholars have declared their firm intention to 'take the orthography seriously' (e.g., Voyles 1976:1). Voyles (1976:2) assumes 'the orthography of these texts — as indeed of the OHG literary monuments in general — accurately reflects the phonology of the language', which is to be taken to mean that the lack

of an explicit designation in the writing system is to be equated with the absence of a given phonological feature. It is basically this problem that I would like to address, along with some related questions that have interested me over the years and deserve more attention than they have received in the past.

1. The discovery of the 'cause' of umlaut

It is an established fact that the one fundamental discovery concerning Germanic umlaut was made by Rasmus Rask in his *Vejledning til det Islandske eller gamle Nordiske Sprog* [Guide to the Icelandic or Old Nordic Language] (1811: 44-45) when he proposed that the varying vowels in the root syllable of a paradigm like Icelandic *hönd* 'hand' (see Table 1) were dependent on the nature of the VOWEL THAT FOLLOWED, OR THAT HAD ONCE FOLLOWED, the root syllable, so that the *ö* of the nominative and accusative forms was dependent on a formerly present *-u* in the following syllable (as could be confirmed by the presence of such a vowel in Go. *handus* and *handu*), while the *a* of the genitive was dependent on the *-a* of its suffix, and the *e* of the dative on the following *-i*.

Sg.	nom.	*hönd*	(cf. Gothic *handus*)
	gen.	*handar*	
	dat.	*hendi*	
	acc.	*hönd*	(cf. Gothic *handu*)

Table 1.

It took considerable time for Jacob Grimm to become convinced of the correctness of this analysis by Rask, but eventually he came to embrace it as his own in the second edition of the first volume of his *Deutsche Grammatik* [German(ic) Grammar] (1822:1².169), which he had thoroughly revised after reading Rask's works and before publishing the further volumes. This discovery by Rask was, of course, merely the beginning of a long and arduous search to unveil the secrets of that vocalic phenomenon so characteristic of Germanic. In a number of instances, this search for an understanding of umlaut was actually impeded by theories that were advanced by Jacob Grimm and subsequently accepted by the scholarly community for years to come. I do not mean to rave against Jacob Grimm, who is one of my true heroes (I am reminded of the remark attributed to Niels Bohr: 'I do not mean to be critical, but this is sheer nonsense'). It is necessary to put things into perspective, however, and although we must understand the limitations imposed by his times, in some respects Grimm failed to see clearly where others nevertheless did. An example of this failing can be found by comparing the work of Georg Friedrich Benecke (1813:169), Grimm's close collaborator, who saw a definite relationship between the umlauted vowels and the ending *-e* of Middle High German forms like those in Table 2. At first, Jacob Grimm vigorously denied that there could be any connection between the umlauted vowel and the suffix.

MHG	Sg.	nom.	*kraft* 'power'	*nôt* 'need'	*brust* 'breast'
		gen.	*krefte*	*næte*	*brüste*
		dat.	*krefte*	*næte*	*brüste*
		acc.	*kraft*	*nôt*	*brust*
	Pl.	nom.	*krefte*	*næte*	*brüste*
		gen.	*krefte*	*næte*	*brüste*
		dat.	*kreften*	*næten*	*brüsten*
		acc.	*krefte*	*næte*	*brüste*

Table 2.

And thus we come to the subtitle of this paper. It is taken from a remark made by Jacob Grimm in a letter to his friend Benecke, dated 5 July 1818. He was discussing instances in which Old High German sometimes displays the letter *e* as the result of mutation, while at other times, under apparently the same conditions, it displays an *a*, as for example in *gesti* 'guests', the plural of *gast* 'guest', on the one hand, compared to *mahti* 'powers', the plural of *maht* 'power', on the other. This apparent anomaly led Grimm (see W. Müller 1889:95) to remark:

> Ist dies nun ein Schwanken zwischen Umlauten und Nichtaus-
> drücken des (dennoch ausgesprochenen) Umlautes? Ich bezweifle
> letzteres, weil DIE SCHRIFT IMMER STREBT SO ZU SCHREIBEN,
> WIE MAN SPRICHT und hier war das Zeichen (nämlich das *e*) bei
> der Hand. [Emphasis mine]

> [Is this, then, a vacillation between umlauting and nonexpression of
> the (nevertheless pronounced) umlaut? I doubt the latter, because
> WRITING ALWAYS STRIVES TO WRITE AS ONE SPEAKS, and here
> the symbol (namely the *e*) was at hand.]

Herein lies the rub, and this is a problem that Germanic scholarship has been wrestling with ever since: Did the Germans (i.e., the Germanic peoples) always show a tendency to write as they spoke? Could the writing system have failed to designate differences in sounds? Does 'taking the orthography seriously' mean that there could be no discrepancy between written symbol and PHONETIC identity? It is not my intention to present here a complete history of the investigation of the vowel system of the Germanic languages or even of umlaut, but it might be profitable to discuss certain key developments.

2. The structural approach

While it is true that 19th-century phoneticians and Neogrammarians were able to think about sound-changes and about sounds independently of their written designations (at least to a certain degree), it remained for later generations of structuralists to develop the notion of distinctive sound units, or phonemes, and their accompanying predictable and nondistinctive variants, the allophones. Whether it was Boudoin de Courtenay or someone else who first developed this view of phonological structure, I am not prepared to argue here. In any case, taxonomic phonemics (as this approach has now come to be known) provided a frame-

work for describing diachronic phonological developments in terms of the rise of predictable conditioned variations, which through some type of further development eventually produced distinctive phonological units that previously had not been present or that had displayed a different distribution from that formerly present. This theory was applied to the study of umlaut in the Germanic languages in a pioneering article before the Second World War by W. Freeman Twaddell 1938 and was then further developed by others, particularly Herbert Penzl 1949, after the war. As Keller (1978:160) rightly puts it in *The German Language*, 'It is one of the finest achievements of American linguistics (W. Freeman Twaddell, Herbert Penzl, James W. Marchand, William Moulton and most recently Elmer H. Antonsen) to have provided an explanation that is both comprehensive and logically coherent.' Of course, there were unclear points in the theory that remained for some time before being eventually cleared up, and there are others that still need work. Basically, however, the theory provides us with the framework for understanding the relationship between orthography and the phonological system of ancient languages. After all, the phonemic theory itself has been viewed as a 'technique for reducing languages to writing' (Pike 1947). Nevertheless, in Europe most scholars continue to follow the same paths prepared for them by the Neogrammarians in the 19th century, and in recent times some of our American colleagues seem content to revert to the mysticism of yesteryear.

3. The generative approach

In the late 1950's and early 1960's, as we are all well aware, a new school of thought appeared and came to virtually dominate the linguistic scene: transformational-generative linguistics. In its early years, I was very much taken by many of the views expressed by the generativists. I particularly liked the seeming breaking-asunder of the old barriers between synchronic and diachronic studies, but alas! it turned out in the long run that 'underlying' did not mean 'historically underlying'. Generative phonology produced such outlandish schemes as the attempt to relate 'underlyingly' English *father* and *paternal*, *tooth* and *dental*, or *milk* and *lactic* (Lightner 1983), and it undertook to explain umlaut in PRESENT-DAY German by positing an 'underlying' *-i* in forms like *Wände* 'partitions', *Klöße* 'dumplings', *Sünde* 'sins', but a different underlying vowel in nonumlauted forms like *Gabe* 'gift', *Loze* 'pilot', *Lunge* 'lung'. Particularly disturbing to me was the attempt to introduce rule-reordering, in which morphological restructuring rules, traditionally called analogical leveling, were integrated into a single system with phonological rules, as if there were no difference between these two types of changes.

As I see it, the main problem with attempting to apply generative phonology to diachronic problems lies in the circumstance that in this approach there is no means for determining when one linguistic stage ends and another begins, since the 'underlying' forms upon which the transformations are performed remain the same. Further, a direct consequence of denying the existence of the phoneme is that we cannot explain phonological developments in terms of incipient nondistinctive variations on a predictable scale, and we cannot capture the appearance

of a new phonological system with the rise of new distinctive contrasts. As a result, generative phonologists on the historical scene are reduced to taking LETTERS literally, just as Jacob Grimm did: *a* must represent an [a], *u* must represent [u], etc. Since Old High German represented the word for 'kin' as *kunni*, this form must be interpreted as [kunni], while OHG *warmen* 'to warm, to heat', must be interpreted as [warmen]. Sound changes are taken not to have occurred until they are actually recorded in the manuscripts. Historical investigations get reduced to counting the number of 'umlauted' vowels (meaning orthographically indicated umlauted vowels) and the number of 'unumlauted' vowels (meaning unmarked vowels), and we are presented with such statements as 'In the earliest manuscripts, umlaut is just beginning' or 'umlaut has not yet occurred', reminiscent of investigations done in the 19th and early 20th centuries. Such studies cannot by the wildest imagination be called phonological. They are nothing other than a description of the orthography, with no connection between it and the phonology of the language represented by that orthography. We are thus brought back to dealing with LETTERS.

As our late colleague Herbert Penzl (1995:95; cf. now also Penzl 1996) has pointed out, it is truly a 'hocus-pocus' procedure to deny the assimilatory qualities of umlaut-causing elements while those elements were still historically present in the language in question, and then to turn about and posit a 'deep structure' for a later stage, after the disappearance of the historical causative factors, in order to 'account' for the supposed late 'appearance' of the mutated vowels. This conception of historical linguistics forces us to assume, as Jacob Grimm did in another letter to Benecke in 1816, that umlaut represents a 'retreat' of the vowel of an ending into the root syllable as the unstressed vowel undergoes reduction to a nondescript [ə] or Ø. As he wrote then (see W. Müller 1889:91):

> Der vielbesprochene Umlaut in unserer alten Sprache ist mir nun völlig klar geworden, d.h. ich kann ihn historisch begründen und beweisen. Man braucht sich nur die Frage zu beantworten: wie haben die Feminina *zit* (tempus) *worolt* (mundus) *dad* oder *dat* (facinus) im Genitiv oder jedem andern obliquen Falle? Offenbar bei Otfried, und häufig in der Evang. harmonie etc. etc. *ziti* (temporis) *dati* (facinoris), *worolti* etc. etc. Im 12 u. 13 Jahrh. verschwand das *i* der Endung, (wurde zum *e*) und TRAT GEWISZERMASZEN IN DEN WURZELVOKAL ZURÜCK, der nun umlautete, oder richtiger umlauten konnte. Dieselbe Erscheinung ist beim *i* des Verbum. *dati* heißt fecisti (oder auch facerem/t) *wari* fuisti (oder auch forem/t). Bei den Minnesingern lauten diese Formen: *wäre*, *täte* oder *were*, *tete*. [Emphasis mine.]

> [The much-discussed umlaut in our old language has now become completely clear to me, i.e., I can explain it and prove it historically. One need only ask himself the question: how did the feminines *zit* 'tempus', *worolt* 'mundus', *dad* or *dat* 'facinus' [appear] in the genitive or any other oblique case? Plainly in Otfried, and often in the *Evang[elische] Harmonie* , etc., etc., *ziti* 'temporis', *dati* 'facinoris', *worolti* etc., etc. In the 12th and 13th centuries the *i* of the ending disappeared (became *e*) and RETREATED SO-

TO-SPEAK INTO THE ROOT VOWEL, which now umlauted, or more properly, could umlaut. The same phenomenon is [found] in the verb. *dati* means 'fecisti' (or also 'facerem/t') *wari* 'fuisti' (or also 'forem/t'). In the Minnesingers these forms are: *wäre*, *täte* or *were*, *tete*.]

As we see, Grimm has introduced here the idea that umlaut is a retreat of the quality of the vowel of the ending into the root syllable, which is perhaps merely another way of designating a progressive assimilation, but he muddied the waters for years to come by assuming that this 'retreat' occurred SIMULTANEOUSLY with the reduction of the causative factor. This is the state at which we find most German historical linguists and also the generativists in the present day. This notion of the simultaneity of the umlaut assimilation with the reduction of the following vowel was not present in Rask's formulation, where it is clearly implied that the assimilation occurred while the causing vowel was still present, and that that vowel may disappear later.

4. Changes in orthography

If umlaut is an assimilation of a root vowel to the point of articulation of a following vowel or semivowel (and all the evidence in the surviving Germanic languages points to this as the only conceivable conclusion), then it is clear that this assimilation had to take place while the following vowel or semivowel was still present and still had its original distinctive features, to which the root vowel could have accommodated itself. In other words, the umlaut assimilation had to occur before the reduction of the inducing elements. If this is true, then the assimilation would have been a predictable, nondistinctive feature until some further development converted the allophone into a distinctive unit. Here, I must point out that the structuralists, the so-called taxonomic phonemicists, had difficulties of their own making because they (and their opponents) sometimes assumed that upon the rise of a new phoneme, the writing system must necessarily devise a new designation for this phoneme. Some structuralists also were very rigid in their insistance that 'once a phoneme, always a phoneme', which robbed them of the flexibility needed to deal with the actual situations they confronted in the writing traditions under investigation.

Let us examine first the question of the need to designate newly arisen phonemes. The entire history of writing presents us with examples of the fact that once a writing system has become established, it assumes a very conservative character. Each generation learns to write according to the instructions of a preceding generation and follows those instructions slavishly in so far as possible. Only rarely are true writing reforms undertaken by fiat. In the vast majority of cases, changes occur through the accidence of phonological developments that disrupt the original fit between orthography and phonology. A perfect example of this is known to all of us through the late Old High German monophthongization of the diphthong /iü/ *iu* (the *i*-umlaut of PG /eu/, as in *liuti* /liüti/) to late OHG MHG /ǖ/, as in *liute* /lǖtə/ 'people' (see Table 3). Words that were originally spelled with *iu*, the proper designation of the older diphthong, continued to be written with *iu*, but since these words no longer displayed a diphthong, but rather a

monophthong that was identical to the vowel that had arisen from the *i*-umlaut of long /ū/ = /ǖ/, as in the plural of *hût* [hūt] 'hide' = *hûte* [hǖtə] 'hides', writers were no longer capable of maintaining the traditional spellings and made the quite comprehensible mistake of writing *hiute* 'hides', whereby the digraph became a perfectly acceptable designation for the new phoneme. However, it did not become the only permissible spelling. Examples of the old monophthongal spelling (also in place of etymologically correct *iu*) are found side by side with the innovative spelling.

PG /eu/ → OHG /iü/ *iu*, as in /liüti/ *liuti* 'people' →
   lOHG /lǖtə/ *liute* (but also written *lûte*);
PG /ū/ → OHG /ǖ/ *û*, as in /hǖti/ *hûti* 'hides' →
   lOHG /hǖtə/ *hûte* (but also written *hiute*).

Table 3.

Very instructive in this connection, however, is the almost complete indifference of German writers through the centuries to the designation of mutated vowels until the establishment of fixed orthographic norms in the 16th and 17th centuries. A mere glance at the prescriptive teachings of the early German grammarians reveals that they strongly urge the consistent designation of umlauted vowels, e.g., Valentin Ickelsamer in his *Teutsche Grammatica* from 1534: 'Man sollt auch diese drey lautte [i.e., ä, ö, ü] allweg zaichnen/ das mans recht wiste zůlesen [One should always designate these three sounds [i.e., ä, ö, ü], so that one would know how to read them correctly]' (in J. Müller 1882:127). This statement in itself is an incontrovertible indication that there was need for such admonishments because the grammarians' compatriots were ignoring the practice. Even Luther can cheerfully write *sunde* 'sin' with a good conscience, although there can be no doubt whatever that he pronounced the word with /ü/. Furthermore, it is worthy of note that German placenames containing umlauted vowels regularly appear on late medieval and early modern maps without umlaut designations, e.g., *Lubeck*, *Jutland*, but in contemporaneous Scandinavian documents, these same names appear with the appropriate umlaut designations, i.e., *Lybek*, *Jytland* (see Holst 1902). Holst concludes that since Danish words borrowed from Low German as early as 1300 display umlaut (e.g., *dröwæs* < MLG *dröwen* 'to trouble' and *ulykkæ* < MLG *ungelucke* 'misfortune'), mutated vowels must have been fully developed in Middle Low German long before they were designated in the orthography.

Such evidence should suffice to answer the question concerning the presence of umlauted vowels in spite of a lack of special designations for them and to counter Voyles's (1981:114) contention that 'the extreme empiricism and concomitant superficiality inherent in the structuralist approach make it necessary to posit the actual occurrence of such vowels when the data available indicate that none were in fact present.' (It would seem from this section of Voyles's treatise that he is unclear concerning the relationship among the concepts 'phonemic', 'subphonemic', 'phonetic', and 'neutralized contrasts', and therefore his argumentation concerning writing practices bears little weight.)

5. The effects of leveling

There is still more that could be put forth. In weak verbs of the first class, it is the norm to find umlauted vowels throughout the present tense. This is, of course, a reflex of the former presence of the suffix *-j-* in this class. However, in our very oldest Old High German texts, the suffix *-ja-* has already become *-e-*, e.g., *warmen* 'to heat', *suochen* 'to seek', *wurken* 'to wreak', and there is no longer any causative factor to bring about umlauted vowels in these forms at this or a later date. There is also no basis whatever to posit some special power on the part of 'certain' *-e*'s in Old High German (or later) to cause umlaut. The only conclusion one can draw is that the umlaut assimilation had already occurred in these forms before the reduction of the *-j-*, and that forms like OHG *warmen*, *suochen*, *wurken* were phonologically /wärmen, süöchen, würken/ (we will come back to these). One might ask whether this argumentation nullifies the assumption that the um-lauted vowels arose as allophonic variants? Not in the least, since we cannot assume, as Voyles (1976:3) does, that the oldest texts available to us 'stand at the beginning of the German orthographic tradition. Hence there is no possibility for historical or canonical spellings as is the case in the orthographic practices of languages like Modern English, Hebrew, or French.' Voyles's assumption is no more than a pious wish, with no evidence to support it, save the absence of still older German texts in the Latin alphabet. However, even if we were to accept his ad-hoc assumption that these texts accurately reflect the PHONOLOGY (but cer-tainly not the PHONETICS) of the language, we would still have to ask how the or-thography fits the phonology, and that is the essential question. All of our exper-ience with alphabetic writing teaches us that phonological contrasts can be desig-nated in various ways. Danish finds it perfectly adequate to use <g> to represent either [j] or [ʌ] in words like *bog* [boːʼw] 'book' but *bøger* [bøːʼjʌ] 'books', in which the nature of the glide is dependent on the nature of the preceding vowel; English is adequately served by *hat* /hæt/ versus *hate* /heɪ/; and German by *Hüte* /hytə/ 'hats' versus *Hütte* /hytə/ 'huts'. We must not forget that in early Old High German there was in practice no actual need for umlaut designations. Every form with an umlauted vowel was followed by an *-i*, which served as sufficient indica-tion of the quality of the preceding vowel (just like the function of silent *-e* in English words like *hate*, *dole*, etc.), as in Table 4.

OHG	*mahti*	=	/mähti/ 'powers'
	kunni	=	/künni/ 'kin'
	luhhir ~ lohhir	=	/lühhir ~ löhhir/ 'holes'
	gâbi	=	/gābi/ 'you (sg.) gave'
	scôni	=	/skȫni/ 'beautiful'
	suochit	=	/süöchit/ 'seeks'
	troumit	=	/tröümit/ 'dreams'

Table 4.

The only exception to this rule is to be found among the weak verbs of class I men-tioned above, and the *ja*-stem nouns and adjectives, but here again the class-spe-

cific suffix *-e-* (in contrast to *-ô*, *-ê*, and *-a* in classes II, III, and the strong verbs) was sufficient to denote a morphological category that ALWAYS displayed an umlauted vowel. In other words, this *-e-* was an INDICATOR, although NOT an UM-LAUT-CAUSING factor. In this respect then, one could well claim that the orthography of early Old High German documents adequately reflects the phonology of the language, since it was in all cases superfluous to have a special designation for the umlauted vowels. Their presence was clearly indicated by the given orthographic factors, which had developed from an original allophonic variation. Such an explanation does away with any necessity for assuming that scribes wrote phonetically, and reaffirms Moulton's (1961:26) categorical statement:

> ... unsere Erfahrung mit Orthographien im allgemeinen erlaubt uns, eine ganz feste Regel aufzustellen: In einer normalen Orthographie ... werden die Allophone ein und desselben Phonems nie und nimmer schriftlich unterschieden. Der Grund dafür ist leicht zu finden: der normale Sprecher ist sich der Allophone seiner Muttersprache einfach nicht bewußt, und was er nicht bewußt hört, schreibt er nicht.

> [... our experience with orthographies in general permits us to establish a very firm rule: In a normal orthography ... the allophones of one and the same phoneme are never, ever distinguished in writing. The reason for this is easy to find: the normal speaker is simply not aware of the allophones of his mother tongue, and what he does not consciously hear, he does not write.]

It also confirms Marchand's (1970:112) pronouncement that 'das Alphabet des Wulfila [verzeichnet] unterphonemische Varianten nicht [Wulfila's alphabet does not designate subphonemic variants].' It is important to note, however, that in discussing the umlauted vowels in Old High German, we are no longer dealing with strictly subphonemic allophones, but with newly developed phonemes that occur most often in neutralizing environments (e.g., *mahti*), and where this is not true (wherever */-ja/ has become /-e/, e.g. *troumen*), there is still a sufficient morphological/orthographic indicator of a class that regularly has umlauted vowels.

6. System balance

The rigid view of the structuralists, 'once a phoneme, always a phoneme', caused considerable distress and unnecessary squirming on their own part, since it made it very difficult for them to explain such anomalies as the APPARENT DESIGNATION OF ALLOPHONES in forms like runic ᚺᛟᚱᚾᛁᛏ **horna** 'horn' (but ᛗᛟᚺᛏᚱᛁᚤ **dohtriz** 'daughters'), or OE *meodu* (beside *medu*) 'mead', in which the conditioning element was still present. In the case of the runic forms with **o**, the phonemic status of the vowel before the retained conditioning factor is clear not only from its designation by ᛟ, but also from the fact that this vowel has been introduced into an environment where it could not have arisen phonologically, i.e., before /-i/ in **dohtriz**, which can only be the result of analogical leveling (i.e., morphological restructuring), which in turn only occurs with phonemes. It is quite true that short/lax /o/ in Germanic can derive in phonologically regular fashion only from an earlier short/lax /u/. Its phonemicization cannot be due to the

loss of the conditioning factor, as usually maintained, but must be ascribed to 'system balance', as proposed by Jerzy Kuryłowicz (1952), since the conditioning factor is still present in ᚺᛉᚱᛏᛁ. We have many other instances of phonemicization through system balance, i.e., through rearrangements in the phonological system, as in Old English (Antonsen 1967), Scandinavian (Antonsen 1970), and Gothic (D'Alquin 1967).

Some of us may remember the lively debates of the 1950's concerning the possibility of allophones' being designated in an alphabetic script. Here, we have a rare instance in which I will gladly admit that generativists have contributed something to our understanding of historical phonology. Old English forms like *meodu* vs. *medu* are often held to represent two different dialects, i.e., that they are not only orthographically distinct, but also phonologically distinct. I doubt very much whether either is true, particularly since such spellings can alternate in the same manuscript. What we are dealing with here are simply two different spelling variants, one (i.e., *meodu*) based on a taxonomic phonemic type of analysis, according to which 'once a phoneme, always a phoneme' requires the use of the spelling also found in environments lacking the conditioning factor, and the other (i.e., *medu*) based on a systematic phonemic analysis in which the retained conditioning factor indicates the quality of the preceding vowel. There was undoubtedly no difference in pronunciation, both having contained phonetically a mid back spread root vowel /ɤ/. (A similar explanation for Notker's Law of Initials, often regarded as an example of 'subphonemic' writing, was given by Moulton 1978).

What do we mean by 'system balance'? It is quite simply the presence of exact counterparts in the short/lax and long/tense vowel subsystems, so that each pair in the two subsystems share all features with the exception of short/lax and long/tense. This is precisely what happened with runic o. In late Proto-Germanic when the umlaut allophones arose, the new lower allophone [o] of /u/ by *a*-umlaut had no counterpart in the long/tense vowel system, which contained no mid vowels, but only high and low vowels, as in Table 5.

		Spread		Rounded	Spread	Rounded
PG	High	/i/		/u/	/ī/	/ū/
	Mid	/e/		[o]		
	Low		/a/		/ǣ/	/ō/

Table 5.

In the further development to Northwest Germanic (the language of the oldest runic inscriptions), the former long low rounded vowel /ō/of Proto-Germanic was raised to the mid-tongue position /ō/, thereby becoming identifiable with short [o], which now assumed a tenuous status independent of short/lax /u/ by virtue of its association with long/tense /ō/ (see Table 6).

		Spread		Rounded		Spread		Rounded
NwG	High	/i/		/u/		/ī/		/ū/
	Mid	/e/		/o/		/ē²/		/ō/
	Low		/a/				/ā/	

Table 6.

Similar developments can be observed in Old English, in Gothic, and in East Nordic (see Antonsen 1972). We see therefore that the phonemicization of allophones does not always require the reduction or disappearance of the conditioning factor. We can agree with Martinet (1955:169) who points out:

> On se fait probablement une idée un peu trop simpliste et brutale de l'action d'un accent d'intensité. On y voit toujours une force aveugle à laquelle rien ne peut pas résister et qui saccage sans rémission les distinctions morphologiques ou lexicales qui ont le malheur de mettre en cause le vocalisme non-accentué.

> [One probably has too simplistic and brutal a notion of the action of a stress accent. One always sees in it a blind force that nothing can resist and that unceasingly disrupts the morphological or lexical distinctions that have the misfortune of involving the unaccented vocalism.]

To return now to the tribulations of the structuralist (taxonomic) phonemicists. In his earlier studies, Herbert Penzl assumed that umlaut in Old High German was allophonic, since the conditioning factor was still present in most cases. He had some difficulty with the weak verbs of class I, however, which we have already touched upon, because the suffix /-ja/ had already become -e by early Old High German times. He attempted an explanation by assuming that this -e from /-ja/ somehow retained its umlauting power and therefore was still a conditioning factor (Penzl 1949:229). I sought to clear up this matter by pointing out that the presence of umlauted vowels in these forms in later stages of the language must be interpreted as indicating that umlaut was in fact already phonemic in Old High German (Antonsen 1964:190-1).

7. Leveling

A further difficulty was the explanation of umlautless forms of *i*-stems in Old High German, such as OHG *gast*, but OE *giest*, OIc. *gestr* 'guest'; and OHG *brût*, but OE *brýd* 'bride'. Penzl assumed that umlaut occurred where the conditioning factors were present and did not where they were not. In other words, he posited a purely phonological conditioning for umlaut and in so doing was forced to accept the theory that umlaut had arrived late in High German territory, after a regular phonological loss of the stem-formant *-i* in the entire masculine singular and in the feminine nominative and accusative singular of the *i*-stems. This assumption is suspect, however, since there is no phonological motivation for the loss of historical /-i/ in OHG *brût*, Ger. *Braut*, OIc. *brúð*, Dan. *brud* 'bride', OIc.

brúðhlaup 'wedding', but its retention in OE *brýd* 'bride', OHG *brûtigomo*, Ger. *Bräutigam* 'bridegroom', Dan. *bryllup* 'wedding', etc.

By carefully delineating the so-called laws of final syllables, we are able to establish with considerable accuracy the period in which the umlaut assimilations must have arisen. I have done this in previous publications (e.g., Antonsen 1969-70), and I will not try to trace these developments here, but I would like to point out that the absence of mutated forms in Old High German and other Germanic languages in the cases mentioned is not due to regular phonological developments, but rather to a leveling of these *i*-stem nouns in analogy with the consonant-stems.

It usually is maintained that the consonant stems were 'unproductive' and eventually were absorbed by the 'productive' *i*-stems (cf., e.g., Makaev 1963, esp. §§11 and 21). Actually, the situation was just the reverse. The consonant stems developed into a paradigm in which umlauted vowels were regularly produced in the genitive and dative singular of feminine nouns, as in Table 7.

PIE	*/nokt-s/	PG	*/naht-z/	OHG	*naht*	MHG	*naht*
	*/nokt-es/		*/naht-iz/		*nahti*		*nähte*
	*/nokt-y/		*/naht-i/		*nahti*		*nähte*
	*/nokt-m/		*/naht-un/		*naht*		*naht*

Table 7.

We must also keep in mind that originally there was no distinction between masculine and feminine forms in the paradigms of *i*-stems and consonant stems (see Antonsen 1969-70).

8. Supposed 'constraints' on umlaut

There remains one more side to the umlaut question that I would like to touch upon, and that is the much-touted 'Umlautfeindlichkeit des Oberdeutschen [Upper German hostility toward umlaut]'. When one scrutinizes the forms that are listed under the supposed umlaut-hindering consonants, it becomes readily apparent that the words given there belong to very specific morphological categories, all of which are subject to morphological restructuring (contrary to Iversen, Davis, & Salmons 1994). I will not attempt to mention them all here, since I have pointed them out elsewhere (e.g., Antonsen 1969), but let us just take the examples of *um* 'about' and of *suchen* 'to seek' and *drucken* 'to press', which are typical South German forms. By their very nature, these forms are all candidates for paradigmatic leveling. The original Germanic adverb/preposition OHG, OS *umbi* occurred in sentence-stressed and unstressed position, as is true of all such pairs. In the adverb, the root vowel was stressed and therefore subject to umlaut assimilation, which resulted in the form OHG, OS /ümbi/, generalized in the North as Low German /üm/, while the preposition, an unstressed clitic, did not undergo umlaut (which was restricted to stressed syllables), and this form, OHG OS /umbi/, was generalized in the South as NHG /um/. The situation is entirely analogous to that of pronouns like /þū ~ þu/ in stressed and unstressed usage, producing English *thou*, but German *du* (but Hessian *dau*!). Like their North German coun-

terparts *söken* and *drücken*, South German *suchen* and *drucken* have undergone leveling to remove the vowel alternation originally present in these weak verbs of class I: in the South in favor of the unmutated vowel of the past tense and inflected past participle, in the North in favor of the mutated vowel of the present tense and uninflected past participle. Absolute proof that the appropriate forms at one time had mutated vowels in the South is to be found in the studies by Hotzenköcherle 1956 for High Alemannic and Kranzmayer 1956 for far-South Austro-Bavarian enclaves, where the most conservative dialects display umlauted vowels in precisely those positions in which they can be historically predicted.

Why these important studies have been almost totally ignored by scholars in Germanic linguistics is beyond my comprehension, but then I am not able to understand why scholars have been so eager to seek special explanations for umlaut phenomena in each individual Germanic language, rather than to develop a broader comprehensive view as demanded by the nature of the problem (cf. now Penzl 1996:96, who questions my contention that all umlaut phenomena are traceable to a single phonetic tendency that arose in the late Proto-Germanic period).

NOTE

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CORRESPONDENCE EFFECTS IN SISWATI REDUPLICATION*

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In SiSwati, the basic pattern of verb reduplication (RED1) is for the first two syllables of the stem to copy (e.g., *u-ya-bongisa → u-ya-<u>bongi</u>-bongisa* 'you make someone thank'). However, an /a/-final reduplicant (RED2) occurs as an optional pronunciation for stems whose second vowel is part of a derivational suffix (e.g., *u-ya-bong-el-a → u-ya-<u>bonga</u>-bongela* 'you congratulate'). And RED2 is required when the second vowel of the stem is an inflectional, rather than a derivational, suffix (e.g., *bá-bik-íle → bá-<u>bíká</u>-bíkíle* 'they have reported'). The unifying generalization is that RED2 occurs when the base verb stem has a related underived form that is identical to RED2. I argue in this paper that this generalization is straightforwardly accounted for within Correspondence theory (Kenstowicz, forthcoming; McCarthy & Prince 1995): RED2 is the optimal form of the reduplicant when it minimizes variation in the realization of RED among morphologically related stems.

0. Introduction

In SiSwati, a Bantu language spoken mainly in Swaziland, verb stems may be reduplicated to indicate that the action is done a little or here and there or from time to time. As shown by the data in (1), the basic pattern (RED1) is for the reduplicant to be exactly two syllables long, no matter how long the stem is; it is the leftmost two syllables of the stem that appear in the reduplicant.[1]

(1) SiSwati reduplicated verbs, present tense (Form of verbs: Subj. Prefix-ya-(<u>RED</u>)-Stem; <u>u-</u> 'you sg'; <u>ni-</u> 'you pl'; <u>ya-</u> 'present tense'; <u>-is</u> 'causative'; <u>-el</u> 'benefactive'; <u>-a</u> 'final vowel')

VERB	REDUPLICATED	GLOSS
a. u-ya-dlál-a	u-ya-<u>dlalá</u>-dlala	'you play'
b. ni-ya-dlal-ís-an-a	ni-ya-<u>dlali</u>-dlalísana	'you pl. play w/ea. other'
c. u-ya-tfúts-a	u-ya-<u>tfutsá</u>-tfutsa	'you move (house)'
d. u-ya-tfuts-él-a	u-ya-<u>tfutse</u>-tfutséla	'you move for s.o.'
e. u-ya-lalél-a	u-ya-<u>lale</u>-laléla	'you listen'
f. u-ya-lalel-ísis-a	u-ya-<u>lale</u>-lalelísisa	'you listen carefully'

However, a different form of the verb reduplicant (RED2) is found in some morphological contexts. This form is also exactly two syllables long, but it has a fixed vowel /a/ in the second syllable instead of copying the second stem vowel. One context in which this form is found is as an optional pronunciation for stems that contain derivational suffixes like /-is-/, the causative suffix, and /-el-/, the benefactive suffix, as shown in (2b,c). As shown in (2d), this alternative

pronunciation of the reduplicant is not available for underived stems, where the second stem vowel is part of the verb root instead of part of a derivational suffix as in (2b,c). That is, RED2 is only available for stems of more than two syllables if the stem is transparently derived from a shorter stem.

(2) SiSwati reduplicated verbs, present tense (Form of the verbs is same as (1))

VERB	REDUPLICATED	GLOSS
a. u-ya-bong-a	u-ya-<u>bonga</u>-ɓonga	'you thank'
b. u-ya-bong-is-a	u-ya-<u>bongi</u>-bongisa	'you make s.o. thank'
OR	u-ya-<u>bonga</u>-bongisa	
c. u-ya-bong-el-a	u-ya-<u>bonge</u>-bongela	'you congratulate'
OR	u-ya-<u>bonga</u>-bongela	
BUT		
d. u-ya-khulúm-a	u-ya-<u>khulu</u>-khulúma	'you listen'
	*u-ya-<u>khula</u>-khulúma	

The other context for RED2 is when the second vowel of the stem is an inflectional suffix, like the past perfect /-íle/, subjunctive /-e/ or the negative /-í/, rather than a derivational one. As shown in (3c,d,e), RED2 is, in fact, the required pronunciation in this context.

(3) SiSwati reduplicated verbs, past perfect and negative compared with present (Form of non-present affirmative verbs: SP-Stem-Inflectional suffix; -ile 'past perfect suffix'; <u>ba-</u> '3pl subject'; <u>-í</u> 'negative suffix'; <u>aka-</u> '3sg. present neg. subject'; <u>-e</u> 'subjunctive suffix')

VERB	REDUPLICATED	GLOSS
a. u-ya-bík-a	u-ya-<u>biká</u>-bika	'you report'
b. u-ya-bik-él-a	u-ya-<u>bike</u>-bikéla	'you report to'
OR	u-ya-<u>bika</u>-bikéla	
BUT		
c. bá-bík-íle	bá-<u>bíká</u>-bíkíle	'they have reported'
	*bá-<u>bíkí</u>-bíkíle	
d. aka-bík-i	aka-<u>bika</u>-bíki	's/he is not reporting'
	*aka-<u>biki</u>-bíki	
e. bá-bík-e	ba-<u>biká</u>-biké	'so that they report'
	*ba-<u>biké</u>-biké	

The problems posed by the data in (2) and (3) are, first, how to account for the two different reduplicative patterns and why just these two should be optimal in SiSwati. A further, more crucial, problem is how to account for the morphological constraints on the choice of RED1 vs RED2. A final problem is how to account for the fact that in some contexts only one or the other pattern is possible, while in other contexts both variants are.

In this paper I present an OT analysis of these problems. The analysis is organized as follows. First, I will briefly sketch the principles of OT that are crucial to the analysis. In section 2, I define each template within the theory of OT and argue that the fixed /a/ of the RED2 pattern is best explained by imposing a

morphological constraint on the shape of the reduplicant. Then I account for the variation found in the stems that allow both pronunciations of the reduplicant. In section 3, I argue that longer monomorphemic bases like (2d) cannot take the RED2 pattern because of a correspondence constraint requiring the morphological parse of segments in RED to match the morphological parse of the same segments in the Base. In section 4, I argue that RED2 is the only optimal pattern if the second stem vowel is part of an inflectional suffix, as in (3c), due to the principle of Uniform Exponence (Kenstowicz, forthcoming), which requires minimal variation in the realization of the reduplicant for the same derivational stem. I will also show that appealing to Uniform Exponence allows us to explain why variation in the realization of RED is only found in multimorphemic derivational stems like (2b,c) and (3b).

1 . Theoretical Background

Before presenting the analysis, I shall briefly sketch the crucial constraints of Optimality Theory that will be assumed here. The central proposal of OT is that phonological outputs are not derived by the interaction of ordered rules. Rather, outputs are freely generated and the actual output for any input within a particular language is the one that is most optimal given the ranking of the relevant constraints in that language. While constraints are assumed to be universal, constraint-rankings are language particular, so that interlinguistic variation may be accounted for by ranking the same constraints in different orders. I will also be appealing to constraint reranking to account for the variation within SiSwati in the realization of the reduplicant. These principles are summarized in (4):

(4) **Principles of Optimality Theory** (McCarthy & Prince 1993a,b; 1994; Prince & Smolensky 1993)
   a. *Universality*: UG provides a set Con of constraints that are universal and universally present in all grammars
   b. *Violability*: Constraints are violable, but violation is minimal.
   c. *Ranking*: The constraints of Con are ranked on a language-particular basis; the notion of minimal violation is defined in terms of this ranking. A grammar is a ranking of the constraint set.
   d. *Parallelism*: Best-satisfaction of the constraint hierarchy is computed over the whole hierarchy and the whole candidate set. There is no serial derivation.

Although in principle, outputs can vary infinitely from the inputs they are based on, Correspondence Theory constrains how abstract the relationship between inputs and outputs may be by making it optimal for inputs and outputs to be as similar as possible. The MAX family of correspondence constraints (5a) limits abstractness by requiring every segment of the input to also occur in the output, while the DEP family (5b) requires every segment of the output to occur in the input.

(5) **Correspondence Theory** (constraints on abstractness or faithfulness—McCarthy & Prince 1995)

a. MAX constraint family:

   MAX-BR

   Every segment of the base (B) has a correspondent in the reduplicant (RED).

   MAX-IO

   Every segment of the input has a correspondent in the output. (No deletion.)

b. DEP constraint family:

   DEP-BR

   Every segment of the reduplicant has a correspondent in the base.

   DEP-IO

   Every segment of the output has a correspondent in the input. (No epenthesis.)

And recent work like that of Benua 1996, Buckley 1995 and Kenstowicz (forthcoming) has argued that outputs of morphologically related forms may also be subject to Correspondence constraints, like Uniform Exponence, which require the related outputs to be as similar as possible. In my analysis I crucially argue that the morphological constituency of segments in the base and RED may be required to correspond. I also crucially argue that the REDs of certain types of morphologically related verb stems may be required to correspond with each other.

2. Defining the two SiSwati reduplication 'templates'

2.1. RED1

With this background in mind, I now turn to the analysis of the more general pattern of verbal reduplication, RED1. As shown by the data in (6), in this pattern the Base for reduplication corresponds to the entire verb stem, but only the first two syllables are copied.

(6) More SiSwati reduplicated verbs with RED1 pattern, present tense (Form of verbs: Subj. Prefix-ya-(<u>RED</u>)-Stem; <u>u-</u> 'you sg'; <u>ni-</u> 'you pl'; <u>ya-</u> 'present tense'; <u>-is</u> 'causative'; <u>-el</u> 'benefactive'; <u>-a</u> 'final vowel')

VERB	REDUPLICATED	GLOSS
a. u-ya-landzela	u-ya-<u>landze</u>-landzela	'you follow'
b. ni-ya-landzelana	ni-ya-<u>landze</u>-landzelana	'you pl. follow each other'
c. u-ya-cebula	u-ya-<u>cebu</u>-cebula	'you skin'
d. u-ya-kála	u-ya-<u>kalá</u>-kala	'you weigh'
e. u-ya-kaléla	u-ya-<u>kale</u>-kaléla	'you weigh for'
f. u-ya-bóna	u-ya-<u>boná</u>-bona	'you see'
g. u-ya-bonísa	u-ya-<u>boni</u>-bonísa	'you show'
h. u-ya-futfúmala	u-ya-<u>futfu</u>-futfúmala	'you are getting warm, angry'

The two-syllable size limit on RED1 (shared by RED2) may be accounted for by the constraint in (7a), which defines the reduplicant (RED) as a syllabic trochee. This constraint must outrank MAX (7b) in order for partial reduplication to be optimal. (RED=Foot is, in fact, very highly ranked since it is never violated by any optimal candidate.)

(7) a. **RED=Foot** (adapted from McCarthy & Prince 1993b):
    The left and right edges of RED must coincide, respectively, with the left and right edges of a syllabic trochee.[2]
    OUTRANKS
    b. **MAX B-R**: Every element of the RED has a correspondent in the Base.

The RED includes the first two syllables of the stem due to the undominated constraints in (8a, b) (McCarthy & Prince 1993b, pp 62-63, figs. (110), (111)). The prefixal position of the reduplicant is made optimal by the alignment constraint in (8c):[3]

(8) a. **Contiguity**: RED (R) corresponds to a contiguous substring of Base (B).
    b. **Anchoring**: In R+B, the initial element in R is identical to the initial element in B.
    c. **Align RED (Align**; adapted from McCarthy & Prince 1993a,b):
    Align (RED, R; Stem, L)
    The reduplicant subcategorizes for a following Stem.

Since the RED1 pattern is quite straightforward, I will turn now directly to an analysis of the RED2 pattern.

2.2 RED2

The constraints in (7) and (8) predict that the disyllabic reduplicant should be identical to the first two syllables of the base (in bases of at least two syllables). While this is true for the data cited in (1) and (6) that have the RED1 reduplicant, the data already cited in (2) and (3), above, show SiSwati has a second reduplication pattern (RED2) in which the second vowel of the reduplicant is always /a/, no matter what the second vowel of the base might be. In (9) are cited more examples of this pattern; the RED2 pattern is the only one possible for these stems:

(9) More SiSwati reduplicated verbs with RED2, past perfect, negative and subjunctive (Form of past perfect verbs: SP-(TM-) Stem-inflectional suffix suffix; -ile 'past perfect'; ba- '3pl subject'; -i 'negative suffix'; aka- '3sg. present neg. subject'; -e 'subjunctive suffix'; u- '2sg subject'; -ya- 'present tense/focus marker')

| VERB	REDUPLICATED	GLOSS
a. u-ya-lindz-a	u-ya-<u>lindza</u>-lindza	'you are expecting'
b. ba-líndz-e	ba-<u>lindza</u>-líndzé	'so that they expect'
c. u-ya-hámb-a	u-ya-<u>hambá</u>-hamba	'you are travelling'
d. aka-hámb-i	aka-<u>hamba</u>-hámbi	's/he is not travelling'

e. bá-hamb-íle	bá-<u>hamba</u>-hambíle	'they have travelled'
f. u-ya-dvul-a	u-ya-<u>dvula</u>-dvula	'you are opening'
g. u-dvúl-e	u-<u>dvulá</u>-dvulé	'so that you open'

To account for this pattern we must explain, first, why the second stem vowel does not copy and, second, why the second reduplicant vowel is /a/ rather than some other vowel.

The RED2 pattern is found in other Bantu languages, like KiNande and Kikuyu. Peng's 1991 & 1992 analyses of Kikuyu and Mutaka & Hyman's 1990 analysis of KiNande reduplication each proposes a different account for why the second vowel does not copy. Peng 1992 proposes that the base for reduplication is not the entire morphological stem, but rather the Canonical Root, which he defines as the first [σ.C] sequence in the stem. The Canonical Root is circumscribed from the rest of the stem, and then mapped to the disyllabic reduplicative template, as shown in (10):

(10) Derivation of Kikuyu -heta-hetoka 'pass little by little' (adapted, Peng 1992)
    a. input representation   b. affixing (trochee) and copying
                                 (Canonical Root = [σ.C])
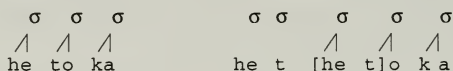
    c. left to right mapping
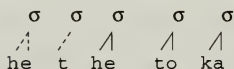
As shown, the second stem vowel is not copied, because it is not part of the base for reduplication defined by the Canonical Root.

In Mutaka & Hyman's 1990 analysis of KiNande, in contrast, the entire stem is the base for reduplication, but only the first [σ.C] may map to the disyllabic template due to the Morpheme Integrity Constraint cited in (11):

(11) **Morpheme Integrity Constraint** (MIC; Mutaka & Hyman 1990; fig. 22)
    Mapping of a melody to a reduplicative template takes place *by mor-*
    pheme. If the whole of a morpheme cannot be successfully mapped into
    the bisyllabic reduplicative template, then none of the morpheme may
    be mapped.

As shown by the derivation in (12), the second stem vowel may not copy in longer stems, because this would always split up a suffixal morpheme (in (12), this morpheme is the benefactive suffix /-ir-/) in violation of the MIC (hyphens indicate morpheme breaks). The unmapped portion of the copied stem deletes by Stray Erasure (Itô 1986):

(12)   Derivation of KiNande <u>-huma-humira</u> 'beat for here and there' (adapted from Mutaka & Hyman 1990; fig. (44))

    a. input representation   b. affixing (trochee) and copying (entire stem)

     σ   σ   σ   σ   σ   σ   σ   σ

     ⋀   ⋀   ⋀   ⋀   ⋀   ⋀

    hu m-i r-a   hum-ir-a hu mi ra

    c. left to right mapping (respects MIC)

   σ σ   σ   σ   σ

   ⋀⋮ ⋰   ⋀   ⋀   ⋀

  hu m-ir-a   hu mi ra

Where Peng's 1992 analysis of Kikuyu and Mutaka & Hyman's analysis of KiNande agree is in the source of the fixed /a/ in the second syllable of the reduplicant, once the [σ.C] sequence has been mapped to the template. Both propose that /a/ is inserted because it is the phonological default vowel. However, as argued in Downing (forthcoming) there is good evidence in both languages against this proposal. It is usually assumed that the epenthetic vowel in a particular language is the phonological default vowel in that language (Archangeli 1984, 1988). So if /a/ were the default vowel for Kikuyu, one would expect it to also be the vowel that is inserted in epenthesis contexts. However, as shown in (13), when English words are borrowed into Kikuyu, /i/ is the vowel that is epenthesized to break up English consonant clusters that may not be parsed by Kikuyu's CV(V) syllable template:

(13)   English words borrowed into Kikuyu ('th' = voiced interdental fricative)
        a. marigiti   'market'
        b. thinoo   'snow'
        c. kirithitia:no 'Christian'
        d. kiraoni   'crown'
        e. gaithimiri   'cashmere'

Likewise, Hyman 1989 notes that /a/ is not the general epenthetic vowel for KiNande. When French words are borrowed into that language, front vowels are usually inserted to syllabify consonants (Kinande, like Kikuyu, only has open syllables):

(14) French words borrowed into KiNande (Larry Hyman, p.c.)
        a. masini   'machine'
        b. kamisere   'magistrate'   (French 'commissaire')
        c. soferi   'chauffeur'
        d. e-sosoti   'sock'   (French 'chaussette')
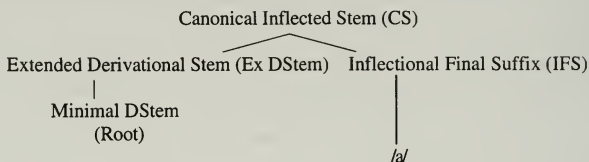   e. olu-supe   'soup'

Kiyomi & Davis 1992 also argue that /i/ is the epenthetic vowel in SiSwati. If the second vowel of the reduplicant is to be filled by epenthesis in these languages,

then /a/ is not predicted to surface in the reduplicant by default, since /a/ is not the usual epenthetic vowel.

If /a/ is not the phonological default vowel in these languages, then some other explanation must be found for the presence of /a/ in the reduplicant. Peng 1991 proposes that the /a/ is phonologically prespecified to fill the second vowel slot in the template. But this implies that the fact that /a/ and not some other vowel occurs in the second syllable is unpredictable and arbitrary. While the occurrence of /a/ is phonologically arbitrary, morphologically /a/ is the unmarked, regular verbal inflectional suffix. Indeed, what is striking about the form of this reduplicant (RED2) is that it resembles a canonical two-syllable Bantu verb stem, ending with the default Final Vowel morpheme /a/. I propose that this resemblance may best be accounted for by defining the Canonical Stem (15) as the template for RED2 in SiSwati (and other Bantu languages that have this reduplication pattern):

(15) **Canonical Stem (RED=CS)**

RED is a Canonical Stem (CS) as defined below (this representation of verb stem structure follows Myers 1987):

<div align="center">

Canonical Inflected Stem (CS)

Extended Derivational Stem (Ex DStem)   Inflectional Final Suffix (IFS)

Minimal DStem
(Root)

/a/
</div>

The representation in (15) is proposed as a morphological well-formedness constraint on the shape of RED. This constraint is satisfied iff (a) the RED is morphologically parsed and contains two constituents, the DStem that minimally dominates the Minimal DStem (Root) but may also dominate optional derivational suffixes, as in (18)) and the Inflectional Final Suffix; and (b) the RED ends in /a/, the morphological default inflectional final suffix. Highly ranked RED=Foot (7a) insures that RED2, like RED1, is optimally two syllables long. What makes RED2 distinct from RED1 is that it must also meet the morphological constraint in (15): it must be assigned the morphological constituency appropriate to verb stems and must contain the regular Final Vowel verb morpheme /a/.[4] Because RED2 is constrained to optimally have a fixed /a/ as the second vowel instead of the second vowel of the Base, it also differs from RED1 in violating DEP-BR:

(16) **DEP-BR (SDEP)**: Every segment of the reduplicant has a correspondent in the base.

For RED2 to be the optimal output, RED=CS (15) must outrank SDEP (16). This will be illustrated in the next section.

To sum up this section, I have shown that the Canonical Stem analysis straightforwardly solves both problems the fixed /a/ pattern raises. The second stem vowel of the base does not occur in the RED, because the second RED vowel

must be identifiable as an Inflectional Final Suffix. The vowel /a/ occurs in the reduplicant because it is the default Inflectional Final Suffix.[5] Neither Peng's 1991 & 1992 nor Mutaka & Hyman's 1990 alternative analyses satisfactorily explain the morphological predictability of /a/. It is also difficult to see how their analyses could predict the morphological contexts in which RED1 vs. RED2 occur in SiSwati. Circumscribing the Canonical Root (σ.C) at the left edge of the stem, as Peng 1992 proposes cannot explain why only stems derived from shorter roots may optionally be circumscribed and take the RED2 pattern in SiSwati while stems derived from longer roots (1e,f; 2d) cannot. Mutaka & Hyman's Morpheme Integrity Constraint does not explain why it is possible for longer underived roots in SiSwati to be partially copied (as in 1e,f; 2d). Nor does it explain why derivational suffixes like /-is-/ and /-el-/ may be partially copied while inflectional suffixes like /-íle/ may not (cf. (3b) and (3c)). Neither proposal explains straightforwardly why there should be just these particular morphological conditions on the choice of RED1 vs. RED2. In the remainder of the paper I show how my analysis derives both reduplication patterns and predicts when they will occur in SiSwati.

2.3 Variation in choice of RED1 vs. RED2

To show how the constraints and rankings motivated so far account for the two reduplication patterns of SiSwati, I shall first present an analysis of stems like those in (17) for which both reduplication patterns are possible and, apparently, occur in free variation:

(17)   SiSwati reduplicated verbs with RED1 & RED2 in free variation; RED1 is cited above RED2 (Form of verbs: Subj. Prefix-ya-(RED)-Stem; u- 'you sg'; ni- 'you pl'; ya- 'present tense'; -is 'causative'; -el 'benefactive'; -a 'final vowel')

VERB	REDUPLICATED	GLOSS
a. u-ya-lindz-el-a	u-ya-<u>lindze</u>-lindzela	'you are waiting for (reason)'
OR	u-ya-<u>lindza</u>-lindzela	
b. u-ya-lindz-is-a	u-ya-<u>lindzi</u>-lindzela	'you are making (s.o.) wait'
OR	u-ya-<u>lindza</u>-lindzela	
c. u-ya-hamb-él-a	u-ya-<u>hambe</u>-hambela	'you are travelling for/to'
OR	u-ya-<u>hamba</u>-hambela	
d. u-ya-hlany-el-a	u-ya-<u>hlanye</u>-hlanyela	'you are unreasonable with'
OR	u-ya-<u>hlanya</u>-hlanyela	
e. u-ya-fundz-is-a	u-ya-<u>fundzi</u>-fundzisa	'you are teaching'
OR	u-ya-<u>fundza</u>-fundzisa	

This free variation is only possible for stems with the structure given in (18), namely, those where the Extended D-Stem obligatorily branches into a Minimal DStem (Root) and at least one derivational suffix, and the second stem vowel is affiliated with a derivational suffix:

(18) Structure of stems with RED1 and RED2 in free variation (structure adapted
Myers 1987)

Inflected Stem (IStem)

Extended Derivational Stem (Ex DStem)   Inflectional Final Suffix (IFS)

Minimal DStem   Derivational Suffix(es)
(Root)   (-is-, -el-, -an-, etc.)

(C)V_1C- V_2C
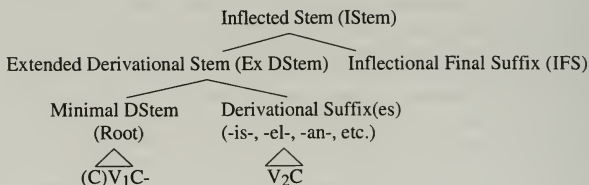
As shown by the tableau in (19), the RED1 pronunciation is optimal if SDEP (16)
outranks RED=CS (15), because then it is non-optimal for the RED to include the
epenthetic fixed /a/ that is required by RED=CS:

(19)[6]

/-lindzela/	RED=Ft	SDEP	RED=CS	MAX
a. √<u>lindze</u>-lindzela	√	√	*	*
b. *<u>lindz+a</u>-lindzela	√	*!	√	*
c. √<u>lindz+e</u>-lindzela	√	√	*	*
d. *<u>lindzel+a</u>-lindzela	*!	√	√	√

Crucial constraint rankings:
RED=Ft >> MAX   makes partial (bisyllabic) RED optimal
SDEP >> RED=CS   makes RED1 optimal in penalizing insertion of /a/
RED=Ft >> RED=CS   no CS longer than 2 syllables is optimal

Notice that both candidates (19a) and (19c) are optimal in this analysis, since both
only violate low-ranked RED=CS, either because no morphological parse is given
to RED, as in (19a) or because the final suffix of RED is not the canonical /a/, as in
(19c). Since they are pronounced identically, though, it does not seem necessary
or even possible to develop a constraint deciding between the two candidates.
What is crucial is that the RED2 pattern exemplified by (19b) is non-optimal when
SDEP outranks RED=CS.

Reversing the ranking of SDEP and RED=CS makes RED2 the optimal
pattern for this same stem, as shown by the tableaux in (20):

(20)

/-lindzela/	RED=Ft	RED=CS	SDEP	MAX
a. √<u>lindz+a</u>-lindzela	√	√	*	*
b. *<u>lindze</u>-lindzela	√	*!	√	*
c. *<u>lindz+e</u>-lindzela	√	*!	√	*
d. *<u>lindzel+a</u>-lindzela	*!	√	√	√

Crucial constraint rankings are same as (19), except:
RED=CS >> SDEP   makes RED2 optimal by favoring the oc-
currence of /a/ to satisfy CS

Only candidate (20a) satisfies both RED=CS and RED=Ft, because it is the only candidate with a RED that is bisyllabic, has an appropriate morphological parse and /a/ as the default final suffix. Candidates (20b) and (20c) have either no morphological parse or an inappropriate final suffix. Candidate (20c) satisfied RED=CS but violates the higher-ranked RED=Foot.

The variation in pronunciation in the stems that have two possible REDs, then, is accounted for by proposing that SDEP and RED=CS have a variable ranking in SiSwati. (It is beyond the scope of this paper to address the theoretical problems raised by variable rankings in OT, but the interested reader will find an insightful discussion of this problem in Nagy 1996 and Nagy & Reynolds 1996.) In the final section, I will show that the principle of Uniform Exponence explains why some stems with the structure in (18) show this variation.

3 . No variation in choice of RED1 vs. RED2: RED1 only

Not all stems have both RED1 and RED2 as variant pronunciations of the reduplicant. For stems like those in (21), only RED1 — simple reduplication of the first two syllables — is possible:

(21)   SiSwati reduplicated verbs with RED1 only; RED1 is cited above *RED2
       (Form of verbs: Subj. Prefix-ya-(<u>RED</u>)-Stem; <u>u-</u> 'you sg'; <u>ya-</u> 'present
       tense'; <u>-is</u> 'causative'; <u>-el</u> 'benefective'; <u>-a</u> 'final vowel')

VERB	REDUPLICATED	GLOSS
a. u-ya-phuphút-s-a	u-ya-<u>phuphu</u>-phuphútsa *u-ya-<u>phupha</u>-phuphútsa	'you are blowing out'
b. u-ya-vivíny-a	u-ya-<u>vivi</u>-vivínya *u-ya-<u>viva</u>-vivínya	'you are testing'
c. u-ya-hliphit-a	u-ya-<u>hliphi</u>-hliphita *u-ya-<u>hlipha</u>-hliphita	'you are scribbling'
d. u-ya-mbombot-a	u-ya-<u>mbombo</u>-mbombota *u-ya-<u>mbomba</u>-mbombota	'you are covering'
e. u-ya-sebént-a	u-ya-<u>sebe</u>-sebénta *u-ya-<u>seba</u>-sebénta	'you are working'
f. u-ya-sebént-is-a	u-ya-<u>sebe</u>-sebéntisa *u-ya-<u>seba</u>-sebéntisa	'you are using'ß

What these stems have in common is that the second stem vowel is affiliated with the root (Minimal DStem), not with a derivational suffix. That is, as shown by the representation in (22), there is no morphological constituent break preceding the second stem vowel of the Base stems:

According to Joyce Sukumane, my SiSwati consultant, the reason why a Canonical Stem RED (RED2) is not possible with stems like those in (21) is that RED2 (by definition) sounds like a possible verb stem. And in the case of stems like those in (17) that take RED2 as a variant, the RED2 contains, in fact, the actual DStem of SiSwati from which the longer stem is derived. As shown by the representation of (17a) given in (23), there is, in these cases, a match between the

morphological parse of segments in the DStem in RED with the segments in the
DStem of the Base:

(22) Structure of stems with RED1 only (structure adapted Myers 1987)

Inflected Stem (IStem)

Extended Derivational Stem (Ex DStem)   Inflectional Final Suffix (IFS)

Minimal DStem   Derivational Suffix(es)
(Root)   (-is-, -el-, -an-, etc.)

(C)V₁CV₂C-   VC
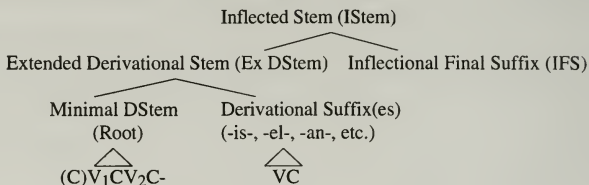
(23) Structure of reduplicated stems (e.g., (17a)) with RED2 variant

RED=CS   IStem (Base)

Ex DStem   IFS   Ex DStem   IFS

Min DStem   /a/   Min DStem   D Suffix |

lindz   lindz   el   a
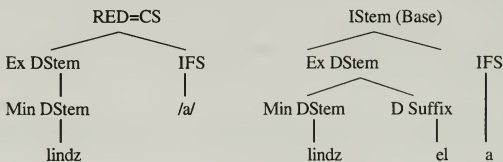
However, in the case of stems like those in (21), the DStem of RED is not an actual
DStem of SiSwati. As shown by the representation of (21f) given in (24), the
impossible RED2 of this stem would have a mismatch between the morphological
parse of segments in RED and the Base. This is because segments that define a
DStem in RED do not alone define a DStem in the Base:

(24) Structure of reduplicated stems (e.g., (21f)) with no RED2 variant

RED=CS   IStem (Base)

Ex DStem   IFS   Ex DStem   IFS

Min DStem   /a/   Min DStem   D Suffix |

*seb   sebent   is   a
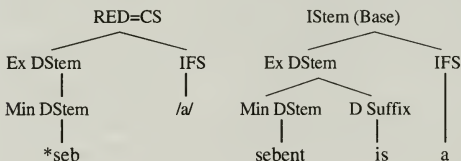
I propose, then, that RED2 is not possible for longer monomorphemic
DStems like those in (21), because of the constraint MDEP in (25) that penalizes
mismatches between the morphological parse of segments in RED and in the Base:

(25) **MDEP**: The DStem of RED corresponds to the DStem of the Base.

This constraint is satisfied iff the DStem of RED contains the same segments as the
DStem of the Base. (No violation of MDEP is incurred if RED is not assigned a
morphological parse.) MDEP (25) must outrank RED=CS in order to disfavor
RED2 when MDEP is violated. This is shown by comparing the tableau in (26)

evaluating the stem in (23) for which RED2 is optimal, with the tableau in (27) evaluating the stem in (24) for which RED2 is nonoptimal:

(26) Evaluative tableau for (23): RED2 (a) is optimal output

/-lindzela/	RED=Ft	MDEP	RED=CS	SDEP	MAX
a. √<u>lindz+a</u>-lindz+ela	√	√	√	*	*
b. *<u>lindze</u>-lindz+ela	√	√	*!	√	*
c. *<u>lindz+e</u>-lindz+ela	√	√	*!	√	*
d. *<u>lindzel+a</u>-lindz+el+a	*!	√	√	√	√

(27) Evaluative tableau for (21): RED2 (b) is non-optimal output

/-sebentisa/	RED=Ft	MDEP	RED=CS	SDEP	MAX
a. √<u>sebe</u>-sebent+is-a	√	√	*	√	*
b. *<u>seb+a</u>-sebent+is-a	√	*!	√	*	*
c. *<u>seb+e</u>-sebent+is-a	√	*!	*	√	*
d. *<u>sebent+a</u>-sebent+is-a	*!	√	√	*	*

Crucial constraint rankings:

RED=Ft >> MAX   makes partial (bisyllabic) RED optimal
RED=Ft >> RED=CS,
              MDEP   no CS longer than 2 syllables is optimal RED
MDEP >> RED=CS   makes RED2 optimal only if DStem of RED
                          matches DStem of Base
RED=CS >> SDEP   makes RED2 optimal by favoring epenthesis
                          of /a/ to satisfy CS

In (26) we see that RED2 (26a) is an optimal pronunciation of the stem, because the DStem of RED contains the same segments as the DStem of the Base. However, in (27), RED2 (27b) is not an optimal pronunciation, because the DStem of RED does not contain the same segments as the DStem of the Base.[7]

Proposing that RED2 has the morphological structure of a verb stem, then, allows us to account for the restriction on the distribution of RED2 by observing that the Canonical Stem defined by RED must be an actual verb stem of SiSwati and morphologically related to the Base. This observation is formalized in the constraint MDEP (25), which optimizes REDs in which the morphological parse of corresponding segments in RED and the Base is identical. Constraints requiring the prosodic constituency of corresponding segments in RED and Base to match are familiar from analyses like Kenstowicz 1994 and McCarthy & Prince 1994, 1995. It is entirely analogous to propose that morphological constituency of RED and Base can be constrained to correspond, given the theory developed here (and in McCarthy & Prince 1994; Urbanczyk 1995) in which RED can be assigned morphological constituency.

4. No variation in choice of RED1 vs. RED2: RED2 only

The other type of SiSwati verb stem that does not allow variation in the shape of RED is one in which the second stem vowel is affiliated with an Inflectional Final Suffix like the past perfect suffix /-íle/, the subjunctive suffix /-e/ or the

negative suffix /-í/ rather than a derivational suffix. As shown by the data in (28d-f), repeated from (3), only RED2 is acceptable for these stems:

(28) SiSwati reduplicated verbs, past perfect and negative compared with present (Form of non-present affirmative verbs: SP-Stem-Inflectional suffix; -<u>ile</u> 'past perfect'; <u>ba-</u> '3pl subject'; <u>-i</u> 'negative suffix'; <u>aka-</u> '3sg. present neg. subject'; <u>-e</u> 'subjunctive suffix')

VERB	REDUPLICATED	GLOSS
a. u-ya-bík-a	u-ya-<u>biká</u>-bika	'you report'
b. u-ya-bik-él-a	u-ya-<u>bike</u>-bikéla	'you report to'
OR	u-ya-<u>bika</u>-bikéla	
c. u-ya-bik-ís-a	u-ya-<u>biki</u>-bikísa	'you make someone report'
OR	u-ya-<u>bika</u>-bikísa	
BUT		
d. bá-bík-íle	bá-<u>bíká</u>-bíkíle	'they have reported'
	*bá-<u>bíkí</u>-bíkíle	
e. aka-bík-i	aka-<u>bika</u>-bíki	's/he is not reporting'
	*aka-<u>biki</u>-bíki	
f. bá-bík-e	ba-<u>biká</u>-biké	'so that they report'
	*ba-<u>biké</u>-biké	

The problem to be solved here is why vowels corresponding to inflectional suffixes may not occur in RED1; only vowels corresponding to derivational suffixes may. The key to understanding this problem lies in adopting the traditional assumption (see, e.g., textbooks like Bauer 1988, Bloomfield 1933, Matthews 1991) that only derivational affixation derives new lexical items (in this case, new DStems). Inflectional affixation, in contrast, derives morphosyntactic variants of the same lexical item (DStem). Given this assumption, the stems in (28d-f) would be considered morpho-syntactic variants of the basic stem in (28a). In contrast, the stems in (28b,c) would be new lexical items, even though they are also derivationally related to the basic stem in (28a). This distinction in the lexical status of derivational vs. inflectional suffixes is, in fact, one of the motivations for the hierarchical structure of Bantu verb stems defended in Myers 1987 and adopted throughout this paper.

If we look again at the data in (28), the generalization that emerges is that REDs of the basic stem in (28a) and its morphosyntactic variants in (28d-f) are identical, while the REDs of the new lexical stems in (28b,c) may differ from the RED of the basic stem in (28a). This generalization can be captured by proposing, following work like Benua 1995, 1996, Buckley 1995, Kenstowicz forthcoming, McCarthy & Prince 1995 and Steriade 1995, that outputs of certain morphologically related words may be required to resemble each other as much as possible.[8] One family of constraints optimizing this sort of output-output correspondence is Uniform Exponence (UE; Kenstowicz, forthcoming). The general formulation of UE is given in (29), and in (30) I give the version of this constraint that I propose applies to SiSwati reduplication:

(29) **Uniform Exponence (UE**; Kenstowicz, forthcoming, fig. (38))
Minimize the differences in the realization of a lexical item (morpheme, stem, affix, word.)

(30) **RED-Stem UE**
Minimize the differences in the realization of RED for each DStem.[9]

The tableau in (31) shows that UE (30), because it is highly ranked, chooses the RED2 realization of the reduplicant in stems like (28d-f) as optimal, even if the ranking of SDEP and RED=CS is the one that normally favors RED1:

(31) Evaluative tableau for (28a, e): RED2 (a) is optimal output (if only one evaluation mark is given, that means that both outputs in each candidate pair have same evaluation)

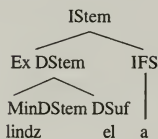| /RED-bik-a/, /RED-bik-i/	UE	RED=Ft	MDEP	SDEP	RED=CS	MAX
a. √<u>bik+a</u>-bik+a, <u>bik+a</u>-bik+i	√	√	√	√, *	√	√, *
b. *<u>bika</u>-bika, <u>biki</u>-biki	*!	√	√	√	*	√
c. *<u>bik+a</u>-bik+a, <u>bik+i</u>-bik+i	*!	√	√	√	√, *	√
d. *<u>biki</u>-bika, <u>biki</u>-biki	√	√	√	*, √	*!	*, √

Crucial constraint rankings:

UE	high ranked because never violated by an optimal candidate
RED=Ft >> MAX	makes partial (bisyllabic) RED optimal
RED=Ft >> RED=CS, MDEP	no CS longer than 2 syllables is optimal RED
MDEP >> RED=CS	makes RED2 optimal only if DStem of RED matches DStem of Base
SDEP >> RED=CS	makes RED1 optimal by penalizing occurrence of /a/ to satisfy CS

As shown in (31), both (31a) and (31d) satisfy Uniform Exponence. However, to do so, both must violate SDEP, the constraint that usually optimizes RED1 outputs with this constraint ranking. This throws the decision to RED=CS, the constraint that favors RED2, making (31a), the candidate pair that contains uniform RED2 outputs, the optimal set.

An unexpected advantage of the Uniform Exponence constraint in (30) is that it also can explain why only multimorphemic DStems have two different possible reduplicants, while other stem types have only one. If we compare the structure of the verbs that allow variation in the RED, given in (32a), with the structure of the verbs that do not (32b, c), we can see why variation is only possible for verbs with the structure in (32a). Recall that the Uniform Exponence constraint (30) optimizes minimal differences between REDs for the same DStem. But the structure in (32a) contains two possible DStems within the bisyllabic window that may appear in RED: the Minimal Dstem and the Extended DStem. Both RED1 and RED2 may satisfy UE (30) for these forms then, because, as shown by the data in (28a-c), RED1 minimizes differences between REDs of the Extended DStem, while RED2 minimizes differences between REDs of the

(32)

(a) RED1 and RED2	(b) RED1 only	(c) RED2 only

```
        IStem                  IStem                  IStem
       /     \                /     \                /     \
  Ex DStem    IFS        Ex DStem    IFS        Ex DStem   IFS
    /    \      |          /    \      |            |        |
MinDStem DSuf            MinDStem DSuf          MinDStem
  lindz   el  a           sebent  is  a           bik       a
```
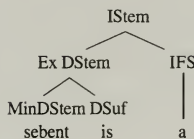
Minimal DStem. In (32b) where only RED1 is optimal, we can see that only the Minimal DStem is within the bisyllabic windo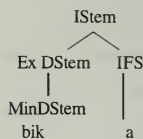w that may occur in RED. And in (32c), where only RED2 is optimal, the Minimal DStem and Extended DStem are identical. As a result, in these two cases, there is no ambiguity about which DStem to choose as a target for Uniform Exponence, and only one form of RED is optimal.

5. Conclusion

In sum, I have argued that the difference between the two reduplication patterns in SiSwati is that one pattern, RED1, only meets a prosodic constraint: it must be a bisyllabic foot. But the other pattern, RED2, must meet a morphological constraint in addition to the prosodic one: it must look like a Canonical Verb Stem. Proposing that RED2 is a morphological constituent, a verb stem, has the advantage of explaining why this template ends in a fixed /a/. While /a/ is phonologically unpredictable and marked in this context, morphologically it is the predictable, regular inflectional final suffix for verb stems.

Proposing that RED2 is a verb stem with internal morphological constituency has the further advantage that it helps explain why some verbs cannot take the RED2 pattern. Since RED2 sounds like a regular verb stem, the expectation is that it should be an actual SiSwati verb stem that is morphologically related to the Base for reduplication. When this expectation fails — that is, when RED2 violates the MDEP correspondence constraint — the RED2 pattern is non-optimal.

Finally, I have appealed to the Uniform Exponence constraint to explain why the RED1 pattern is nonoptimal when the second stem vowel is affiliated with an inflectional suffix. When UE is highly ranked, it optimizes having all REDs of all morphosyntactic variants of a CVC root follow the RED2 pattern. And, as I have shown, the UE has the added benefit of explaining which stems have two variant reduplication patterns. Only when a stem's structure makes the target for UE ambiguous, may both RED1 and RED2 satisfy UE.

NOTES

[1] For considerations of space, the reduplication pattern of only consonant-initial inflected stems at least two syllables long are discussed here. An analysis of the reduplication patterns of monosyllabic and vowel-initial SiSwati stems is found in Downing (1994, forthcoming). The generalizations about the distribution of RED1 and RED2 hold for these stem types as well, and the analysis presented here straightforwardly extends to this data.

[2] Appealing to a syllabic trochee to characterize the shape of the RED captures the generalization that the RED is always exactly two syllables long, and the syllables are quantity insensitive. As one reviewer points out, characterizing RED as a trochee also implies that the initial syllable of RED is the head of the RED. Since the initial syllable of RED corresponds to the root-initial syllable of the base, it is certainly plausible that it is the head of RED, but it is beyond the scope of this paper to pursue the proposal further.

[3] Since the constraints in (8) are seldom violated in reduplicative systems and play no significant role in the analysis presented here, they will not be included in any of the tableaux.

Note also that AlignRED (8c) is more properly formulated to require RED to subcategorize for a following Prosodic Stem. See Downing (1994, forthcoming) for arguments in favor of this formulation.

[4] See Urbanczyk 1995 and McCarthy & Prince 1994 for other analyses in which REDs are morphologically defined constituents.

[5] I am considering /a/ the default or regular Inflectional Final Suffix because, as noted by Benson 1964, Mutaka & Hyman 1990 and Ziervogel & Mabuza 1976, in these languages, as in most Bantu languages, /a/ is the most commonly occurring final vowel morpheme. (See, too, Doke 1943, 1954 concerning the regular shape of Bantu verb stems.)

[6] In all tableaux, only stems are given to save space. REDs are underlined, '+' indicates the morphological parse of RED into Ex DStem+IFS, and a hyphen separates the RED from its Base. A check mark indicates the optimal candidate. Asterisks indicate nonoptimal candidates. Under constraint headings, checks indicate constraint satisfaction while asterisks indicate constraint violations, with fatal violations followed by an exclamation mark.

[7] There are Bantu languages with a Canonical Stem reduplicative template, like Kikuyu, for which the Canonical Stem RED is optimal even for stems with the structure in (24). (See (10), above.) These languages are accounted for, of course, by reversing the SiSwati ranking of RED=CS and MDEP.

[8] See, too, Derwing & Skousen 1988 for a comparison of derivational approaches to capturing similarity among morphologically related words with the surface analogy approach argued for in these recent OT papers and a discussion of psycholinguistic research favoring the analogical approach.

[9] I have specified in UE (30) that it is the DStem that is evaluated for correspondence. However, this should actually fall out from the claim that only the DStem is a lexical unit. The IStem, which includes inflectional suffixes, is not so evaluated.

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THE MODERNIZATION OF TANZANIAN KISWAHILI AND LANGUAGE CHANGE

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The focus of this paper is on the modernization of KiSwahili. I describe several mechanisms by which the KiSwahili lexicon is modernized both officially (i.e. through language planning) and unofficially (i.e., spontaneously). English loans are incorporated into KiSwahili structure via distinct processes. Modernization and Englishization are inseparable since use of English in modernizing KiSwahili leads to the Englishization of the language.

I show that deliberate attempts by language planners to expand the lexicon with English borrowings not only results in modernization, but has also led to Englishization of the native KiSwahili lexicon. Moreover, the process of Englishization is resulting in important changes at other levels of linguistic structure. The data we examine consists of both speech and texts data from various sources, such as the National KiSwahili Council (i.e., the National Language Academy), the Institute of KiSwahili Research, national radio, political speeches, newspapers, and KiSwahili textbooks.

0. Introduction

Language modernization is language development, also referred to as code elaboration (Haugen 1983). Code elaboration falls under the rubric of corpus planning. As the term suggests, it is an activity that deals with the corpus, i.e., the structure and vocabulary of the language (Cobarrubias 1983:43). Corpus planning is an important aspect of language policy implementation because it enables a language to fulfill goals that it had never previously reached by furnishing it with the necessary vocabulary and new styles of discourse (see Ferguson 1968, D'Souza 1987, Cooper 1989:149). In the case of Tanzania, the adoption of KiSwahili as both the national and the official language of independent Tanzania (then Tanganyika) in 1962 and 1967, respectively, greatly increased its prestige and functions (Rubagumya 1990).

The demand for new vocabulary became more intense with the announcement of the Arusha Declaration in December 1967. This is the political document on which Tanzanian Socialism, (translated as *Ujamaa*) is based. It emphasizes the ideas of democracy, such as equality of all human beings, the dignity of the individual, and education for self-reliance. This new ideology, taught through KiSwahili as the medium of instruction at the elementary level, created terminological problems. New KiSwahili terms had to be introduced to express concepts which had not hitherto been expressed. This endeavor inevitably resulted in the establishment in 1968 of the National KiSwahili Council (Mkilifi 1980), whose

major task is standardization of KiSwahili. A precedent for such planning can be found in various countries, e. g. , China, Israel, India, as well as in many other African countries. After independence, changes in governmental policies concerning language use in education has led to the demand for an expanded lexicon in Chinese, Hebrew, Arabic, and Hindi languages.

The modernization of KiSwahili is highly dependent on the English language, despite the nationalistic feelings of the Tanzanian people. The case of English as a modernizing agent of vernacular languages is not restricted to Tanzania alone. It is a common phenomenon in many nonwestern multilingual societies e.g., India (Y. Kachru 1989), Asia (Sridhar 1978), and many parts of Africa, e.g., Nigeria (Angeyisi 1977, Bamgbose 1986), Kenya (Mosha 1981), Congo-Zaire (Kamwangamalu 1989), Zambia (Kashoki 1982), and Tanzania (Mkilifi 1972). As B. Kachru (1984:14) has observed, when English has a local identity, Englishization is a valid process of modernization.

1 .   The Structure of KiSwahili

A brief discussion of the structure of KiSwahili is in order to enable us to identify the changes taking place in the structure of the lexicon which result from the importation of English items.

KiSwahili, unlike English, is a CV language that does not permit closed syllables with consonants or syllable-final consonants. The KiSwahili syllable is an open one, normally ending in a vowel. Permissible clusters follow certain sequential phonotactic rules. Such clusters include combinations of a plosive and a glide or fricative and a glide, such as *pw, tw, sw, zw,* and *py*, as in *pwani* 'coast', *twende* 'lets go', *swali* 'question', *mpya* 'new' and *fyeka* 'slash'. Clusters with other combinations, e.g., *bd* in *labda* 'may be', *dh* in *dharura* 'emergence', *kr* in *akra* 'mathematics table', *pt* in *kaptura* 'trouser', and *ks* in *maksai* 'oxen-plow', are attributed to foreign influence, usually Arabic.

Additionally, KiSwahili, like many other Bantu languages, has prenasalized consonants, e.g., *mb, nt, nd, ng, ny, nj*, and *ng'* as in *mbali* 'far', *ndugu* 'relative', *ngao* 'shield', *njama* 'conspiracy', and *ng'ombe* 'cow' With these combinations, it is possible to have a sequence of three consonants orthographically if the third one is a glide, e.g., *pindwa* 'curved', *chungwa* 'orange', and *sinywi* 'I don't drink'. For these clusters to form acceptable (i.e., open) syllables, there must be a vowel at the end of the syllable.

The stress pattern of KiSwahili also differs from English. Unlike English, which has a system of strong and weak stress, KiSwahili has relatively even stress, normally found on the penultimate syllable of the word or phrase, e.g., *motokáa* 'motorcar," *kuséma* 'to speak' *kikómbe* 'cup', *chakúla* 'food', *utafíti* 'research', *isímu* 'linguistics', and *nyúmba* 'house'. It is only in Arabic words that stress falls on a non penultimate syllable. Thus there are some words borrowed from Arabic that have stress on the first syllable, e.g., *rátili* 'pound', *gháfla* 'suddenly'.

Modernization of the lexicon as officially undertaken by the National KiSwahili Council has employed the following processes: borrowing, translation, semantic extension, neologisms, compounding, and loan shift.

2. English Borrowings

2.1 Borrowing with/without adaptation

This process can be divided into borrowing with adaptation and borrowing without adaptation. Borrowing with assimilation entails the assimilation or adaptation of a foreign lexical item into the structure and pattern of KiSwahili. The phonetic shape of the item and its meaning are imported into the recipient language and are reproduced with modifications to conform to the orthographical and phonological rules of KiSwahili. Common phonological changes include the insertion of an epenthetic or a terminal vowel, the simplification of disallowed clusters, the replacement of non-KiSwahili sounds, and accent shift.

(1) Final vowel addition

ajenti	'agent'
bolti	'bolt'
plani	'plan'
asidi	'acid'
naitrojeni	'nitrogen'
stameni	'stamen'
plagi	'plague'
spiriti	'spirit'
hoteli	'hotel'

(2) Swahili sound realization

akiolojia	'archeology'
takiomita	'tachiometer'
tekinolojia	'technology'
elektroni	'electron'
fotografia	'photography'
agronomia	'agronomy'
taksinomia	'taxonomy'
eksirei	'x-ray'
ekstensheni	'extension'
dikteta	'dictator'
trekta	'tractor'
aljebra	'algebra'
ikweta	'equator'
sekretarieti	'secretariat'
kompresa	'compressor'
betri	'battery'

Normally, the English spelling *ch* for the dorsal stop is rendered by *k* in Ki-Swahili, *ph* by *f*, *x* by *ks*, the affricate *g* by *j*, *qu* by *kw,* and the suffix *-y* by *-ia*.

Normally /u/ will be added if the final consonant is a bilabial or a labiodental.

(3)   *balbu*   'bulb'
      kilogramu   'kilogram'
      pampu   'pump'
      scrubu   'scrub'
      jamu   'jam'
      grafu   'graph'

Simplification of consonant clusters is done by deletion of one or more segments.

(4)   *ogani*   'organ'
      fomu   'form'
      seli   'cell'
      ofisi   'office'
      swichi   'switch'
      chati   'chart'
      brasi   'brass'

However, this step does not apply to all terms, as seen in the following examples. Instead an epenthetic vowel is inserted to break up the clusters.

(5)   *filamu*   'film'
      ligini   'lignin'

In some cases, instead of adding a vowel at the end of the syllable, as is normally done, the consonant is occasionally deleted: *ova* 'ovam', *miosi* 'meiosis', and *momenta.* 'momentum'. However, this is not a very common method, and there are few words of this nature found in the language. The transformation of English borrowed words according to the phonology and morphology of KiSwahili is a necessary step for these loans to be Swahilized (i.e., nativized).

There are some words that have entered KiSwahili without phonological adaptation. The reason is that they already conformed to the morphological structure of KiSwahili and contained sound combinations and syllable finals like those found in native KiSwahili words.

(6)   *data*
      lava
      libido
      propaganda
      stamina
      venturi

2.2 Loan translation

Also known as calquing, loan translation is another popular device used in the process of introducing English loans into KiSwahili. This method involves translating the word directly from the source language into the target language, KiSwahili. The lexical words below illustrate this process.

(7)   *data ghafi*   'raw data'
      hadubini   'microscope'
      isimu   'linguistics'

kinasa sauti	'microphone'
uchumi	'economy'
namba tasa	'prime number'
orodha ya kuzidisha	'multiplication table'

Loan translation is one of the methods most preferred by Tanzanian KiSwahili terminologists, because it is argued that this method is capable of producing terms that are more meaningful than phonetic translations (based on the pronunciation and morphology of the borrowed item). The latter has sometimes been criticized as inadequate because it produces incomprehensible terms since the new words sometimes fail to express the KiSwahili concepts adequately, although many times even the direct borrowing method is unsatisfactory when equivalents are lacking and terminologists have to find ways of creating totally new terms. This is particularly true in the fields of science and technology, which very often present complex concepts. A case in point is the term *kichomi* instead of *nyumonia* 'pneumonia'. According to the minutes of the National Kiswahili Council (KAKULU 1983-84), *kichomi* was resisted by some members of the lexicography committee on the grounds that it did not accurately characterize the disease in question. Rather it was conceived as a general term associated with piercing pain in the ribs, which is merely just one of the symptoms of the disease, and not the pneumonia itself. Because of this, the two terms *kichomi* and *nyumonia* now are used interchangeably for the same concept.

2.3 Neologisms

Neologisms create vocabulary by making use of material in the receiving language, while using the meaning and concepts from the donor language (D'Souza 1986:461). Abbreviation, derivation, and loan creations are instances of neologisms, which are discussed in turn below.

2.3.1   Abbreviation

Abbreviation involves shortening a phrase to form a word reflecting an English meaning. Technical phrases can be truncated by taking words or syllables of some of the words in the phrase, thereby creating a new word as in the following.

(8)	*Deltao*	<u>De</u>lta kama <u>Ta</u>o 'Acute delta'
		delta as acute
	Chajio	<u>Cha</u>kula cha <u>ji</u>oni 'supper'
		food of evening
	Ukimwi	<u>U</u>kosefu wa <u>ki</u>nga <u>Mwi</u>lini 'AIDS'
		Lack of immunity body

2.3.2   Derivation

Derivation makes use of existing KiSwahili word patterns. Normally, the KiSwahili root is expanded by inflecting it in various ways to coin a new word to cover the English concept. The following words were formed in this way.

(9) *kubadili*   'to alternate'
       kibadili   'alterant'
       ubadilishaji   'alteration'
     kusajili   'to register'
       usajili   'registration'
       msajili   'registrar'
     kuhariri   'to edit'
       mhariri   'editor'
       uhariri   'editing'
     kigawe   'dividend'
       kugawa /kugawanya ' to divide'
       mgawo/mgao   'division'
       ugawaji   'dividing'

This method has been recommended as the best technique because it produces terms that are conceptually related without meaning distortion or categorization (Marshad 1985, Besha 1986).

2.4 Compounding

Word compounding, or loan-blends (Haugen 1972), is also used to introduce English into KiSwahili. Compounds are created by joining two or more existing words. This process can be divided into two types: Compounding that uses purely native material and compounding in which English plays a role. Although KiSwahili typically forms compounds by the first method, nonetheless a large proportion of its compounds has been formed by incorporating foreign elements. In hybrids involving English, only part of the phonetic shape of the word is imported and the remaining portion is replaced by native morphemes (i.e., morphemic substitution).

The following compound words have been formed with English lexical items.

(10 a) *ofisi boi*   'officeboy'
         office boy
        posta masta   'postmaster'
         post master
        telefoni opereta   'telephone operator'
         telephone operator
        goli kipa   'goalkeeper'
         goal keeper

The order of the KiSwahili items is the same as in English apparently because they don't violate KiSwahili word order in which the modifier has to follow the head noun.

The examples in (10b) contain hybrids from English and KiSwahili, the verb being followed by the object as in English, hence the same order as in English.

(10b) *shuti goli*   'shoot a goal'
        shoot goal

spana kisanduku spanner box	'spanner (wrench) box'
fila geji filler gauge	'fuel gauge'

However, there are cases in which the order is reversed, as in the following blends.

(10c)	*udongo alkali* soil alkaline	'alkaline soil'
	ofisa utumishi officer personnel	'personnel officer'
	gesi asilia gas natural	'natural gas'
	meneja mkuu manager general	'general manager'
	pau pistoni rod piston	'piston rod'
	eka mraba acre square	'square acre'

This ordering is necessary in order for these terms to conform to the KiSwahili pattern (i.e., the noun is normally preceded by the modifier in English, but in KiSwahili the opposite is the case).

Some word order is English-based, while some is KiSwahili-based, and the order of choice does not appear to be rule-governed. Whereas KiSwahili used to have only one type of compound (KiSwahili + KiSwahili), the urgent need to expand the vocabulary of KiSwahili has resulted in the introduction of the hybrid, which is now productive. This is clearly symptomatic of the changes taking place in the language with respect to the expansion of terminology through English. The method produces shorter terms and has gained support from the majority of the population.

2.5 Doublets

Doublets are instances of the simultaneous existence in usage of both native and foreign terms. Examples of such coexisting doublets are the following.

(11)	*opereta/mpokea simu*	'telephone operator'
	mofolojia/elimu maumbo	'morphology'
	cheameni/mwenyekiti	'chairman'
	kupasi/kufaulu	'to pass'
	diploma/stashahada	'diploma'

The existence of two terms with the same meaning usually results when English terms are borrowed after their KiSwahili equivalents have developed.

2.6 Semantic shift

According to Hock 1986, semantic shift occurs when there is a shift in the meaning of words during borrowing. It involves three types of change: semantic restriction, semantic extension, and complete semantic change.

2.6.1   Semantic restriction

Semantic restriction takes place when the meaning of a borrowed word is narrowed in the recipient language. The meaning of an English word is often restricted in scope when it enters KiSwahili. Examples are the English loans *familia* 'family' and *populesheni* 'population' The term *familia* is restricted to a nuclear family, including father, mother, and children, whereas *jamaa*, which is a traditional term, has been retained to refer to the entire extended family. *Populesheni* is used in Tanzania only when referring to the national census, which is taken every ten years, instead of the normal KiSwahili term *watu* 'people'.

2.6.2   Semantic extension

Semantic extension takes place when the original meaning of an item is extended. *Fresh* 'fresh', refers to anything which is new, such as a new car or even a new wife. Likewise, *spring' chikeni* 'spring chicken' is a beautiful young lady. *Lodi* 'lord' is anybody who is rich and *sekandi hendi* 'second hand' means anything old, *second hand* 'wife' is the one who is despised. The word recently has been extended to refer to anything that has little value.

2.6.3   Complete semantic change

Complete semantic change occurs when a loan word undergoes complete semantic change from the way it is used in the source language. When this happens, the English loans are used as slang expressions. to designate new concepts in various settings. *Daladala,* from '*dollar,*' is one of these words. It refers to a big penny worth five shillings. It is a 'dollar' because in Tanzania American currency has more value. If one dollar is changed into Tanzanian shillings, one can buy a great deal. The term was introduced in the early 1980's, when it was used as fare in private town buses. The buses that charge this amount have become known as *daladala* 'dollar dollar' to this day, although the fare has been raised and is no longer one dollar. Similarly, *Cheki bob* 'check bob' is a name given to young teenagers, both boys and girls, specifically those youngsters typically found in big cities and leading a town life. *Dabo kebini* 'double cabin' is 200 shillings in paper money because it is double 100 shillings, just like the double cabin automobile with two compartments, one for carrying people and the other for luggage.

In KiSwahili, semantic change can also be applied to those native KiSwahili words that shift from their original meaning in KiSwahili to accommodate a new concept introduced by an English word. The following are examples.

(12) *beberu*   'he-goat'   Æ   'imperialist'
     kunyonya   'to suck'   Æ   'to exploit'
     kuzalisha   'to give birth'   Æ   'reproduction'

Semantic extension, has faced opposition from KiSwahili terminologists as a way of introducing terms in KiSwahili based on English. The opponents claim that the new items formed in this way are not clear enough, that the users will not be able to distinguish the new technical use of a word from its common use. A clear example is the term *kuzalisha*, which faced problems when it was introduced into the language. In the beginning, the word *kuzalisha* 'reproduction' as a technical term was resisted as inappropriate because it interfered with the traditional meaning, of *kuzaa* 'to give birth'. It was argued that, things like industry cannot reproduce, only human beings and animals can. However, frequent use in the industrial sector has encouraged acceptance. The general population now uses it without any hesitation in contexts that are related to production in the economy.

3. Spontaneous borrowing

In addition to the planned modernization of the KiSwahili lexicon undertaken officially by the National KiSwahili Council and other institutions such as the Institute of KiSwahili Research, unplanned modernization is taking place alongside the planned. The promoters of unplanned language change in Tanzania are individuals, parents, and unofficially recognized agencies who acquire and use KiSwahili as their main language of communication. There are many reasons why individuals decide to coin their own words, including sociopolitical, psychological, and economic ones. Sometimes the officially coined terminologies are not accepted by the people because the words do not explain the context appropriately, forcing the language users to introduce their own terms. This motivation was observed by Mkilifi 1972, Mwansoko 1990, and Tumbo 1982 in their studies of borrowing in Tanzania. Additionally, language, as a social phenomenon, also varies according to the sociolinguistic context, depending on communicative needs, which makes it difficult to impose a uniform language on individual users.

The vitality of spontaneous borrowing is reflected in the substantial number of words in different areas of Tanzania that have been coined in this way, in particular hybrids, using English elements. They include: *bongolendi* (nickname for Tanzania today), *teksibubu* 'illegal taxis', and *mwembe kona* 'a special corner for boarding buses', all words showing a significant deviation in meaning (i.e., semantic shift) resulting from the need to express new situations encountered by the speaker. In KiSwahili, the morpheme *bongo* means 'brain', or 'commonsense,' and *bubu* means 'dumb person'. The combination of these two items has produced new words with totally new meanings that can only be understood with reference to the sociocultural setting in which they occur. In the Tanzanian context the term *bongolendi* refers to the country itself. Tanzania has been nicknamed *bongoland* because of its deteriorating economic situation. It is *bongolendi* because in order to survive, one needs to use his brains to find other means of getting money to make ends meet, to supplement the inadequate salaries. Likewise, *teksibubu* is a slang term referring to illegal taxis, those taxis that are not officially registered, have no license for carrying on business, and so they are not marked. Hence they are called *bubu* 'dumb' because they do not have signs. It is interesting to note how these words have gained popularity, especially in spo-

ken KiSwahili where they are not used as slang but as special terms to express specific collocations.

The frequency of use of English loans depends on several factors, including the speaker's exposure to English, the setting, and partners in the conversation. In the case of Tanzania, the highest rate of loan-word use is found in the cities, where English borrowings among teenagers are common. As a criterion for prestige, English borrowings dominate the speeches of the elite, nicknamed *wasomi*. The speech of these *wasomi*, manifests itself in English mixed styles, such as code mixing and code switching because these people are among the few who have access to greater knowledge of the language. Numerous studies have been conducted in Tanzania in an attempt to explain why certain Tanzanians mix languages (see Mkilifi 1972, Scotton 1987, Bokamba 1988, Kishe 1995).

4. The impact of English

The modernization of the lexicon through English borrowings has automatically led to a significant modification of the phonetic and orthographic systems of KiSwahili as well as the stress patterns of some words.

4.1 Impact on syllabic structure

The data presented in this analysis reveal that a large number of loans are not fully integrated into the KiSwahili phonotactic system. The clusters in these words, particularly the medial ones, are sometimes left intact without the addition of an epenthetic vowel, thus resulting in a CCV or CCCV syllabic structure instead of CC(CW) V.

(13)	*aspirini*	'aspirin'	*eksirei*	'x-ray'
	kamishina	'commissioner'	*teleprinta*	'teleprinter'
	betri	'battery'	*breki*	'brake'
	naitrojeni	'nitrogen'	*plau*	'plow'
	skrubu	'screw'	*sekretarieti*	'secretariat'
	tekinolojia	'technology'	*elektrolaiti*	'electrolyte'
	tetraploidi	'tetraploid'	*kompresa*	'compressor'
	anthropolojia	'anthropology	*taksinomia*	'taxonomy'
	ekstensheni	'extension'	*trekta*	'tractor'
	dikteta	'dictator'		

Recall that consonant clusters in KiSwahili are allowed only when the left-most consonant is a bilabial or nasal consonant and the next is a homorganic sound. But in the list provided in (13), this rule seems not to hold, as there are consonant sequences such as <u>sp</u>, <u>sk</u>, <u>kt</u>, <u>pt</u>, <u>kd</u>, <u>br</u>, <u>pl</u>, <u>ek</u>, and <u>kn</u>. Furthermore, the occurrence of three consonants in a row violates the phonotactic constraint that three consonants are only permissible in prenasalized forms and only if the third consonant is a glide. We have sequences such as <u>shn</u>, <u>nth</u>, <u>mpr</u>, and <u>skr</u>, most of which appear in mid position. We also find closed syllables such as <u>tek</u>-, <u>dik</u>-, <u>sek</u>- <u>tet</u>-, <u>trek</u>- and <u>elek</u>-. Hence a foreign system of writing words emerges that is more English than KiSwahili, suggesting changes in the language. In spite of these alterations in the ordering of segments due to English influence, it is still very rare

to find English loans with no vowel in final position. This is because the final vowel in most African languages has an important semantic value, particularly in verbs (Bokamba 1981[1]). Normally the vowel *o* at the end of a word like *mwingiliano* 'interference', and *chanjo* 'vaccinate' indicates that it is noun, while *a* in *kuingiliana* 'to interfere with', and *kuchanja* 'to vaccinate' is a verb. However, due to the prolonged use of these and many other items, this orthography and pronunciation has come to be viewed as normal and acceptable in KiSwahili.

5. Effects on spelling and intonation

One consequence of borrowing from English is that the English system of stress is carried over in some English loans into KiSwahili. This variability is mainly evidenced in polysyllabic words, e.g., *plástiki* 'plastic', *sekretárieti* 'secretariat', *spíriti* 'spirit', and *sóksi*. 'socks.' It is also possible to encounter words in KiSwahili that vary in their stress patterns, such as *sekretárieti or sekretariéti* 'secretariat', *menejiménti* or *menéjimenti*, 'management' *kámpuni* or *kampúni* 'company', *opéresheni* or *opereshéni* 'operation.' This variability in the stress patterns of loan words (which now form a reasonable percentage of the lexicon) is a new innovation. It is difficult to ignore the English-based stress patterns, because forcing a KiSwahili syllabification would result in distorting the identity of the English loan, since in English stress is an essential part of the word.

6. Conclusion

In this paper, I have shown that the modernization of the KiSwahili lexicon has resulted in changes on the lexical, phonological, and morphological levels. These changes have been expressed as the 'Englishization' of KiSwahili. It has also led to the nativization of foreign elements in the lexicon.

Phonologically, the influx of words from English (a language in which consonant clustering is common) has resulted in changes in the character of KiSwahili. While consonant clusters used to be a rare phenomenon found only in a few loans of Arabic origin, the introduction of English loans has led to the relaxation of the constraint against medial consonant clusters. Although such sequences at first were considered unacceptable, they have become increasingly acceptable. There is now also clear variation in the pronunciation of lexical items. While KiSwahili used to follow well-established rules in marking stress, the borrowing of English elements has led some words to have dual pronunciations, creating variability in the pronunciations of particular loan words.

Semantically, the modernization of the KiSwahili lexicon is responsible for bringing changes in the meaning of some loans that were considered part of the KiSwahili lexicon, i.e., Englishization of content. There has been an expansion in the semantic field of KiSwahili. There are many loans that have been borrowed from English whose content is English-based. A majority of these cases have meanings narrowed or expanded at the time of importation, and some new words were formed that had totally different meanings from the words in the donor language.

The recent influx of English technical loans has led to the growth in the proportion of KiSwahili lexicon that is Englishized (Bhakhresa 1992). As long as Tanzania continues to rely on English materials for school use, the amount of lexical borrowing will increase, leading to further Englishization.

NOTE

[1] As in most Bantu languages, the addition of a vowel at the end of a KiSwahili word is morphologically motivated. The morphology of a Bantu word consists of a verbal root + terminative, the most common being the Bantu -*a*, -*u*, and -*e* . The meaning of a word is altered depending on this vowel. In the case of KiSwahili, words like *kumotisha* 'to motivate' and *kuoksidisha* 'to oxidize' with the final -*a* shows that they are verbs, whereas in *motisho* 'motivation' or *oksidisho* 'oxidation', the final -*o* reveals it to be a noun. It is for this reason that most English nouns and verbs have to appear in KiSwahili with a terminal vowel. The same phenomenon was observed by Bernstein (1990:55), who found that because of the semantic load of the final vowel in the language he studied (i.e., Chimundu in South Africa), most English words, including verbs, appeared with a final vowel.

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ON THE MEANING OF CHICHEWA IDEOPHONES

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With the exception of Mphande 1992 and Kulemeka 1993a, studies on ideophones have tended to focus on their formal phonological and syntactic properties. Such studies are invaluable, but fail to illuminate the question regarding why native speakers sometimes prefer to use ideophones instead of words of the regular lexicon such as verbs, adverbs, and adjectives. The present paper addresses this question. Using examples from poetry, a play, and naturally occurring speech, it is shown that ideophones express meaning by simultaneously evoking several senses. Thus, one ideophone like /mbwe:/ 'sound, sight of numerous light-weight grains falling on a hard surface' paints a vivid picture that appeals to the senses of sound, sight, and texture of the grains. The ideophone also indicates the texture of the surface on which the grains are falling. Such a mode of expression is not available to prosaic words of the regular lexicon.

1. Introduction

Most work on ideophones in African languages has focused on their syntactic and phonological properties (Childs 1988, Doke 1935, 1954, Fivaz 1963, Fortune 1962, Kulemeka 1992, 1993a, 1993b, 1996, Kunene 1978, Marivate 1985, Mphande 1989, Newman 1968, Samarin 1967, 1970,Torrend 1891, Watkins 1937, Zondo 1982). For instance, Fortune's 1962 work on Shona ideophones represents an important study of these forms. The main thrust of Fortune's work is that ideophones exhibit different morphological, syntactic and phonological characteristics from the regular lexicon. Fortune states that ideophones form a sub-linguistic system in Shona that co-exists with the 'normal' system. He describes some of the 'aberrant' morphosyntactic features of ideophones. However, his analysis treats ideophones as peripheral elements of the Shona grammar. Such a position does not accord with the fact that Shona has hundreds of these forms. And as Kulemeka 1996 has shown for Chichewa, nearly all regular verbs can derive ideophones. Thus, nonderived ideophones together with derived deverbal ideophones make up a category of items that in numbers far exceeds that of verbs in Chichewa. It seems that on grounds of their numerousness alone, ideophones deserve to be considered as part of the main grammar.

Focus on unusual aspects of ideophones is also reflected in Childs 1989, Mphande 1989 and to a lesser degree in Kulemeka 1993a. In particular, Mphande 1989 attempts to use the ideophone's 'aberrant' phonological features in order to establish the elements' grammatical category. The results are inconclusive because Mphande fails to suggest a criterium of phonological features that reliably identifies ideophones. His list of characteristics of ideophones applies to only a few

ideophones, and fails to characterize a majority of the elements (see Kulemeka 1995 for a detailed discussion).

However, Mphande 1992 makes a notable contribution to the study of ideophones in the sense that he attempts to look at the meaning of ideophones in poetry. The central objective appears to be to use ideophones as a way of identifying some aspects of literature that are uniquely African. Mphande's analysis of the ideophones in poetry suffers from a lack of a clear understanding of what ideophones are. For example, some of the items he analyses as ideophones are clearly verbs and nouns (Kulemeka 1995).

Additionally, since ideophones are found in almost all language families, they might not serve the function of identifying African poetry in the way that Mphande 1992 wants them to.

The present paper addresses the issue of why on certain occasions native speakers of Chichewa decide to use ideophones, instead of words of the regular lexicon like nouns, verbs, adjectives, and adverbs. What are the compelling reasons for such choices? What do speakers achieve through ideophones that they would not by use of regular words of the lexicon such as verbs, nouns, adverbs, and adjectives. The same questions apply to poets and writers. For instance, why do some poets and writers use ideophones when they could very well use a verb, a noun, an adverb or an adjective?

As we attempt to answer these questions, it will become clear that there are remarkable differences in the way ideophones convey meaning, on the one hand, and the way in which regular lexical items also convey meaning. Unlike verbs, nouns, adverbs, and adjectives, whose meaning tends to be plain and prosaic, ideophone express meaning by simultaneously evoking multiple senses. Thus a single ideophone like /mbwe:/ 'sight and sound of scattering dry maize on a hard floor', conveys information about the sight of grains of dry maize falling lightly and producing a tapping sound on a dry floor; for instance, a cement floor. Notice that the ideophone evokes three senses at once: sight, hearing, and touch/texture. Regular words of the lexicon fail to achieve this type of economy and conciseness in expression. We will show in this paper that the motivation to use ideophones stems from the need to be adequately descriptive with a few words only.

By using an ideophone, the speaker seems to want to clearly and precisely delineate an event to the hearer. Ideophones enable speakers to 'paint' vivid pictures of events using words.

This paper examines the meaning of a number of ideophones in Chichewa and demonstrates their high meaning content. By looking at nonderived and derived ideophones, we show that in both cases ideophones bring to utterances rich meanings and connotations that prosaic words do not possess.

The paper is organized as follows. The first section discusses ideophones in select Chichewa poetry and shows how careful choice of ideophones contributes to the success of a poem. The second section focuses on a comparison between an ideophone and its source verb and reveals the increased meaning content of an

ideophone. The third section shows that in certain contexts pragmatic failure occurs if an ideophone is not used. In other words, some situations of language use require an obligatory ideophone. The last section demonstrates how reduplication and certain meanings are linked in ideophones. The paper concludes by showing that ideophones constitute a critical and nonperipheral aspect of Chichewa grammar.

Data for this paper come from poetry, novels, and fragments of people's conversations.

We will also show that some ideophones express actions and others describe appearances. The latter, which we call imagist ideophones, simultaneously appeal to multiple senses by which we perceive things and thereby evoke vivid images. Owing to the lack of temporal reference in the ideophone itself, imagist ideophones tend to present still-life-like pictures that strongly appeal to most of the senses such as touch, smell, taste, and sight.

2 . Ideophones in poetry

The rendering of certain situations in Chichewa simply require the use of ideophones. Jack Mapanje's poem *Kuli Kwathu* 'If I Were Home'* illustrates the use of ideophones in poetry (Ideophones are in **bold letters**; a free translation of the poem follows).

Kuli Kwathu

Jack Mapanje

Kukhosi kwaumaku, ndili kwathu
Likanafewetsa ndi thobvu lokha
Thobvu losefukira, kuyenderera
Chipanda cha mowa chayangatidwa bwino
Uli pachiphaka, pankhokwe **yedzekeke.**
Kachipapa kachindimba kali:
Phi-phi-thi, phi-phi-thi, phi.
phi-phi-thi, phi-phi-thi, phi.
phi-phi-thi, phi-phi-thi, phi.
Azimayi atatsetseretsera zirundu
Zawo chambali apa, zingoli
Akubvomerezana ndi azibambo
Ena onse natsirira mang'ombe nabvina.
Inde ndi thobvu nthuni,
Likanafewetsa kummero kwaumaku.
Thobvu losefukira chipanda,
Thobvu loziziritsa kukhosi,
Thobvu losesa pfumbi kuti
Ukonkhe bwino moyera, kukhosi
Kumveke **libwidii.**
Ndipo malobvu ali mkamwa lengezuwa,
Ndi thobvu la kaphala, ayi ndithu,

Bwenzi mgwidyo umveka bwino.
Kuli kwathu nsenga tikanatafunira,
Thobvu la **thikhwithikhwi** lili
Thwanithwani, kupenya oyimba ng'oma,
Mapazi ali pansi:
thi-thi-thi.
thi-thi-thi.
'Akabango' ndi miluzu zili pakamwa.
Koma kuno, ayi mbale, ngakhale
Nsenga zotafunira, kaya nthungululu
Yokha **ata**!; zingoli zimene ndi za wena,
Kwina! Likhala thobvu limene
Ndi **tinthubwinthubwi**, tophenima
Ndi kamphepo ka yepiyepi nanga.
Thobvu lidzinga la sopo ya makaka?

If I Were Home

If I were home, this caked throat
Would be quenched by froth alone.
Froth overflowing a held calabash
While I am sitting on supports of the
Granary doing nothing.
It is froth alone which would
Have quenched this thirst
While a tiny piece of /chindimba/
was going:
phiphithi, phi flapping in the wind

Women stylishly wrapped in colorful
Cloth, singing in harmony with the men
Singing together and dancing.
Yes, it would be froth indeed
To soften this throat
Beer froth spilling the calabash
Beer that cools the throat,
Wiping out the dust
So that the beer can quench
A clean throat which feels soft.
As for this insipid saliva
In the mouth, with a little good beer
I would have a good appetite.
If I were home I would have eaten
Even the dregs
Beer froth of bubbling
Is twinkling.
I would watch drummers
Stamping their feet

Stamp, stamp, stamping
The ground.
The song 'Akabango' accompanied by
whistling.
Not here friends, there are not
Even dregs to munch on,
No ululating even; the melodies
are themselves foreign.
somewhere else! There would be
Beer with bubbles, which
Blink and a cool wind going lightly
indeed.
The froth here tastes like cheap soapsuds.

There are many outstanding literary properties in this poem one could remark on, but for our present purpose we will focus on the ideophones /yedzekeke/ 'leaning against', /phiphithi phi/ 'cloth flapping in the wind', /libwidi/ 'soft, limp and wet', /thikhwithikhwi/ 'bubbles appearing everywhere', /nthubwinthubwi/ 'bubbles' and /thithithi/ 'feet stamping the ground'. Six of these ideophones serve to illustrate the notion of imagism, one conveys action.

The ideophone /yedzekeke/ derives from a neutral passive verb /yedzekeka/ 'be leaned against' to which has been attached an ideophone-deriving vowel /-e/; another ideophone-deriving vowel is /-o/ or /-u/. The suffix /-ek-/ or /-ik-/ derives a neutral passive verb in Chichewa that is distinguished from the regular passive verb by the fact that it does not permit a 'by construction'. Regular passive verbs suppress the AGENT but allow its optional appearance in a 'by construction' as follows: The house was washed (by John). Neutral passive verbs in Chichewa provide only a structure like: The house was washed.

The verb /yedzekeka/ 'be leaned against', which has no AGENT, becomes an ideophone and acquires the connotation of extended duration through the ideophone vowel /-e/. /yedzekeke/ is an imagist ideophone. The ideophone conveys a picture of the persona in the poem lounging lazily on a granary platform. The persona just happened to be placed here where we observe him. There was no effort to attain this position and there is no effort whatsoever to remain sitting there. In a certain sense, the persona comes across as an object like, for example, a big blanket or some other heavy soft object that just happened to be where it is and exerts no effort in remaining that way. The persona does not move a muscle. In fact he is indolent. His total surrender to comfort and passivity is slightly repulsive.

/yedzekeke/ 'silent, effortlessly being supported by something for a long period of time' simultaneously paints multiple images, one relating to the timelessness of the scene, and the other to the complete indulgence in this moment of absolute relaxation where the persona does not exert any effort and surrenders himself to the support of the platform of the granary. In this moment of peace and quiet even the house fly has departed.

Words of the regular lexicon do not express multiple meanings in the way that /yedzekeke/ does here. For example, the verb /yedzeka/ 'lean against', from which the ideophone /yedzekeke/ derives, denotes 'lean against', without any of the rich connotations.

A fundamental difference in the way the ideophone /yedzekeke/ 'silent, effortlessly being supported by something for a long time' and /yedzeka/ 'lean against' denote relates to the use of the senses. The verb /yedzeka/ prosaically refers to an event. However, /yedzekeke/ presents a still-life-like painting to the hearer and evokes responses by a variety of senses. For instance, the sense of sight 'sees' the immobile soft and heavy object lazily lying on the supports, the sense of 'time' attaches a long duration to the scene and the sense of hearing excludes all noise. The ideophone imbues the senses with all these sensory impressions and stimulates them to respond simultaneously. The overall effect of /yedzekeke/ on the hearer is one similar to a painting, which in its own way can simultaneously convey texture, sound, warmth/coldness, movement, etc. Nuckolls (1992:51) correctly observes that when used in a narrative, a 'sound symbolic form [or ideophone] simulates the salient qualities of an action, event, or process, and thereby invites a listener to project into an experience. This projected involvement, in turn, points the listener to deeper kinds of imaginative, intellectual, and emotional engagement with the narrative'. Nuckolls's perception of the role of sound-symbolic words in a narrative appears basically accurate, although she does not delineate the semantic qualities of the sound-symbolic forms that enable them to elicit these involved responses from the hearers. The present analysis fills such a gap.

Another imagist ideophone /phiphithi, phiphithi, phi:/ from Mapanje's poem also exemplifies the semantic attributes of ideophones. Notice that /phiphithi phiphithi phi:/ is in three parts. The first and second part portray both the motions and sound of a flag flapping in the wind. It is not a windy day, so the motions are rather slow. The flag is of medium size and so blows leisurely in the wind. After each interval of flapping, the flag comes to a complete standstill. The image of the flag at a standstill is conveyed by /phi:/ in the last part of the ideophone. /phi:/ encapsulates both the moment of stillness when the flag is at a complete standstill and the relatively long duration the flag takes before it resumes flapping again.

Observe that sound, speed, silence, duration, and motion are all succinctly expressed by the ideophone /phiphithi phiphithi phi:/. It is the ability to draw on several modes of perception and at once to communicate a variety of things that distinguishes the way ideophones mean from other words. It is perhaps for this same reason that Mphande 1989 has felt that there is a 'natural' correlation between the ideophone as a sign and its meaning.

Other imagist ideophones like /libwidi/ express meaning by appealing to sound symbolic connections. For instance, an iconic correlation between the consonantal sequence /l.b.d./ and feeling and looking 'soft and wet' appears to exist in Chichewa (see McCarthy 1979 for detailed discussion of this proposal). This is evident in the following ideophonic words (whose general meaning refers to being 'soft, limp, and wet'): /lobodo/, /lebwede/, and /libwidi/. The choice as to which

form to use depends on context. For example, in the poem /libwidi/ is the appropriate form because it refers to the throat. /lobodo/ is used to describe things like cooked vegetables, whereas /lebwede/ can be used in reference to a person who is so lacking in energy that he reminds one of a soft and wet cloth. This usage is often appropriate in respect to a sick person who lacks strength.

The ideophone /libwidi/ in the poem relies for its success, firstly, on the mental associations the reader has regarding the sequence /l.b.d./. Secondly, the ideophone suggests to the reader to respond with more than one sense. The senses of sight, taste, and touch/feel are involved here. Sight is involved in the sense that /libwidi/ describes a thing that looks soft and wet. And since /libwidi/ refers to the throat, there is a sense in which one associates the wetness with the taste in the throat. Finally, soft and wet objects have a certain soft and wet texture. These multiple layers of meanings are concisely expressed by a single ideophone like /libwidi/.

Sometimes reduplication in imagist ideophones conveys the idea of 'plentiful, widespread, numerous'. For instance, the ideophone /thwanithwani/ in the poem connotes 'numerous together twinkling like the stars'. /thwani/ means 'flash light briefly like the firefly'. The notion of numerous, which further suggests the look of stars, is expressed by the reduplication. The picture the poet draws in the poem is that of the beer froth, which is full of clear bubbles that reflect light like the stars. For Malawian indigenous beer, which is what the poem depicts, the sight of clear froth is a sign the beer is very good.

In a similar vein, the ideophone /thikhwithikhwi/ in the poem connotes motion and sound on the surface of the beer. Through /thikhwithikhwi/ we can hear the sound of numerous bubbles pushing their way to the surface of the beer. The bubbles rise and grow into different sizes, the entire surface area is crowded by expanding bubbles, they climb on each other, some carrying bran on their inflating bodies. At the end each bubble explodes with a fizz. However, the process starts all over and gets repeated over and over again. These rich evocations are the contributions of the ideophone /thikhwithikhwi/ to the poem. Of course like any part of the language, the reader's response to the ideophone depends critically on his awareness of the culture.

While the ideophone /thikhwithikhwi/ combines visual and audio images of closeness, growth and disappearance of the bubbles in the beer foam, /nthubwinthubwi/ is essentially an audio ideophone. /nthubwinthubwi/ captures the sound of the minute explosions as each bubble emerges, bursts and submerges. The reduplication in /nthubwinthubwi/ conveys both the senses of numerous and speed. Regarding the idea of speed, /nthubwinthubwi/ has to be said at a fast pace. So, in fact, the rate at which the ideophone is said also symbolically indicates its meaning.

There is a sense in which the syllable /bwi/, which has an imploded /b/, in /nthubwinthubwi/ sound-symbolizes 'sink'. This is most likely so because the syllable /bwi/ in Chichewa tends to convey the idea of 'sink' or 'swallow' as the following words exhibit: /chubwi/ 'compact object sinking', /bwira/ 'swallow

something' and /mbwibwi/ 'flour of roasted dry maize that toothless people swallow'. Thus, the ideophone /nthubwinthubwi/ utilizes an already available symbolic connection between the syllable /bwi/ and the idea of 'sinking' to create images of the activities of the froth.

Observe that the success of the word /nthubwinthubwi/ to economically convey these different senses seems to depend on the mental connections that native speakers of Chichewa have created between some sounds and certain meanings. These iconic correlations are language specific. Also notice that by employing ideophones in his poem, Mapanje obviates the need for lengthy sentences to express his feelings. Ideophones provide the user with words that are rich in imagery.

Some ideophones stress action or motion. The image presented by such ideophones then tends to be dynamic rather than static or still-life-like. For example, the ideophone /thi thi thi/ depicts the rhythm and sound of feet stamping the ground. The ideophone indicates the pace of the dance through the intervals between each unit of /thi/. If the pace is fast, the ideophone is said quickly without pauses between each syllable. If, on the other hand, the dance is slow-paced, each syllable of the ideophone is said with a long vowel and there is a pause between the syllables. Thus vowel length and the pace at which an ideophone is said has iconic importance in Chichewa ideophones. This is not the case in the regular phonology. For example, if one says the words /mnyamata/ 'boy', /fulumira/ 'to be quick', /bwino/ 'well' and /tali/ 'tall' quickly or slowly with pauses between the syllables does not alter the word's meaning at all.

The ideophone /thi thi thi/ iconically conveys the basic rhythm of the dance through its trisyllabic structure. The dance steps in *ngoma* (the dance to which the poet refers) are based on a count of three beats. Therefore each syllable in the ideophone represents a unit of movement in the dance. So when one says /thi thi thi/ one sound symbolically accomplishes a unit of time in the rhythm of the dance.

Notice that the interpretation of the ideophones in Mapanje's poems rely rather heavily on a wealth of cultural information. Thus, for example, it would be impossible to make sense of /thi thi thi/ if one did not associate that ideophone with a type of dance called 'ngoma' whose dance steps, pace, and the sound made by the feet are all iconically expressed by the ideophone. Ideophones are unusual in this respect because they depend more heavily on a more involved understanding of the cultural background than other categories of words in the language. A poet who maximally exploits this facet of ideophones is A.E.Dziko in his poem *Kamphepo* 'a pleasant breeze' discussed below.

3. The cultural context

The success of Dziko's *Kamphepo** appears to hinge heavily on a very careful selection of ideophones that evoke images and emotions that lead to a wideranging array of cultural associations.

Kamphepo

A.E. Dziko

Kamphepo ka **zii** kakuomba.
Kadzuwa kali **gegerere**!
Kautsi m'nyumba ya panjira kali **tolo**!
Kafungo ka nyama yootcha kali **guu**.
Mchere **the the the** umveka.
Ine m'kamwa dovu monga fisi ndidza.
Kaya ndi nkhumba, kaya ndi ng'ombe?
Nkosatheka kulota, mpaka **jegwe** dzino
Kanthuli litalawa.

A cool breeze

A cool breeze blows cool.
A cool sun is bright!
A light smoke from a house on
the road rises high and straight!
An enticing whiff of roast meat is
widespread and overpowering.
The salt cracks.
My mouth waters like a hyena's.
Is it pork, is it beef?
I can't guess, until I chew.
I taste a piece.

Dziko infuses a sense of delicacy and endearment in the things that he depicts by using the diminutive prefix /ka/. Hence, there is not just /mphepo/ 'wind', but a light breeze /kamphepo/. And it is not just light, but cool in a very agreeable way /ka zii/. /zii/ 'light cool' gives one the impression of a time of the day when it is pleasantly cool. It is either at the break of dawn or early evening. It could not be around two o'clock in the afternoon because most places are hot in Malawi around that time of the day.

The sky is clear as the warm sun shines /gegerere/ 'brightly'. The ideophone /gegerere/ also suggests something about the voice or persona in the poem. For him to observe the sun in such detail intimates that he is not tilling the soil with a hoe in the field, but probably taking a casual stroll or idly sitting somewhere watching the sun in the sky.

The ideophone /tolo/ 'a long and thin vertical line of smoke' subtly suggests that the setting of the poem is the village. The appearance of smoke as expressed by /tolo/ is often associated with early evening before sunset when people are returning home from their daily labors, like gardening, and the evening meals are being prepared. As the persona indicates, the house from which such an aroma is coming is by a footpath. This is a common expectation since every house has a footpath that connects it to the rest of the village. /tolo/ also intimates that the kitchen in which the cooking is being done has a thatched roof that enables the smoke to fil-

ter out and emerge looking thin and straight. Moreover, this has to be a windless evening for the smoke to appear thin, vertical, and rising into a clear sky. All these rich details are cleverly put across by the use of just one ideophone. Viewed in this way, the ideophone really saturates our senses with large amounts of not just the meaning of the ideophone but its cultural details as well.

Another ideophone that also depends on a shared cultural background is /gu:/ 'intense and widespread aroma'. Firstly, Dziko depicts the smell of meat roasting on a fire in an extremely enticing manner. Such an attitude to meat tallies very well with Malawians' highly positive attitude to the consumption of meat. The attitude prevails in the villages and among the urban poor, who often can not afford the price of meat.

We can also assume that the persona, who is probably a peasant farmer, eats meat infrequently. The ideophone /gu:/ suggests that the persona thirstily drinks in the aroma of the roast meat and swoons in it. Then he hears /the the the/ 'the sound of salt on fire'. This is the salt the owner of the meat has rubbed on the piece of meat to add flavor to it. Such details evoke a vision of bright red charcoal beneath thick laces of meat spread out on criss-crossed sticks. The meat juice drips, fizzes on hot charcoal, burns, smoke billows out as the meat cooks slowly turning chocolate brown. Scattered spots of gray mark areas where the salt has burnt. The persona imagines the scene with such details because he has done it before. As a result, he salivates so profusely that he likens himself to a hyena. The reference to the hyena makes sense in regard to the fact that this animal is portrayed in Malawian folktales as greedy and always seeking to fill its stomach. Finally, the persona imagines taking a huge bite of the piece of meat, /je:gwe:/ 'bite', to determine if it is pork or beef.

Dziko's poem succeeds essentially because the poet has chosen a topic and ideophones that maximally convey the kind of cultural matter that touches a familiar cord in Malawian hearts. The poem is itself like a cinematic portrayal of a segment of rural life in Malawi.

4. Ideophones and source verbs

The idea that ideophones do more work than verbs serves to explain why some ideophones co-occur with their source verbs, as shown in (1).

(1)   mwana a-na-khumata   khu:ma:
       1child 1-Tn-fold hands sad

       'The child had his hands folded looking sad.'

The verb /khumata/ 'to have hands crossed in front of one's chest to show sadness' denotes the appearance described here in a neutral way. Essentially what the verb /khumata/ is communicating is that someone has taken the posture described here and therefore intends to mean that he is sad. The ideophone /khu:ma:/, however, means much more. For instance, /khu:ma:/ means that the person referred to by the ideophone exudes sadness. In other words his eyes, entire face, manner of speaking, walking, or sitting all express sadness. The perceiver feels this sadness, which is radiating from the experiencer. In a sense the sad person has become the

embodiment of the emotion of sadness itself. From the example of /kʰumata/ as contrasted with the derived ideophone /kʰ:uma:/, we can see that the ideophone introduces certain connotations to the basic meaning of the verb.

Another example illustrating the different levels of information content between a derived ideophone and its source verb is shown in (2).

(2) Tifana a-nka-ti a-ka-ti   **ge:** kugeya,
     1Tifana 1-Tn-say 1-when-say belch to belch

     'When Tifana belched heartily...'

The ideophone /ge:/ 'belch' in (2) is derived through truncation from the verb /geya/ 'to belch'. /ge:/ and /geya/ share a basic meaning relating to belching. Why then is it necessary to have both /ge:/ and /geya/ in (2) above? /ge:/ has certain meaning connotations that /geya/ does not express. For example, /ge:/ for the Chichewa speaker in fact sounds like the act of belching itself. Thus the ideophone provides a sound image which is absent in the infinitive /kugeya/ 'to belch'.

In addition, the ideophone presents a visual image of a wide open mouth belching almost endlessly. There is also an implication that a disagreeable odor emits from such an open mouth. Such meaning connotations as these are tied to the ideophone and justify its use together with the source verb. In contrast, /kugeya/ 'to belch' presents a prosaic meaning of the activity; it simply denotes 'belching'. /kugeya/ neither portrays the sound nor the visual images that accompany the act of belching. Clearly then, the verb provides just the barest amount of information, whereas the ideophone includes details that make the activity more vivid.

Some ideophones do not collocate with their source verbs. However, such ideophones co-occur with a highly restricted number of verbs with which they share a basic meaning. For example, the ideophone /ngu:/ 'hard' is lexically specified to collocate with the verb /uma/ 'be dry' and /mbu:/ 'dust' specified for /tuwa/ 'be dusty', as revealed in (3).

(3) a. Mimba   i-li **ngu:** ku-uma ngati i-phulika
       9stomach 9-be hard INF-hard like   9-burst

       'The stomach is so very hard that it looks like it would burst open.'

   b. Kumaso   nako ku-li **mbu:** kutuwa ngati kaphulika.
      14face   and   14-be dust dust   like dusty dancer

      'The face was all covered with dust like the masked dusty dancer.'

In (3a) the general meaning of the ideophone and the infinitive verb is the same. But this masks the rich sensuous information that the ideophone introduces in the sentence. For example, /ngu:/ 'hard' suggests the sound made by the skin of a very tight drum. Therefore, the implication is that the stomach is so full that if it were beaten it would produce the sound of a very tight drum. At the same time, /ngu:/ conveys the visual appearance of the stomach as tightly stretched like the surface of a drum. By providing both auditory and visual images in a single word, the ideophone obviously provides different information from the verb. The verb /uma/ 'hard or dry' is prosaic and denotes without appealing to a variety of senses.

In (3b) the infinitive /kutuwa/ 'be dusty' does not capture the extent of the 'dustiness'. The ideophone /mbu:/ 'dusty' indicates that the whole face is completely covered with a fine grained type of dust. Furthermore, /mbu:/ indicates that the dust is gray in color.

The examples in (3) reveal that when nonderived ideophones collocate with their specified verbs, the ideophones contribute important information to the sentence. The information content of the predicate verb is made more specific and much richer. Thus when native speakers choose to include ideophones in a sentence it is for compelling content reasons and not simply because they want to be dramatic.

However, in some contexts the use of ideophones transmits a feeling of drama, as the example in (4) demonstrates.

(4)   A-da-landira ndi Tao ndipo a-da-ngo-chi-ti **gwi:, wu:**
      He-Tn-receive be Tao and 1-Tn-just-OM-do catch, drink

      na-chi-ika pansi.
      and-OM-put down

      'It is Tao who received it and he simply got a hold of it, and
      drank all its contents and put it down.'

The sequence of adjacent ideophones /gwi:/ and /wu:/ impart a dramatic connotation to the structure because each ideophone represents an action. /gwi:/ implies 'catch instantaneously' and /wu:/ implies 'take a long uninterrupted drink which finishes the drink'. In (4) we are presented with a series of actions that each ideophone expresses. The first one /gwi:/ is done quickly and 'shows' the hand grabbing something, the second /wu:/ is uninterrupted and covers a long duration. /wu:/ also echoes the noise and motion made as the drink is gulped down a huge open throat. Thus the ideophones in (4) truly present a dramatic situation. Notice that the two situations, viz., grabbing and drinking are not brought together by a conjunction. This enables the actions to appear next to each other without interruption. The absence of inflection also allows the reader to focus on the events alone.

5 .   Ideophones and pragmatic failure

Some contexts require the use of an ideophone. Conversely, if an ideophone is not used the meaning of the utterance is highly marked or nonsensical. 'Pragmatic failure' is the term we use to refer to contexts in which a nonnative speaker does not use an ideophone, but where a native speaker would invariably use an ideophone.

Numerous situations demand the use of ideophones in Chichewa. However, no other situation so obviously requires an ideophone as when we want to depict fast paced events. For example, for actions like 'sinking', 'falling', or 'throwing', the Chichewa speaker has to use ideophones as the following examples show.

(5) a. ndalama zanga zi-li-basi **mi:**! Ndalama zanga zili-**mi:**.
        9money 9my 9- be then sink

        'My money is..', then he sinks! ' My money is..', then he sinks!'
        (from Steve Chimombo's play titled <u>Wachiona Ndani?</u>)

   b. Pewani a-na-gwa   **pho:fo:**.
        1Pewani 1-Tn-fall fall

        'Pewani fell heavily like a sack half-full of maize.'

The ideophones in (5) are pragmatically obligatory. Failure to use ideophones in such cases leads to pragmatic failure. In order to capture the feeling that the event is instantaneous and simultaneous with the word describing it, Chichewa grammar stipulates the use of ideophones. Hence, we find that action-oriented situations, as in (5), are full of ideophones.

In (5b), the ideophone /pho:fo:/ uniquely captures the properties of Pewani's fall. The sound made by the fall and the sense of the weight of the object that fell are economically conveyed by the ideophone /pho:fo:/. If instead of Pewani, a rock had fallen, then a different ideophone like /kʰu:/ 'fall of a hard object on a hard surface' would have been used. There are many ideophones in Chichewa which precisely capture the different nuances of a variety of falls. Notice that the ideophone /mi:/ in (5a) is restricted in its use to refer to solid objects sinking in water. Furthermore, the kind of sinking denoted by /mi:/ is one that does not create splashes; if splashes accompany the sinking then /kʰu:vu:/ 'fall on water and possibly sink with a big splash' is used.

As a general observation, Chichewa verbs, adjectives and adverbs are able to describe most situations that native speakers encounter. However, there are contexts where employing such words at times feels inadequate or produces pragmatic failure as shown in (6).

(6)a. a- na-ponya   mwala u-mene u-na-menya chipupa
       he-Tn-throw 3stone 3-which 3-Tn-hit 7wall

      'He threw a stone which hit the wall.'

The sentence in (6) lacks something, it is syntactically wellformed but sounds odd. What is lacking is an ideophone, which must state precisely the weight and the impact of the stone on the wall. At the same time, the ideophone will reveal the type of surface the wall is made of. All this information is captured in a word like /pʰu:/ 'heavy object hitting a rather soft surface'.

(5) and (6) illustrate that in some contexts the use of ideophones is pragmatically obligatory because words of the regular lexicon are inadequate to express the nuances that ideophones connote.

Moreover, in some situations where it is necessary to be very exact in the meaning we need to put across, the use of ideophones becomes pragmatically obligatory. For instance, the semantic subtleties conveyed by the following single-word ideophones are rare, or unattainable, in the regular lexicon: /du:/ 'long pe-

riod during which one says absolutely nothing', /boː/ 'completely full of something', or /nzwiː/ 'silent a long time and very imposing'.

In summary, both derived and nonderived ideophones bring to a structure meaning connotations that are critical to how we interpret utterances. Unlike words of the regular lexicon, we have shown that most ideophones appeal to multiple modes of perception. The level of economy and efficiency in transmitting multiple meanings found in ideophones is not evident anywhere else in the language.

We have argued that, in some contexts, the use of an ideophone is pragmatically obligatory. Failure to use ideophones in such situations leads to structures that sound highly marked. Viewed in this way, the ideophone is critical to the information content of the sentence.

6. Reduplication and meaning

Partial and full reduplication have a role in altering the meaning of ideophones in Chichewa. Firstly, we will discuss partial reduplication. A certain type of partial reduplication suggests intensity of the activity indicated by the ideophone:

(7) a. pwete 'laughter' ---> pwepwete 'hearty laughter'
   b. psulu 'baby' ---> psululu 'a tiny newly born baby'
   c. psiti 'finish' ---> psititi 'totally finished'

Partial initial-syllable (7a) and final-syllable (7b, c) reduplication imply an intensifying of the basic meaning of the ideophone. Thus, /pwete/ 'laughter' becomes intensified by the reduplicated initial syllable to derive /pwepwete/ 'hearty laughter'. In a similar way, reduplicating the final syllable in /psulu/ 'baby' derives /psululu/ 'a tiny newly born baby'. In both cases partial reduplication results in the intensification of the meaning of the ideophone.

Fully reduplicated ideophones often suggest repetition or, as already indicated above, abundance, as in /dzandidzandi/ 'walk unsteadily everywhere', /zungulizunguli/ 'appear restless everywhere', or /nkhaninkhani/ 'numerous or in abundance'. The sense that reduplication indicates repetition appears to be closely linked to full reduplication in ideophones. Thus we have other examples like: /gwingwiligwingwilili/ 'of metal falling repeatedly on a hard surface', /balalabalala/ 'simultaneously going in different directions', /fulukutufulukutu/ 'repeatedly squirming and turning', which illustrate repetition through full reduplication.

To summarize, partial and full reduplication alter the basic meaning of ideophones in Chichewa. In partial reduplication, the common implication is that the basic meaning of the ideophone has intensified. With respect to full reduplication, the commonly suggested meaning is that of repetition and abundance.

7. Conclusion

The fact that a single ideophone can at once evoke several senses of perception, indicates one of the most important semantic distinctions between ideo-

phones and words of the regular lexicon. Furthermore, ideophones exhibit a level of meaning specificity that is not at all evident in the regular lexicon.

It has also been shown that some situations require the pragmatically obligatory use of ideophones.

The semantic features of ideophones discussed in this paper clearly show that ideophones denote meaning differently from words of the regular lexicon. It is hoped that this study stimulates further research into the largely neglected area of how ideophones express meaning.

NOTE

* Both of the poems, 'Kuli Kwathu' and 'Kamphepo', appeared in the anthology *Akoma Akagonera* (1981), ed by Enock Timpunza Mvula. Limbe, Malawi: Popular Publications, and are used with permission of the publisher. A loose translation of the anthology's title is 'The aged taste better'.

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THE EFFECT OF COMPLEMENTIZER *THAT*
ON EXTRACTION FROM EMBEDDED CLAUSES

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Complementizer *that* has been associated with subtle pragmatic distinctions and with the acceptability of extraction from complement clauses. This experiment attempted to determine whether *that* plays a causal role in making extraction less acceptable, by manipulating the presence of *that* in structurally ambiguous questions presented to subjects. The results showed that *that* did play a causal role; when it was present, questions were less likely to be interpreted in a way that required extraction from the complement. This raises the possibility that extraction processes are constrained by the pragmatic factors associated with the use of *that*.

A speaker, having decided what to say, still has a number of choices to make about how to say it. The choice of certain words and structures over others is not a random process, but a principled one, guided by speakers' intentions and beliefs about the structure and content of the ongoing discourse. Differences in form will have corresponding differences in meaning or pragmatic value.

The use or omission of the complementizer *that* in an embedded complement clause, as in (1), provides 'perhaps the severest test of all' (Bolinger 1972:9) for this hypothesis.

(1)   He said (that) she left.

Although *that* has sometimes been considered optional in this context, Bolinger and others have shown that the choice to include or omit it is principled, and can be influenced by a number of different factors. One of these is the desire to avoid structural ambiguity. *That* can be used in sentences like (2) to indicate whether the adverbial phrase belongs to the main clause or the embedded clause (McDavid 1964; Bolinger 1972; Elsness 1984).

(2)   a.   He said on Saturday she left.
      b.   He said on Saturday that she left.
      c.   He said that on Saturday she left.

The use of *that* can also be associated with style — *that* being more likely in formal style; with verb frequency — *that* being more likely with infrequent verbs (McDavid 1964; Bolinger 1972; Elsness 1984); and with individual verb preferences — some verbs being more or less likely to be used with *that* independent of frequency (Trueswell et al. 1993; Bolinger 1972).

There are also cases where *that* reflects a pragmatic distinction, and a number of studies have attempted to determine just what that distinction is. Bolinger 1972

argues that *that* is an anaphoric expression, i.e., one that makes reference back to an element earlier in the discourse. As such, *that* would link the embedded clause to a real or implied question in the previous discourse. For example, in an exchange like (3), *that*, if present, links the answer to the question asked and provides an answer that is responsive to the question. If *that* is omitted, the link is missing, indicating that the information in the embedded clause is new and not fully responsive to the question.

> (3) a.   What do you know about this?
>   b.   I know (that) the estimates are wrong.

Bolinger argues that the omission of *that* is appropriate when there is no previous discourse to refer to, or when the speaker chooses not to make the link to the previous discourse explicit and requires the listener to infer it.

Underhill 1988 (as described in Thompson & Mulac 1991) relates the use of *that*, at least in journalistic English, to the *embeddedness* of the complement clause. He claims that when *that* is omitted, 'the embedded clause loses much of its embeddedness... [I]ts subject, rather than the main clause subject, tends to be the topic of the discourse, and its content, rather than that of the main clause, tends to be what the writer is endorsing. The main clause subject and verb, then, become secondary to the content of the lower sentence' (Thompson & Mulac 1991:239). *That*, then, seems to mark the embedded clause as just that — embedded and subordinate to the main clause. When *that* is omitted this relationship becomes less clear, and the embedded clause stands on more equal footing with the main clause.

Though these two explanations at first seem very different, it may be that Underhill's claims about degree of complement embeddedness follow from Bolinger's claims about the anaphoric nature of *that*. Since an anaphor refers back to something previously mentioned in the discourse, the presence of *that* in a complement would indicate that the information in the complement has been previously mentioned, or is 'information already given' (Bolinger 1972:56). In this case, focus can shift to the new information conveyed by the main clause subject and verb, making the embedded clause less important. When *that* is absent, the embedded clause is not marked as given or secondary and increases in status.

Thompson and Mulac 1991 take Underhill's line of reasoning one step further. In a study of a corpus of spoken English, they correlated *that* omission with syntactic, semantic, and pragmatic factors that in turn reflect the likelihood that the main subject and verb are reanalyzed as an epistemic phrase (i.e., a parenthetical or adverbial comment on the complement indicating the degree of speaker commitment). They claim that 'certain combinations of main clause subjects and verbs in English are being reanalyzed as unitary epistemic phrases. As this happens, the distinction between "main" and "complement" clause is being eroded ... with the omission of *that* a strong concomitant' (Thompson & Mulac 1991: 237).

Thompson and Mulac's arguments focus on a historical explanation of parentheticals, such as *I think* or *I guess*, used to indicate the speaker's commitment to the content of the embedded clause. For example, *I think he left* expresses a milder degree of commitment than *He left*. However, their general explanation can also

apply to other instances of *that* omission. When *that* is omitted, the status of the embedded clause is raised, and the information in the main clause becomes an additional, perhaps secondary, comment on the content of the embedded clause.

An issue that none of these studies has addressed concerns the direction of causality. Does *that* play a causal role in determining the relative status of the main and embedded clauses? Or is its presence determined by these other factors? The experiment described here attempted to answer that question by manipulating the presence of *that* in otherwise identical sentences, to determine whether the presence of *that* alone could influence the interpretation of the sentences.

Another issue that has not been addressed is the use of *that* in questions. This issue is important because *that*'s presence can be correlated with the acceptability of extraction from the embedded clause. For example, complements in which *that* is obligatory (sentential subjects, manner-of-speaking verb complements, complex noun phrases) tend to be syntactic islands that do not allow extraction. In addition, many of the elements in main clauses that correlate with an increased likelihood of using *that*, such as adverbial modification, indirect objects, and long or unusual predicates, also make extraction more difficult (Kutryb 1994). These elements increase the 'semantic content' of the main clause (Thompson & Mulac 1991:246) and reduce the likelihood that it could be taken as a secondary, epistemic comment on the embedded clause (and thus reduce the likelihood that *that* will be omitted). For example, in (4) the adverbial *loudly* makes omission of *that* less acceptable in (a), and makes extraction less acceptable in (b). And in (c), the question is more acceptable if the adjunct is interpreted as being extracted from the main clause rather than the embedded clause.

(4)   a.   He said loudly that/?0 she saw it.
      b.   ?What did he say loudly that she saw?
      c.   When did he say loudly that she saw it?
           (1)   When did he say?
           (2)   ?When did she see?

Thus, extra content in the main clause correlates both with the presence of *that* and with the acceptability of extraction from the embedded clause. When the main clause has more content, *that* is more likely to be included and extraction is more difficult. But why should extra content in the main clause make extraction from the embedded clause more difficult? The findings indicating that *that* relates to the relative status of the main and subordinate clauses raise the possibility that the ease of extraction is related to the same factor.

This issue can be addressed by an examination of the question posed above regarding the potential causal role of *that*. If *that* alone, independent of the content of the main clause, makes extraction more difficult, this would indicate that *that*, by altering the relative status of the main and embedded clauses, also altered the ease of extracting from the embedded clause. In this way, the syntactic process of extraction would be constrained by pragmatic factors. Erteschik-Shir & Lappin 1979 have proposed a similar explanation of extraction phenomena, arguing that

extraction is only possible out of constituents that can be regarded as the main point of an utterance.

The experiment reported here examined the role of *that* in interpreting questions containing embedded complements. By comparing sentences that are identical except for the presence or absence of *that*, the experiment attempted to filter out any effect of *that* from other factors and determine whether *that* itself contributes to the difficulty of extraction from the complement. Adjunct-extraction questions such as (5) were chosen as a test case because of their structural ambiguity.

(5)   When did he say (that) she saw it?

Two different interpretations of this sentence are possible: one in which the adjunct is extracted from the main clause and questions the main verb *say*, and one in which the adjunct is extracted from the embedded clause and questions the embedded verb *saw*. The interpretation (and answer) given to the question serve as an indicator of whether extraction from the embedded clause occurred in interpreting the sentence. If the answer given is the time of *seeing*, then the adjunct was interpreted as being extracted from the embedded clause. The manipulated variable was the presence or absence of *that* in the questions. If *that* does have an effect on extraction, the presence of *that* in an ambiguous question should make the interpretation in which the adjunct is extracted from the embedded clause less likely.

Methods

Subjects: The subjects were 35 University of Illinois students who participated on a voluntary basis.

Materials: There were 14 trials. Each trial consisted of a short paragraph to be read, followed by two forced-choice comprehension questions. A sample trial is shown in (6).

(6)   Sample trial:

Cathy's office was always understaffed. Management wouldn't even talk about hiring new staff, even though Cathy and her co-workers frequently had to work overtime. Finally, management began considering hiring some new people. They didn't say anything definite, but in the October staff meeting, they implied that new staff would be hired, perhaps in January, when the new fiscal year began. However, when February rolled around and no new staff arrived, Cathy and her co-workers were not happy. They brought the question up again in the monthly staff meeting.

When did management imply (that) new staff would be hired?
        October   January
Who was not happy in February?
        Cathy   Management

The paragraphs described simple, everyday situations, with emphasis on the timing of a sequence of events. The first question was always an ambiguous adjunct-extraction question (all were *when* questions) in which the complementizer *that*

was either present or absent. The two possible answers corresponded to the interpretations of the question. For example, one answer was the time that management implied (as described in the paragraph), and the other answer was the time that new staff would be hired. The presence or absence of *that* was the independent variable, and was manipulated across trials. The second question was simply a distractor.

The paragraphs were constucted so that the two possible answers were clearly stated, usually using the same wording as in the question, and both the main and embedded verb from the question appeared in the paragraph. When the main verb from the question appeared in the paragraph with a sentential complement (it usually did), the complement always had a *that* (although in the questions it might or might not have had a *that*). Finally, the questions were constructed so that they were acceptable with or without *that* and so that either interpretation of the question was plausible (though perhaps not equally so). Acceptability and plausibility were based on the experimenter's intuitions.

Design

The presence or absence of the complementizer *that* in the first comprehension question was the only factor manipulated. It was counter-balanced across subjects and items. The dependent variable was the answer to the first comprehension question — specifically, whether or not it reflected an embedded-verb-questioning interpretation of the question. Two randomly ordered lists were constructed with equal numbers of items with and without *that*. They were counterbalanced so that a given item appeared only once per list, and all items that appeared with *that* on one list appeared without *that* on the other list. Each subject saw only one list.

Procedure

Subjects were given a test packet containing all 14 items. They read each paragraph and then answered the questions by circling the appropriate answer on the test sheet. Subjects were allowed as much time as they needed and were free to refer back to the paragraphs in answering the questions. The instructions stated that if subjects were uncertain about an answer they should choose the first one that came to mind. After completing the test items, subjects completed an informal survey to determine whether they were aware of the experimental manipulation and whether they used any conscious strategy in selecting their answers.

Results

Data from three subjects were eliminated from the analysis, one because the subject did not complete all trials, and two because the subjects reported that they consciously used the presence or absence of *that* in interpreting the questions. Results from the remaining 32 subjects are shown in table 1, reported in terms of the percent of responses that reflected an embedded-verb-questioning interpretation.

Table 1

Percent of responses that reflected an embedded-verb-questioning interpretation.

OVERALL	WITH *THAT*	WITHOUT *THAT*
50%	43%	58%

Overall, embedded verb responses occurred 50% of the time, but the embedded verb response was chosen less frequently when *that* was present than when it was absent. Items in the with-*that* condition received an embedded verb interpretation 43% of the time on average, compared to 58% in the without-*that* condition. Paired t-tests showed this difference to be significant both by subjects, [$t_1(1,31) = 5.749$, $p < .01$] and by items [$t_2(1,13) = 3.502$, $p < .01$].

Discussion

The results show that the presence of *that* did have an effect on extraction from the complement clause. When *that* was present, an interpretation requiring extraction from the complement was less likely to occur. The results also show that the effect of *that* was not absolute. Subjects frequently picked the embedded verb interpretation when *that* was present, and picked the main verb interpretation when *that* was absent. The effect of *that* appears only in the aggregate, as a greater tendency to select the embedded verb interpretation when *that* is omitted. Thus, *that* is only one factor influencing the interpretation of an ambiguous question.

Analysis of the individual item and subject differences may give an indication of what the other factors are. There was a wide range of variability both among subjects and among items. Some subjects always chose the embedded verb interpretation, while others almost never did. Similarly, there was a great deal of variability among different items, with percent of embedded verb interpretations ranging from a low of 22% to a high of 69%. Given the nature of the materials it is impossible to determine the source of the item biases — i.e., whether the bias results from how the material was presented in the paragraph or from the questions themselves or from some combination of the two. However, it is clear that both subject and item biases played a role in the interpretations of the questions, in addition to the effect of *that*.

One potential problem with the results is the fact that almost all of the subjects were aware of the ambiguity of the questions. In the informal survey, almost all subjects indicated that they identified the ambiguity of the questions very early in the test and knew that the experiment was examining how they resolved the ambiguity. It is possible that the subject's awareness of the ambiguity influenced their answers. In fact, some subjects indicated that they used a specific strategy in answering, which was to remain consistent in their choice of main or embedded verb interpretation. To the extent that this occurred, it mitigated the effect of *that*, yet this effect was still statistically significant.

Most subjects indicated that they just chose the answer that seemed to sound better. Very few noticed the presence or absence of *that*, and none consciously used *that* in selecting their answer (except for the two subjects who were eliminated from the analysis). Thus, even though subjects were consciously resolving the ambiguity, they were not necessarily aware of the factors that influenced their decision. Therefore, the results of this experiment are likely to be informative about what normally happens during comprehension. A way to avoid this issue in the future would be to use a larger number and greater variety of materials, in hopes that subjects would not notice the ambiguous questions so easily. It is not clear that even this would entirely eliminate the problem, however, since the questions are necessarily ambiguous and were, in fact, chosen for this reason.

This experiment has shown that the presence of *that* can itself make extraction from an embedded clause less likely. This answers the question of the direction of causality by showing that *that* does play a causal role. The relative status of the main and subordinate clauses is in part determined by the presence of *that*. In addition, the results indicate that this effect can also influence the ease of extraction from embedded clauses. *That*, by altering the relative status of the main and embedded clauses, also alters the ease of extraction from the embedded clause. Thus, extraction, a syntactic process, is constrained by pragmatic factors.

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THE PRAGMATICS OF CODE ALTERATION IN NIGERIAN ENGLISH*

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This study examines the socio-psychological functions of code-alteration in conversational interactions in Nigerian English literature, using an integrative model of analysis. Code-switching and code-mixing are demonstrated to be most frequent in the speech of educated speakers of Nigerian English (NE), as evidenced both in their general initiation of code alteration in discourse, and the ease with which they code-switch/mix. In addition, this paper demonstrates that, in the case of a fully developed indigenized variety of English such as NE, its lectal variants function as (un)marked codes in different situational contexts. Two kinds of code-mixing are identified: intralectal and interdialectal. The acrolect is demonstrated to function primarily as the host code and Nigerian Pidgin as the main guest code. It is argued that the educated Nigerian generally has access to most, if not all varieties of NE and, therefore, commands a larger code repertoire in NE than the minimally educated or 'uneducated' Nigerian. The purposes for which code-switching and code-mixing are utilized in the conversational interactions analyzed here are demonstrated to be multifarious. The present study suggests interesting differences in the use of code alteration in native and non-native English-speaking societies, which could reveal differences in power structure. It therefore has important implications.

1. Introduction

This study examines the socio-psychological functions of code-switching (hereafter, CS) and code-mixing (hereafter, CM) in Nigerian English literature, with a view to gaining a better understanding of the pragmatics of code alteration in Nigerian English discourse. Hence, Nigerian English (hereafter, NE) is revisited, via CS and CM in NE, about which little has been written, and the applicability of existing frameworks of analysis is investigated. However, the neurological aspects of code alteration are not focused on in this paper.

With roughly 400 languages in use in Nigeria (Bamgboṣe 1971; Kinyomi 1980; Jibril 1982), the 'Giant of Africa' is one of the most linguistically complex countries in the world. Three regional languages are regarded as the major languages: Hausa (spoken in the north), Yoruba (spoken mainly in the south-west), and Igbo (used in the south-east). However, multilingualism, with its accompanying problems as regards the choice of a stable national language, has 'forced'

English (a neutral language) to function, in many ways, as the unofficial national language (see Emenyonu 1989: 83).

With each passing year, it is becoming more obvious that English has come to stay in Nigeria, but not as the colonial variety—British English—but as NE, with a local, Nigerian flavor. In Nigeria, English is a fact of life, as reflected in its multifarious functions in education, government, commerce, communication, and so on. In schools, English is introduced as a subject in the first grade, and is the medium of instruction from the third grade onwards. It is, in fact, the most important colonial 'heritage' (Bamgbọse 1982). NE which, in Achebe 1970 terms, has been 'bent' and 'twisted' to bear the burden of the Nigerian experience, is a product of several societal forces, depicted in Fig. 1.
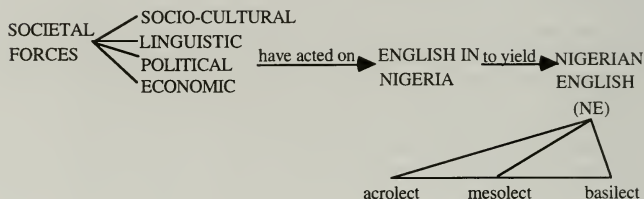

Fig. 1: The emergence of Nigerian English

As Akere (1982:97) rightly observes:

> What has happened here in Nigeria ... and in other places where some cultural assimilation of the English language has taken place is that the resources of a second language are superimposed on an intricate system of social and kinship relationships, and on a completely different pattern of cultural outlook and social expectations ... (T)he English forms of address and greetings have become modified or semantically extended to suit local communicative needs.

So well-developed is NE at this point that it has actually developed distinct varieties, which have been referred to as NIGERIAN ENGLISHES (Bamiro 1991). As shall be demonstrated in this paper, the use of CS and CM in NE is further evidence of the richness and fully developed nature of NE.

This study is primarily motivated by the near-absence of literature on CS and CM in NE, and the claims made in a number of recent publications (e.g., Bamiro 1991; Myers-Scotton 1993a:71) regarding the 'lower' social status of users of Nigerian Pidgin English, which, in this paper, is demonstrated to be the most frequently selected 'code-switched' variety in the casual context of situation.

An explanation for the selection of the data corpus is in order. The data in this paper were drawn from Nigerian English literature, and specifically from the

novels of two of the most prominent Nigerian novelists. Wole Soyinka and Chinua Achebe. Two reasons account for the data choice: first, its accessibility and second, its representativeness. Several discourse analysts have demonstrated that literature constitutes a rich data source (see Y. Kachru 1989; Thumboo 1992; Lowry 1992). What adds to the value of data drawn from Nigerian English literature is the fact that CS and CM constitute a crucial ingredient in the creativity inherent in this type of literature. Since literature in NE has been one of the primary disseminators of NE, in the sense that it has had a formative influence on the language of educated Nigerians, it serves as a suitable data source. For one thing, Nigerian literature holds a very important place in secondary education, and, more importantly, the English used in NE literature generally ranges from the standard, educated variety (the acrolect) to the intranationally intelligible variety (the mesolect), and Nigerian Pidgin English (the basilect). It therefore aptly mirrors the profile of English usage in present-day Nigeria.

2. Definition of key terms

In the present study, the term 'code' is used as a neutral cover term for lects, dialects, and languages. The distinction between CS and CM, as recognized by Kachru 1978, 1983 and several other sociolinguists (see Sridhar and Sridhar 1980; Bokamba 1987, 1988; Kamwangamalu 1989) is maintained and justified on the following grounds. First, the fact that both phenomena manifest themselves in different linguistic domains—CM being intrasentential, and CS intersentential—suggests that different psycholinguistic processes may be at work in both cases. In other words, the two phenomena make different cognitive demands on the user. The difference in their domains of operation in itself constitutes a valid ground for differentiation of the two phenomena. A second reason for the terminological distinction is that the nature of the phenomena differs; CM generally entails the infixing of small(er) linguistic units (mostly words and phrases) whereas CS can, and often does involve entire sentences being 'brought in' from another dialect or language. A strong argument in favor of the distinction is provided by Bokamba 1988 who observes that:

> the two phenomena make different linguistic and psycholinguistic claims. … Codeswitching does not require *the integration of the rules of the two languages involved in the discourse*, whereas codemixing does [emphasis mine]. (24)

In this study, CS refers to the intersentential juxtaposition of words, phrases, and sentences from two or more linguistic codes, within the same speech event (Kachru 1978; 1982; Sridhar and Sridhar 1980; Hartular 1983; Bokamba 1987, 1988; Kamwangamalu 1989), while CM refers to the intrasentential mixing of linguistic units (affixes, words, and phrases) from two or more distinct grammatical systems or subsystems and within the same speech situation. Two kinds of CM are identified—intralectal and interdialectal CM. While the former involves only lectal varieties of NE, the latter involves at least one variety of NE and another language: local or foreign. The observed dual manifestation of CM in the data examined is another reason the distinction between CS and CM is recog-

nized in this study. If the term CS were employed as a cover term, these subdivisions would become too confusing.

Another variable frequently focused on in studies on language typology is intelligibility. When it is used as the key variable, it is possible to talk of varieties of NE in relation to the polylectal speech situation (see Bamiro, 1991). The most descriptively adequate typology is one which allows for linguistic mobility, that is, for CS and CM between varieties of NE, as is the case with most (educated) Nigerians. Hence, Bamiro's 1991 typology, based on Bickerton's 1973 framework, appears most functional. Bamiro 1991 identifies three varieties of NE, as follows:

The Acrolect is the prestigious, 'higher' or educated variety (Standard NE), which is internationally intelligible. The acrolect is most frequently employed by the educated Nigerian[1], who has had the benefit of a college or tertiary education (and who has therefore had extensive exposure to several varieties of NE).

The Mesolect or intermediate variety is intranationally intelligible, and most representative of NE; it contains the largest number of Nigerianisms. Because of the difficulty of distinguishing between the acrolect and the mesolect, however, some scholars have expressed reservations about the use of this term.

The Basilect or contextual variety is generally associated with the uneducated and semi-literate population, and used as a kind of in-group code which is generally stigmatized by the out-groupers. NIGERIAN PIDGIN ENGLISH (hereafter, NPE) and what has been referred to as BROKEN ENGLISH (see Todd 1982, Wiwa 1988) fall into this category (see Bamiro 1991 for examples).

These varieties are best viewed as part of a continuum (cf. Todd 1982:286).

3.   Literature review: Studies of mixing in Nigerian English

Current interest in code alteration is at an all time high, as evidenced by the rapidly growing body of literature on this subject. Entire books have been published on this topic, viz.: Heller 1988, Jacobson 1990, Eastman 1992, and Myers-Scotton 1993a, 1993b. In fact, several workshops and panel discussions have been devoted to the subject of code alteration (see ESF 1990, 1991a, 1991b, 1991c). What these concerted efforts indicate is that code alteration is not something that can be ignored. Given the spatial constraints, however, it is not possible to discuss all the studies to date on code alteration. Some of the more recent ones will be discussed, especially those that have to do with CS and CM in Africa, as the present study has to do with an African variety of English.

Some of the most thorough analyses of CM in Africa have been provided by Bokamba 1987, 1988. The bulk of his data is derived from Bantu languages. In his seminal 1987 study, for instance, the significance of CM to linguistic theory is carefully discussed, and evidence drawn from two Bantu languages, Lingala

and KiSwahili, and two Indo-European languages, French and English. Bokamba argues that code-mixed speech is merely a manifestation of the bilingual's internalized grammar, and that linguistic theories, in particular, syntactic theories must account for this knowledge.

Bokamba 1988 revisits the phenomena of CM and language variation by presenting an analysis of CM in Lingala and Swahili, and their respective interaction with French and English to yield urban varieties of these African languages. The descriptive and explanatory adequacy of syntactic constraints on CM is also examined, and shown to be invalid cross-linguistically.

Although some studies acknowledge the use of code alteration in NE, none of these studies has attempted to study its nature and use(s) in the Nigerian setting. Odumuh (1987:32), in his book *Nigerian English*, observes that:

> ... it is frequently the case that an individual can master and use more than one variety, being able to switch from one variety to the other in appropriate circumstances. In fact, many Nigerian English speakers show dual competence in either pidgin and broken and standard, or pidgin and non-standard and are able to code-switch whenever the need arises.

However, Odumuh does not discuss the use of CS and CM in Nigerian English. In a footnote to a paper, Bamiro 1991 also mentions the use of CS and CM as further evidence of the frequent use of NE in Nigerian English literature. However, he too does not provide any instances of these key phenomena in NE. Since CM and CS involving NE are predominant in Nigeria, they should not be relegated to mere mention in a study.

Although a number of studies have focused on CS and CM in Africa (see Abdulaziz 1972; Parkin 1974; Agheyisi 1977; Scotton and Ury 1977; Sesep 1978; Nartey 1982; Forson 1979; Scotton 1982; Bokamba 1982, 1987, 1988; Kamwangamalu 1989a; Myers-Scotton 1989, 1993a, 1993b; Eastman 1992), few have focused on what is termed interlarding in the speech and writing of Nigerians. Agheyisi (1977:97), one of the few exceptions, examines code-mixed speech that results from 'the interspersing of indigenous language speech with English elements'. The resultant 'speech style' is referred to as 'Interlarded Speech'. Yet, even in this study, reference is not made to NE per se, perhaps because it was not a fully developed Indigenized Variety of English (IVE) then. Moreover, Agheyisi 1977 does not examine CS. When one examines the recent literature on CS and CM involving data drawn from Africa, one notices that it is somewhat lop-sided; most, if not all the data is from East Africa. Reasons such as these have necessitated a study of the kind discussed in this paper, which provides evidence from West Africa, thereby adding to the database of cross-cultural studies on code alteration.

As Agheyisi (1977:97) rightly observes, interlarded speech (IS) or CM is a linguistic phenomenon which has 'virtually become a stable part of the verbal repertoire of urban communities in Nigeria'. She discusses some of the linguistic features of IS, using examples from Edo and Yoruba, and discusses attitudes towards it. However, though insightful, her paper is restricted to CM, and that too,

to CM involving the use of interspersed English elements in Igbo to yield what is sometimes described by purists as adulterated 'Igbo'. In contrast, the present study examines CM (and CS) between the local varieties of NE, and between one or more varieties of NE AND a (guest) local language (interlectal CM), in order to highlight the fully developed nature of NE, and to simultaneously illustrate the importance of CS and CM in the Nigerian setting.

Several of the more recent studies have, however, focused on the more theoretical aspects of CS and CM (see Myers-Scotton 1989, 1992, 1993a, 1993b; Eastman 1992; Burt 1992; Cheng and Butler 1989; Heller 1992), and Myers-Scotton (M-S, hereafter) has even proposed a model of CS—the MARKEDNESS MODEL — to account for CS. In her study entitled *Social Motivations for Code-switching*, she cites some examples of CS in Nigeria, and provides a convincing picture of the importance of the phenomena of CS and CM. For instance, her 1976 Lagos study revealed that, in the Nigerian context, level of education was the 'best predictor of language-use patterns'. She reports that (1967:71):

> For those workers in inter-ethnic situations with more than primary-school education (N = 99), some form of CS is clearly the unmarked choice. True, English on its own is a main choice (50%). But 30% report they use English/Pidgin English; and another 16% say they use English in combination with an indigenous ethnic-group language.

She finds it noteworthy that the white-collar workers willingly reported their use of Pidgin alongside 'Standard' English, in spite of the stigma associated with it then, and as she rightly observes, even today. A slightly revised version of the markedness model is also presented. In the revised model, a 'markedness metric' is proposed as a crucial part of M-S's enlarged conception of the bilingual's linguistic competence. The metric is believed to account for a speaker's ability to evaluate all the codes in his/her repertoire as more or less (un)marked for the particular exchange(s) for which they are utilized.

According to M-S 1989, CS is of particular interest now because English is a common ingredient in those parts of the world where it still functions as either an official language or as a medium of instruction. This observation is particularly relevant to those parts of the multilingual world where IVEs have emerged, with their own distinct lectal forms, as in Nigeria and India (see Bamiro, 1991). As M-S (1989:334) argues, it is the overall pattern of the use of two or more codes that conveys social meaning, viz. that 'the participants have shared and simultaneous membership in two social identities', symbolized by each of the codes used.

In general, M-S highlights the patterns of bilingualism prevalent in the bulk of Africa. For instance, the results of her 1977 Lagos survey revealed that (1993a:33):

> [I]n the sample studied, 77% claimed some ability in English. Of these, 91.5% reported using some English in the previous 2-3 days. For those claiming ability in Pidgin English (74%), 76% reported using it in the previous 2-3 days. While a much smaller percentage claimed to speak Hausa as a second language, what is interesting is that as many as 75% of

these persons claimed to have used it in the last 2-3 days, even though the Hausa area of Nigeria is far to the north of Lagos, a Yoruba-speaking city.

What her survey clearly points at is the Nigerian's linguistic creativity. The present study aims at highlighting this, too.

M-S 1993a, 1993b focuses on CS between languages, and specifically on the socio-psychological functions of such juxtaposed language use (vii). The data is drawn from Africa, especially from Kenya (and some from Zimbabwe), and the multilingual nature of Africa is identified, as reflected in M-S's response (1993:33) to the question 'Who becomes bilingual in Africa?':

> The simple answer is, almost everyone who is mobile, either in a socio-economic or a geographic sense. ... [T]he typical person speaks at least one language in addition to his/her first language, and persons living in urban areas often speak two or three additional languages. ... The generalizations apply across the continent.

Oftentimes, at least in Africa (see M-S 1993a), there is a direct connection between education and bilingualism, on the one hand, and (the frequency of) code alteration, on the other. Even though bilingualism cuts across socio-economic and ethnic groups, the present study, for instance, validates M-S's (1993a:34) observation that, 'As a rule, the more education, the more bilingualism ...', and the more the CS. Although M-S uses the term 'urban syndrome' to capture the multi-ethnic nature of everyday interactions, the term FLUID CODE SYNDROME appears to be more applicable to the present study, as it aptly expresses the nature and frequency of the phenomena of CS and CM.

Another fairly recent text that provides a detailed discussion of CS as an urban language-contact phenomenon is Eastman 1992. All twelve articles in this volume draw attention to settings where people from diverse cultural and linguistic backgrounds interact regularly and naturally. Six of these examine codeswitching in Africa where unrelated languages are in contact (see M-S 1992; Gysels 1992; Blommaert 1992; Goyvaert 1992; Swigart 1992; Merritt et al. 1992).

The reason CM (and CS) between local varieties of NE is investigated in this paper is because such a focus demonstrates that this phenomenon is not 'restricted' to different languages and dialects, but often involves the juxtaposition of other kinds of codes as well (see DeBose 1992; Burt 1992). The data in the present study provides crucial linguistic and social information on Nigeria. In other words, the study of CS and CM within this single IVE, viz. NE, should be viewed as a crucial part of a comprehensive study of the linguistic and socio-cultural make-up of Nigeria, a reflection of the linguistic fluidity, and the social milieu. The present study also shows how CS and CM in NE are used to encode power and solidarity relations (see Goyvaerts and Zembele 1992).

4. An integrative model of analysis

As different models have been employed to analyze CS and CM in different studies, a brief overview of the most frequently adopted and most recent ones is in order. One of the earliest and perhaps the best-known frameworks of analysis is the INTERACTIONAL FRAMEWORK, associated with Gumperz 1982. Heavily influenced by Dell Hymes (see M-S 1993a), it is a socio-pragmatic model which views code alteration as an example of skilled performance par excellence. It includes an important ethnomethodological strand, namely, the idea that social meanings are constituted 'locally' rather than at a societal level. In the interactional framework, the focus is on the social significance of CS. Linguistic choices are viewed as discourse strategies, and social meanings as a product of discourse interaction, hence the name.

The recent alternative approaches to code alteration have been classified by M-S (1993a:64) into three categories: (1) the accidental/idiosyncratic approach, (2) the 'better-taxonomy' approach, and (3) the 'better-theory' approach. According to her, 'all of them stop short of organizing any listings or insights into a coherent and comprehensive theoretical framework'. However, some of her criticisms of the interactional framework and the 'better-taxonomy' approach are questionable. For instance, it is possible to see the merit of assessing each datum or interaction 'on its own terms' (59) although, as far as research is concerned, one must indeed 'believe in the possibility of generalizing across interactions, in order to build explanatory theories' (59). Yet, one can only generalize on the basis of language-specific or community-specific studies. How else could the markedness model have been devised?

After having carefully considered the applicability of each of these frameworks of analysis to the data corpus examined in this study, it was decided that an integrative approach, which draws largely on the markedness model, would best account for the data. M-S 1993a provides a detailed discussion of the weaknesses of the interactional framework, the accidental/idiosyncratic approach, the 'better-taxonomy' approach, and the 'better-theory' approach (see Kamwangamalu 1989a for a detailed discussion of perspectives on CM).

The markedness model is based on the idea that alternate code choices signal negotiations of identity between the participants. By using the term 'markedness', M-S expresses her belief that the bilingual's code choice is essentially a system of oppositions. According to her, 'speakers … choose their codes based on the persona and/or relation with others which they wish to have in place' (1989: 75). She observes that code choice mirrors the 'social relationships between speaker and addressee' (334). One might add that, in certain situations, the phrase, 'estimated social relationships' might be more appropriate, especially when the participants meet for the first time, or are not that familiar with each other. At some level, which M-S views to be typically subconscious, speakers select codes in order to negotiate 'relationships' in a particular exchange. What this entails, she maintains, is that a natural theory of markedness and indexicality constitutes 'part of the

communicative competence faculty of all humans' (334). Hence, audience and purpose appear to be decisive determinants in code selection.

M-S 1989 discusses four related motivations for CS in a single conversation: (1) sequential unmarked choices in which the CS is triggered by external or situational forces such as the introduction of a new topic, context or participant, (2) switching as an unmarked choice, as in in-group communication, especially in informal settings, (3) CS as a marked choice, generally associated with education and/or authority, and the introduction of social distance, usually through English, and (4) CS as an exploratory choice presenting multiple, as in non-conventionalized exchanges, or 'when meeting someone for the first time and when all the relevant social identity factors of the other person or other situational factors are not known' (338). The result, in the last case, is the 'presentation' of multiple identities by the speaker, until a code 'consensus' is attained. Unfortunately, the distinction between the first two is sometimes unclear (see data item (2)).

In discussing community constraints on CS, M-S 1989 makes several valid observations, such as the fact that CS is the unmarked choice only when both the speaker and the addressee share bilingual or multilingual identities in social groups signaled by the matrix and embedded languages, and only if the two or more memberships are positively evaluated by the participants (343). A prerequisite for such CS then is 'equal' linguistic status of the selected codes. Another valid observation M-S 1989 makes is that, in some 'Third World nations,' a former colonial language has been institutionalized, and is the active unmarked choice in conversational exchanges. This is particularly valid with respect to English, as exemplified in NE, and Indian English. In such communities, observes M-S, for the non-native speakers, 'English symbolizes membership in the group of educated persons having positions of authority. But because their other group memberships are also salient for them, they do not use English exclusively' (346). The present study illustrates the nature of code alteration in NE and the nuances of lectal CS and CM, still in need of investigation. It also demonstrates that this fully developed IVE does not by itself constitute a marked or unmarked code; only a variety of it does in a particular context.

M-S 1989 also observes that CS as either a marked choice or an exploratory choice is more structurally constrained, usually intersentential, and generally prefaced through suprasegmental cues, or via repetition of what has already been stated in the matrix code. This last observation is particularly valid in the case of Hindi movies, such as *Aina*, in which the actors and actresses often repeat in English what they have already stated in Hindi. Such repetition is also common in Indian literature in English, as the following example from Gita Mehta's *A River Sutra* illustrates:

Context: the narrator's Diksha[2] ceremony at a stadium, in which his renunciation of materialism is being celebrated, as is his official initiation into 'Jainhood' as a Jain monk.

> **Narrator**: I can feel the angry skepticism in the stadium even before I
> hear the yelled jeers below the podium on which I am standing with my
> father. *Arrey, Ashok bhai. O brother Ashok*, how will you live with-
> out your luxuries? No Rolls-Royce and driver to bring you home when
> you tire of your spiritual game, brother. Think again while you still
> have time.

In the above excerpt, the repetition of an address form in a second code is expres-
sive of both an appropriate transliteration and of the Indian culture of address. In
general then, M-S 1989 illustrates how different types of CS are 'predictors of the
functional allocation of linguistic varieties ... and of intergroup attitudes' (345).

Although it is the most recent model proposed, the markedness model has its
shortcomings, which explains why it was not selected in its entirety for the pre-
sent study. Take, for instance, the difficulty of assessing whether an instance of
CS or CM constitutes a marked or unmarked choice, especially in the case of data
drawn from written text. Does a code have to be (un)marked? How about in
'chance' or minor service encounters such as buying a newspaper or groceries? By
categorizing all instances of code alteration as either marked or unmarked, one
perpetuates the monolinguistic either/or fallacy, which makes the process behind
code alteration appear more conscious than it really is. Arguably, codes could be
neutral choices (see data items (9) and (10)). That is, in certain situations, CS/CM
appears to be triggered not so much by a specific goal, as by the mere availability
of more than one code in the bilingual's repertoire.

Another problem with the markedness model is that it is terminologically
loaded. It implies a normative framework in which 'through the weight of fre-
quency of its use for a particular interpersonal balance in a particular exchange, a
code becomes associated with encoding that balance' (M-S 1989:334). Unfor-
tunately, the frequency of the interactional encounter — which appears to be a
crucial determinant — is overlooked. Following 'perceived community norms'
then ensures the selection of the unmarked code, according to M-S. Some ques-
tions that come to mind include: what are the 'perceived community norms', and
who determines them? On the whole, the markedness model provides a rather gen-
eralized ethnography of communication approach to CS/CM which downplays the
structural patterns of code-switched and code-mixed utterances and how these re-
late to the grammar of the two codes. However, this particular weakness does not
make it inapplicable to the present study. Instead, as the present study presents a
pragmatic account, the functional focus of the markedness model makes it a par-
ticularly applicable strand in the integrative model employed. Another appealing
aspect of the markedness model is that it places linguistic power in the hands of
the code-switcher/mixer who, in the course of code alteration, reveals multiple
identities, and ultimately determines, via his/her code choice, whether a
(predominantly) power or solidarity relationship will prevail in a conversation.

The integrative model is an eclectic one that draws largely on the markedness
model and in part, on others including Michael Halliday's 'socially realistic'
model of text analysis (see Halliday 1964, 1978; Halliday and Hasan 1989) which

analyzes discourse in terms of its FIELD, TENOR, and MODE, the functional model of code alteration developed by B. Kachru 1978, 1983 and others; and the interactional framework, in particular the idea that all meaning is 'situated' (see Hymes 1962). Some ideas have also been borrowed from SPEECH ACCOM-MODATION THEORY (SAT), such as the idea that a speaker's code choice may be triggered by his/her desire to accommodate to or diverge from his/her addressee(s), an idea that appears to underly the markedness model. The integrative model is a pragmatic one, in the sense that it is data-driven. Romaine's (1989:65) just-ification for her interpretive, functional approach sounds most appealing. As she puts it, 'The pragmatic approach does not generate a predictive model. Unlike grammatical analysis which produces rules, it is interpretive'. In the present study, too, it is important to emphasize relevant aspects of different approaches.

5. Functions of code-switching in Nigerian English

An examination of the data reveals that, like oral CS in multilingual speech communities (see McClure 1992:186), in the written medium, CS in NE is gener-ally initiated and employed by the educated Nigerian, and is used for a wide range of functions, notably role shifts, the (dis)establishment of shared identity, clarif-ication and elaboration, emphasis, the expression of humor, sarcasm or irony, topic shifts, and overall stylistic effect. The primary goal is to alter participant roles, social distance, and social relations between participants. Often, the CS appears to simultaneously perform two or more socio-psychological functions, though one of these may be primary. This is common in written discourse, as was observed to be the case in the data analyzed in the present study. Hence, the examples provided in this section are not categorized under separate functional categories, as each ex-ample generally points at more than one possible socio-psychological trigger. It is for this reason that the categorization is open-ended.

5.1 The (dis)establishment of *Shared* Identity, and Stylistic Effect

In the examples provided below, the primary socio-psychological motivation for the switch, on the switcher's part, is his/her attempt to establish a shared iden-tity with the other participant(s), and to alter the social distance and/or social rela-tions in the different contexts of situation in which the interactions take place. The switches also have an added, stylistic effect in the texts.

5.1.1 Shared Identity and Style Shift

The markedness model was found to be able to account for several of the data items analyzed. For instance, (1) fits the description M-S (1989:338) offers for CS as a marked choice, which is 'a speaker-motivated negotiation to change the social distance in some way'. In line with SAT, the speaker accommodates to his ad-dressee. As NPE is an in-group lectal variety, its selection is indicative of the cus-toms officer's overt attempt to negotiate a solidarity relationship with Obi. However, Obi's shock, reflected in his unfriendly response, signals that the code switch was unsuccessful.

(1) Setting: Obi Okonkwo arrives in Lagos aboard a ship. The young customs officer accosts him and asks him to pay five pounds as 'duty' for his radio.

Obi: Right. Write a receipt for me. {acrolect}

Customs officer: *I can be able* to reduce it to two pounds for you. {mesolect}

Obi: How?

Customs officer: *I fit do it*, but you *no go get government receipt*. {basilect}

Obi: Don't be silly.

(Chinua Achebe, 1960:35)

CS Direction: Mesolect → Basilect
Code-switcher: customs officer
Textual Analysis:
Field: an interaction that focused on the 'duty' Obi is asked to pay for his radio.
Tenor: AGENT ROLES: a young Custom's Officer and a graduate from London (who has just returned home).

SOCIAL RELATIONS: hierarchic: Observe Obi's reproachful tone when he exclaims, 'Don't be silly.'

SOCIAL DISTANCE: hierarchic: The Custom's Officer attempts to reduce the social distance by switching first to the mesolect, and then to the basilect, but his attempt to do so fails, because Obi, the more educated participant, chooses to ignore the linguistic cue(s), as reflected in his consistent use of the acrolect.

Mode: speech.
Function(s) of the CS:

In this example, the customs officer's intent—to extort a *kola* ('bribe') from a *been-to*—prompts him to relax the formality of the social situation by switching to NPE (style shift), and thereby, to reduce the social distance between the two participants. Thus, the switch accompanies a shift in the officer's intent, and his desire to alter their role relationship. Yet, his attempt to change what can be viewed as the 'unmarked RO set' is futile. The CS is designed to establish a shared identity here, while simultaneously being used by Achebe for character development and stylistic effect. The customs officer's switch to NPE shows him to be a corrupt, conniving character.

Example (2) is harder to categorize in markedness terms. It appears to be exemplary of either CS as an unmarked choice or of 'sequential unmarked choices,' triggered by a change in participants or what can be termed the 'participant-structure' of the interaction. In a sense, the code-switcher (Beatrice) participates 'simultaneously' in two 'rights and obligations balances, each associated with a different social identity' (M-S 1993a:6). As Beatrice converses with each of the other two participants (Christopher and his cook), 'separately,' probably because of the hierarchical social relations between them (boss versus cook), she switches between two codes, the basilect and the acrolect, depending on which participant she addresses. In any case, as regards the interactional approach and in markedness terms, each of the two codes appears to be 'unmarked in the specific context for one of the identities' (337).

(2) Setting: Christopher's house. A conversation between Beatrice and Christopher .

Cook: Make I fix madame small sometin. Or sometain you wan go for hotel?
[Gloss: Let me fix a meal for you? Or do you intend to go to a hotel?]

Beatrice: No Sylvanus. We *no de go anywhere. We jus wan sidon for house. Make you take evening off. If at all Oga wan anything, I fit getam for am.*
[Gloss: We don't want to go anywhere. We just want to stay indoors. Please take the evening off. If the chief/boss needs anything, I will get it for him.]

     (A little later, after Sylvanus leaves).

Disgusting. I won't do that. Not for anybody.

Christopher: Don't worry, love. I won't ever ask you. ... But isn't that the whole point?

Beatrice: *Na Beatrice you de ask? Na me de tell tori, no be you*?
[Gloss: You're asking the wrong person. Am I telling the story or are you?]

         (Achebe 1987:63)

CS Direction: acrolect → basilect (in both interactional circles)

Code-Switcher: Beatrice, a qualified university-educated Nigerian (First Class Honors, London).

Function(s) of the CS:

In (2), the first time Beatrice switches to NPE, she does so to establish a shared identity with Sylvanus, the Cook; that is, to reduce the educational/social distance between them. The second time she codeswitches to NPE, in her conversation with Christopher, an educated Minister, NPE facilitates the expression of intimacy in a relaxed speech style. It is noteworthy that, in the text from which this example was excerpted, Beatrice usually speaks to Christopher in the acrolect, and sometimes in NPE (in relaxed situations), but always switches to the basilect when she responds to Sylvanus, Christopher's Cook. Both Beatrice and Christopher represent modern, and educated intellectuals. They switch back and forth between the acrolect and/or mesolect, and NPE, unlike Sylvanus, the Cook, who is a traditional, 'uneducated' Nigerian, who speaks only the basilectal variety of NE. That Beatrice switches to the basilect (NPE) with Christopher only after the cook leaves is a clear index of the intimacy NPE encodes for her in this particular context of use.

5.1.2 CS as an Exploratory Choice Presenting Multiple Identities

This category label has been borrowed from the markedness model because of its applicability to a portion of the data analyzed. In interactions such as (3), CS functions as 'an exploratory choice' (M-S 1989:338) that presents the multiple linguistic identities of the code-switcher. This particular conversation represents a 'non-conventionalized' exchange in which the participants meet each other for the first time, so 'all the relevant social identity factors of the other person or other situational factors are not known' (M-S 1989:338).

(3) **Setting**: Beatrice's house. A soldier comes to pick Beatrice up to honor the President's invitation to dinner.

Agatha (the maid): one soja-man from President house de for door; he say na President sendam make he come bring madam.

> [Gloss: A soldier from the President's house is at the door. He says the President sent him to pick up madam.]

Beatrice: Tellam make he siddon. I de nearly ready.

> [Gloss: Tell him to have a seat. I'm almost ready.]

CS Direction: acrolect → basilect

Code-switcher: Beatrice.

Functions: clarification, and literary effect.

> (Beatrice walks into the sitting room. She sees the soldier standing and apologizes for the maid's lack of hospitality.)

Soldier: No be like dat, Madam. Your girl polite *well well*. She tell me make I siddon, she even ask wetin I wan drink. So no be her fault at all, Madam. Na me one refuse for siddon. You know this soja work na stand-stand work e be.

> [Gloss: That's not the case, Madam. Your maid is very polite. She asked me to sit down; she even asked what I would like to drink. So it's not her fault at all, Madam. I was the one who refused to sit down. You know the nature of a soldier's work; it requires a lot of standing.]

Beatrice: OK. You are taking me to the Palace? I am ready. {acrolect}

Soldier: Ah Madam. No be Palace we de go. Na for Palace dem tell you?

> [Gloss: Madam. We are not going to the Palace. Did they say you would be going to the Palace?]

Beatrice: What? *Na where we de go*? {basilect}

Soldier: You mean to say dem no tell you? *Wonderful*! Na for President Guest House for Abichi Lake na there dem say make I take you.

> [Gloss: You mean to say they didn't tell you? That's surprising. It's to the President's Guest House next to Abichi Lake that they said I should take you.]

<div align="right">(Achebe 1987:66)</div>

CS Direction: basilect (with Agatha) → acrolect (initially with the soldier) → basilect.

Code-switcher: Beatrice, an educated Nigerian .

Field: A conversation that begins with the subject of politeness and changes to the subject of the (venue of the) Presidential dinner.

Tenor: PARTICIPANT ROLES: Beatrice, a graduate, and a young soldier.

> SOCIAL RELATIONS: hierarchic. Note the soldier's use of 'Madam' when he addresses Beatrice.

> SOCIAL DISTANCE: mid-way between minimal and maximal; decreasing gradually (when Beatrice code-switches).

Function(s) of the CS:

Beatrice initially employs the acrolect probably to establish formality (and distance), or perhaps because she assumes that it is the code expected of her. However, when the soldier responds with the basilect, she 'borrows' the cue and

reciprocates (a reflection of her personable character). Beatrice's acceptance of the basilect signals her acceptance of 'the balance of rights and obligations' indexed by NPE. Again, her code choice mirrors her accommodation to two different addressees. According to M-S (1989:339), this particular example 'highlights the interaction of CS as a negotiation of identities; while any speaker can switch to any code, for the negotiation to succeed requires that the addressee reciprocate with this code'. In SAT terms, the speaker accommodates to her addressee.[3]

5.1.3 Elaboration, and emphasis — CS as a sequential unmarked choice

A few of the data items analyzed in this study exemplified the use of CS as a sequential unmarked choice. In (4), Minister Sam Okoli's switch to NPE constitutes an example, in the sense that he switches from one unmarked code — the acrolect (the expecte' code in this interaction between intellectuals) — to another one when he initiates a topic switch.

(4) **Setting**: Obi and Clara have been invited to the house of the Minister of State, 'Honorable Sam Okoli.'

    Sam Okoli: Come in, Clara. Come in, Obi. That is a lovely car. How is it behaving? Sit down. Anywhere. And tell me what you will drink. {acrolect}*Lady* first; that is what the white man has brought. I respect the white man although we want *them* to go. … {mesolect}

    Obi: What an enormous radiogram! {acrolect}

    Sam Okoli: (pressing the record button) You will hear our conversation, every thing … *White man don go far. We just de shout for nothing.* {basilect}

    Achebe's view: Then he seemed to realize his position.

    Sam Okoli: All the same, they must go. *This no be them country.* {basilect} [Gloss: The white man has gone very far. We just keep shouting for no reason at all. After all, this is not their country.]

                                        (Achebe 1960: 69)

CS: Acrolect interlarded with elements of the mesolect → basilect → acrolect → basilect

Code-Switcher: The Minister of State (highly educated).

Textual Analysis:

Field: A conversation which begins with an exchange of formalities and borders largely on Western technology and the colonialist.

Tenor: AGENT ROLES: Sam Okoli, Minister of State and Obi, Secretary to the Scholarship Board.

        SOCIAL RELATIONS: somewhat hierarchic

        SOCIAL DISTANCE: mid-way between minimal and maximal.

Mode: Speech: Obi consistently uses the acrolect, shifts to a form interlarded with elements from the mesolect, then shifts to the basilect and back to the acrolect.

Function(s) of the CS:

The Minister of State, an educated Nigerian, switches to NPE when the topic shifts. He code-switches to NPE because of its appropriateness to his purpose: to establish the shared identity of the participants as Nigerians (CS expresses exclusiveness), as opposed to the opponent—the colonialist—outside their group. In addition, the switch to NPE helps him clarify, elaborate upon, and, most importantly, emphasize the extent of his professed patriotism.

5.1.4 CS as a Marked Choice

Data item (5) exemplifies two kinds of CS: CS as a marked choice (the acrolect), and as an unmarked choice (NPE), both within a single speech event.

(5) **Setting**: A meeting of the Umuofia Progressive Union has been scheduled for that afternoon. Joseph (a civil servant) calls Obi (a 'tight' friend) to remind him of the meeting.

Joseph: You will not forget to *call for* me? {mesolect}

Obi: Of course not. Expect me at four.

Joseph: Good. See you later {acrolect}.

Achebe: Joseph always put on an impressive manner when speaking on the telephone. He never spoke Igbo or Pidgin English at such moments. When he hung up, he told his colleagues:

'*That na my brother.* {basilect} Just *return* from overseas. {mesolect} B.A. (Honors) Classics.'

He always preferred the fiction of Classics to the truth of English. It sounded more impressive.

Colleague: What department he de work?

Joseph : Secretary to the Scholarship Board.

Colleague: E go make plenty money there. Every student who wan' go England go de see am for house.

Joseph: *E no be like dat. Him na gentleman. No fit take bribe.*

Colleague: (in disbelief) Na so. [Gloss: is that so? Really?]

(Achebe 1960: 77)

CS Direction: acrolect → basilect

Code-switcher: Joseph (educated)

Textual Analysis:

Field: a conversation about Obi, and a statement on corruption in Nigeria.

Tenor: AGENT ROLES: Joseph, a Civil Servant, and his colleagues.

SOCIAL RELATIONS: symmetrical

SOCIAL DISTANCE: nil

Mode: speech

Function(s) of the CS:

In (5), when Joseph first responds to his colleague's question, he uses the acrolect, clearly a marked choice—judging from his language use in other settings—but not because he wishes to establish distance. As Achebe notes, Joseph speaks formal, Standard English (the acrolect and mesolect) when he speaks on the phone; at such moments, he adopts a professional role. Joseph's use of the acrolect

appears to represent a momentary attempt to 'disidentify with the balance of rights and obligations in effect' (M-S 1989:338). At this point, his code choice represents an attempt to distinguish himself from his addressees, to diverge from them (in line with SAT). His switch to NPE helps in the establishment of a shared (ethnic) identity with his townsmen (a reduction of the social/educational distance), and in an appropriate role shift. It also represents a desire to (re)accommodate to their code usage. A switch to NPE signals an accompanying role shift; he then 'behaves' like an Umuofian with whom his townsmen can easily identify. In functional terms, NPE is also used here for clarification and emphasis, that is, to stress Obi's honesty and integrity as a civil servant.[4]

Example (6) illustrates how CS in NE is sometimes used for the expression of humor and sarcasm, as well as for literary effect. The CS to NPE is, once again, exemplary of CS as a marked choice, in so far as it appears to be unexpected (in the formal setting), although, rather than being used for the alteration of the social distance between the participants, it is used here for the expression of humor and sarcasm.

(6) **Setting**: a somewhat informal cabinet meeting at the Presidential Palace.
Attorney-General: The Honorable Commission for Words. That's a good one. By God that's a good one.
Commissioner for Education: Opposed! It sounds much like me.
Attorney General: That's me. Commissioner for Words and Commissioner for Works. There's a point there.
Prof. Okong: Theologically speaking, there's a fundamental distinction.
Commissioner for Education: Ah, *Professor done come-O*! {basilect}[Gloss: There/Wow! Here comes the Professor with his explanations again!]

(Soyinka 1966:3)

CS: acrolect → basilect
Code-switcher: the Commissioner for Education (a Member of Parliament)
Textual Analysis:
Field: a Cabinet deliberation in which Prof. Okong's speech style is ridiculed.
Tenor: AGENT ROLES: the Attorney-General, Commissioner for Education, and Professor Okong.
SOCIAL RELATIONS: symmetrical.
SOCIAL DISTANCE: nil.
Mode: speech.
Function(s) of the CS:
The Commissioner for Education is being humorous and sarcastic when he exclaims in NPE, 'Ah, Professor done come-O!' The switch to NPE enables him voice his reaction to what appear to be frequent and, in his opinion, overly philosophical observations made by Professor Okong, without offending the Professor.

5.2 Functions of code-mixing in NE (intralectal CM)

As in the case of CS, the shared identity factor appears to be the primary motivation for intralectal CM in NE, as exemplified by the following examples.

Other reasons were found to include: (1) the appropriateness or greater explicit-ness of the guest 'lect', (2) a shift in speech style, role relations or topic(s), (3) clarification or elaboration, and (4) emphasis, in addition to (5) an intended liter-ary effect. The first example illustrates all five. In the examples, the instances of CS are underlined, while the CM is dotted. The CM in (7) represents a marked choice aimed at accommodating to the addressee and establishing solidarity with him.

(7) **Setting:** Outside Ikem's house. The taxi Ikem called for Elewa has arrived. He makes a show of studying the taxi driver's face with a flash light, to assure Elewa that she will be safe.

   Driver: I beg make you no flash light for my eye. Wayting? {basilect}
      [Gloss: I beg you not to flash a light in my eyes. What's the problem?]
   Ikem: I want to be able to recognize you in the morning. {acrolect}
   Driver: For sake of what? {basilect}
   Ikem: For nothing. Just in case.
   Driver: Na him make I no de gree come for dis una bigman quarter. Na so so wahala. (Yoruba word for 'serious trouble')
      [Gloss: It's because of people like him that I don't like coming to this *bigman's* residential area. This is how troublesome it can be.] (*Na so so Wahala* = Equating functor (*Na*) + adverbial reduplication (for added intensification + NP).
   Ikem: Do you know it is an offense to *operate* a vehicle without interior lights, according to Criminal Code Chapter 48 Section 16 Subsection 106?
   Driver: (frightened): Na today—even na jus' now as I de come here de light quench out.
      [Gloss: As a matter of fact, it happened today — in fact, just now, as I was coming here, the lights went out.]
   Ikem: OK. Tomorrow morning, first thing, *make you go for mechanic fixam proper.* {basilect}
   Driver: OK, *Oga* . (Yoruba word for 'chief' or important person)

                                                              (Achebe 1987:34)

CM: acrolect (host) → basilect (the guest lect).
Code-mixer: Ikem (editor)
Textual Analysis
Field: A discussion of the treatment the taxi driver was given in the 'Bigmen's' den and the so-called Criminal Code violation.
Tenor: PARTICIPANT ROLES: Ikem, editor, and an anonymous taxi driver.
       SOCIAL RELATIONS: hierarchic
       SOCIAL DISTANCE: starts out as maximal, then reduces slightly when Ikem brings in the basilect
Mode: speech
Function(s) of the CM:
    By mixing the basilect in his predominantly acrolectal speech, Ikem can suddenly adopt the role of a 'friend' in his interaction with the frightened taxi driver; NPE is more appropriate for Ikem's new purpose—to make the driver feel at ease again, and to make him grasp the importance of getting his interior lights

fixed (clarification and emphasis). The code-mix also enables Ikem reduce the so-
cial distance between him and the driver (as they have been conversing in differ-
ent 'tongues') and in SAT terms, to accommodate to his repertoire. Ikem uses NPE
to identify with the driver, and to allay his fears. The shared lectal variety is meant
to establish something of the form: 'we speak the same tongue'.

In both (8a) and (8b), the Superintendent (hereafter, SI) code-switches/mixes
according to his purpose and audience.

(8a) Setting: At the Traffic Police Office. Ikem has gone to pick up his insurance
papers (seized by a constable the previous day).
Superintendent: (SI) *I never meet you before,* in person, Sir. {mesolect}
Very pleased to meet you, Sir … I was expecting a huge fellow …
Ikem: No, I am quite small, Anyone who feels like it can actually beat me up
quite easily.
SI: Oh no. The pen is mightier than the sword. {acrolect} With one sentence
of your sharp pen, you can *demolish* anybody … {mesolect} I respect your
pen, Sir … What can I do for you, Sir?
(Ikem recounts the incident at Harmony Motel during which a
Constable seized his papers on the grounds that he had not turned on
his parking lights.)
SI: What kind of nonsense job is that? To go about *contravening* important
people. {mesolect}
[To the orderly]: Go and bring me at once everybody who was on road duty
on Saturday night.
(A little later, eight Constables march in.)
SI: (to them): Do you know this gentleman? (They shake their heads). *How
you go know?* {basilect} Stupid ignoramuses.[5] Who contravened him on
Saturday night? {mesolect}
1st Constable: Na me, Sir [Gloss: It was me, Sir.]
SI: Na you! But how you know, sef? How? When you no de read newspaper.
You pass standard six, sef?
[Gloss: You! Don't you know who this man is? But how would you
know? When you don't read newspapers. Did you complete grade six,
sef?] (*Sef* is a particle in NPE that expresses doubt or disbelief.)
Constable: Yes, Sir.
SI: Na lie. Unless na free primary you pass. {basilect}
[Gloss: That's a lie. Unless of course you had a free primary education,
which is   very unlikely.]
SI: This man is Mr. Osodi, the Editor of the *National Gazette.* Everybody in
the country knows him except you. {acrolect} So you *carry your stupid
nonsense* and go and *contravene* a man of such caliber. Tomorrow *now* if he
takes up his pen to *lambast the police* (mesolect), you *all go begin complain
like monkey wey im mother die* … {basilect} Go and bring his particulars
here on time, stupid *yam-head.* {mesolect}
[Gloss: Now tomorrow, if he writes something bad about the police,
you'll all begin to complain like a monkey whose mother has died.]

CM/CS: mesolect → acrolect → mesolect → basilect → acrolect → mesolect (in the interaction with the constables)

Code-mixer/switcher: The Superintendent, an educated Nigerian.

(8b)

> **SI**: Now all of you listen well. {mesolect} You see this man here, *make una look im face well well*. [Gloss: study his face very carefully]. If any of you go out tomorrow and begin to fool around his car, {mesolect} *I go give the person proper gbali gbali*. (Yoruba word for 'treatment'). You understand? {mesolect/acrolect}

> (Achebe 1987:77).

CS: mesolect → mesolect interlarded with the basilect → mesolect interlarded with the basilect and a (guest) Yoruba noun.

Code-switcher: The Superintendent.

It is interesting to observe that the SI uses the acrolect with Ikem, the Editor and yet, with the constables, he uses all three lectal varieties, especially the basilect (depending on his speech goal). He switches suddenly from the basilect to the acrolect: 'This man is Mr. Osodi ... ' probably to sound formal (a style shift) and to emphasize the importance of his words. He appears to be observing the Nigerian belief that a *big man* or *Oga* (a Yoruba word for a respected male, particularly one in a position of power) deserves to be introduced with respect. This entails use of the acrolect. Then the SI switches back to the basilect, to clarify and emphasize the consequences of meddling with a person of such standing as the Editor. Again, he is most accessible to the Constables when he utilizes the code with which they are at home, viz. NPE. In (8b), the SI mixes in NPE in the second clause, because it is more expressive than the acrolectal or mesolectal equivalents. Clearly, *Make una look im face well well* means more than the act of scrutinizing one's face for signs of mischief or other expressions; it is roughly equivalent to: he is too important to meddle with; that is, his face speaks for him, as any sensible constable should know. The use of reduplication—*well well* (common in NPE) is also noteworthy. Hence, in (8b), the SI's urgent desire to get his point across as clearly as possible accounts for the intralectal CM. The reduplication *gbali gbali,* especially when interlarded in the pidginized host form, sounds harsher than 'trouble,' so its use adds weight to the SI's warning and appears to represent a marked choice.

Data items (9) and (10) constitute examples of CM that the markedness model cannot account for. Yet the interactional framework and the socio-functional textual account provide an adequate interpretation.

(9) Setting: A crowd from Abazon, a drought-stricken province, has gathered outside the Presidential Palace.

> **Prof. Okong:** [to the President] If you ask me, Your Excellency, God does not sleep. How do we know that the drought that they are suffering ... may not be God's judgment for all the troubles they have caused and now they have the audacity to write Your Excellency to visit their Province and before

you can even reply to their invitation, they *carry their nonsense come your house*. I think, your Excellency that you are being too generous.

(Achebe 1987:5).

Host Variety: the acrolect.
Guest Variety: the basilect.
Textual Analysis:
Field: the presentation of Professor Okong's view of the Abazonians.
Tenor: PARTICIPANT ROLES*:* Prof. Okong and the President.
        SOCIAL RELATIONS: hierarchic
        SOCIAL DISTANCE: mid-way between minimal and maximal, evident in
        the form of address used.
Mode: speech.

In (9), by interspersing basilectal elements in the acrolect, Prof. Okong intentionally relaxes the formality of the situation, adopts the 'role' of a dutiful advisor, and gets his point across. The CM facilitates the expression of Prof. Okong's sentiments; in this case, resentment against the Abazonians. Here, CM is clearly used for clarification and emphasis.

(10) Setting: The Presidential Palace. Professor Okong (a sycophant) seeks the
    President's favor.
    Prof. Okong: Well, ´Your Excellency, I am sorry to be personal. But I
    must be frank. I believe that if care is not taken, those two friends of yours
    can be capable of fomenting dissaffection. {mesolect}
    President: That's fine, Mr. Okong. I deal with facts not gossip. Now run
    along and deal with that crowd … I have arranged for them to be entertained
    to drinks and *small chop*.

(Achebe 1987:19).

        (Small Chop (NP): NPE word for snacks with some food items.)
Textual analysis: [Refer to (9)].

In (10), Prof. Okong starts out in the acrolect, then mixes in the mesolect, because of its greater explicitness. The code-mixed utterance heightens the gravity of the problem being presented to the President. 'His Excellency,' the President, in contrast, obviously wishes to maintain a power relation, as exemplified by his (largely) acrolectal response. Moreover, he uses words that indicate his desire to emphasize his addressee's lower social status; for instance, 'Mr.' instead of 'Professor,' and he rebuffs the Professor in his statement: 'Now run along … .' Yet, his use of the guest item 'small chop' is purposeful; *small chop* refers to what one would offer the masses. Moreover, its use is likely to elicit a more favorable response from Prof. Okong; it is probably also meant to put him at ease again. In a sense, (9) and (10) represent neutral contexts; that is, not culturally loaded (see Y. Kachru 1989:313). In both examples, the participants are educated members of the Parliament, and use the acrolect frequently in their job context(s), yet they sometimes switch to the mesolect and/or basilect. The resultant discourse represents a neutral type of CS, in that it has no explicit purpose other than to portray the 'real' use of language in the workplace.

5.3 CM with Nigerian languages

In the case of interdialectal CM, the (shared) identity factor was not found to be the most important determinant. Instead, the CM was found to be dictated by the following factors, particularly the first: (1) the greater appropriateness or explicitness of the guest form(s), (2) the lack of a suitable (translation) equivalent, (3) clarification and / or elaboration, (4) emphasis (often via reduplication), and (5) stylistic purposes such as character portrayal. These socio-psychological functions are exemplified in the following examples. Again, the markedness model does not provide a proper analysis of these data items.

(11) **Setting**: Dehinwa's house. She returns home one night (with her drunk boyfriend, Sagoe) and finds her mother and aunt waiting for her.
   Aunt: Your mother's *aladura* had a vision concerning you. Your mother was worried.
   Dehinwa: What was this vision?
   Mother: He saw you brought to bed.[6] {mesolect} You gave me a grandson.
   Dehinwa: (smiling) Did he see the father?
   Mother: He didn't say. But people have been telling me that you are going with a northerner. {mesolect}
   Aunt: (interjecting). It has made us all very unhappy.
   Mother: Are men so short in town? Enh? {mesolect} Tell me Dehinwa. Are good-looking, decent men so hard to find that you must go with a Gambari? Don't you know what your name is that you even let yourself be seen with a Gambari? ... Sisi, better tell her what her father said ... God protect me. What sort of daughter have I born? {Mesolect} If I found a man in your house at any awkward hour, I will let him know that my father bears the name of Komolola.[7] A man in this house at midnight? I will cry ibosi on him.

Host language: English (mesolectal variety of NE)

Guest language: Yoruba

Guest lexical items: (a) aladura: (noun) meaning 'preacher' or religious advisor.
   (b) gambari: (noun) a derrogative Yoruba word for a Hausa/Fulani man. Its use is reflective of the acute problem of tribalism in Nigeria.
   (c) ibosi: (noun) a bitter curse.

Textual Analysis:

Field: an interaction in which Dehinwa is being reprimanded for her choice of a Hausa boyfriend.

Tenor: PARTICIPANT ROLES: Dehinwa (a graduate and urbanite), her mother, and her aunt (rural dwellers).
   SOCIAL RELATIONS: hierarchic because of the age gap and the culture of respect for one's Elders.
   SOCIAL DISTANCE: maximal, as signaled by her mother's threats and anger.

Mode: Speech.

The aunt draws on *aladura* either because she finds it a more appropriate choice than the closest English equivalent, or because she does not know of an English translation. Achebe portrays her as a minimally educated woman. Since she is a stickler for Yoruba customs and beliefs, *aladura* expresses the power and importance of the referent, and his predictions.

For similar reasons, Dehinwa's mother uses the derrogative word *gambari* more often than *northerner* to express her resentment and low esteem of northerners. *Gambari* conveys the gravity of Dehinwa's supposed folly—moving with a Hausa/Fulani man. Similarly, *ibosi* carries her strong resentment of such behavior, and is more suitable for this purpose than NE. Thus, such CM is dictated by the greater functionality of the guest code. It also adds a unique stylistic touch; it makes for a more creative, realistic and vivid portrayal of the characters in the text(s). Therefore, in addition to adding a local flavor to the text, and the clear characterization as modern (Dehinwa) versus traditional (her mother and Aunt), the guest (Yoruba) code is used to express certain attitudes and/or stereotypes. The traditional women are superstitious and conservative; they believe in the local traditions and prophesies of the *alladura*, and are obviously guilty of stereotyping the northerner (cf. *gambari* and *ibosi*). In short, they represent traditional values. In contrast, the westernized English-speaking Dehinwa represents the modern, urban girl, who is attempting to rise above tribalism.

In (12), Joseph uses *chi* because of its appropriateness.

(12) **Setting:** Joseph's house. He expresses his disapproval of Obi's response to the Chairman's question: 'Why do you want a job in the Civil Service? So that you can take bribes?'
Obi: (defensively) Nonsense! That's what I call colonial mentality.
Joseph: Call it what you like. You *know more book than me*[8] but I am wiser. {mesolect} I can tell you that a man does not challenge his chi to a wrestling match.

(Achebe 1960:72)

Guest Lexical Item: chi: Igbo word for 'personal god.' Every Igbo is believed to have a chi who shapes his/her destiny.
Host Language: (N)English (mesolect)
Textual Analysis:
Field: a discussion between two friends, on one's response to a shocking interview question.
Tenor: PARTICIPANT ROLES: Obi (a graduate from the University of London) and Joseph (a civil servant).
SOCIAL RELATIONS: non-hierarchic
SOCIAL DISTANCE: nil or non-existent
Mode: speech.

In (12), the Igbo lexical item *chi* conveys the potency of the personal god far more clearly than does the host code, along with the futility of challenging it. Moreover, it adds a local (religious) touch to the writing.[9]

6. Discussion: 'Mixer' types in Nigeria

The above examples reveal that code alteration in NE is of two types: CS and CM, and that both are frequently employed by Nigerians (educated and minimally educated), though CS is generally restricted to the educated Nigerian, probably because of his/her larger code repertoire in NE. Two kinds of CM have been shown to be frequent in NE: INTRALECTAL (between varieties of NE) and INTERDIALECTAL (involving at least one variety of NE and another language— indigenous or foreign). In the data, CM manifests itself as a systematic phenomenon which involves a careful integration of the grammatical systems of the guest and host codes involved.

The data have demonstrated that CS and CM are natural and functional phenomena in NE, even in written discourse, although the exact underlying sociolinguistic and psycholinguistic motivations for their use are sometimes unclear, which is not all that surprising when one considers the fact that CS and CM are largely subconsciously employed, as most bilinguals can testify. By sociolinguistic motivations are meant the more or less 'stable' and 'dynamic' factors as Myers-Scotton 1993a refers to them. The stable factors refer to situational variables such as age (of the participants), their level of education, the topic(s) of discussion, and the interactional setting(s), while the dynamic factors refer to whether a long-term or short-term relationship is involved, or whether power or solidarity is salient. The psycholinguistic motivations are more obscure because they are micro-level attitudinal or personal (usually subconscious) factors, not macro-level situational ones; hence, they are harder to determine. The intentionality of the code-switcher/mixer, or his/her psycholinguistic state, even if influenced by static and/or dynamic variables, can at best be speculated upon, as far as written discourse is concerned. In any case, even when spoken discourse is analyzed, self-reports regarding the use of CS/CM are not always reliable (see the collection of papers in Atkinson and Heritage 1984). As Gumperz (1970:58) rightly observes:

> [A]n individual's choice of speech style has symbolic value and interpretive consequences that cannot be explained simply by correlating the incidence of linguistic variants with independently determined social and contextual categories'.

In the present study, the sociolinguistic and psycholinguistic motivations behind the code alteration were determined from the texts from which the data was drawn (i.e., the narrator's descriptions of contexts, situations, characters, and the like). One shortcoming of this method, however, is that sometimes, such information, or the dynamic factors and their purpose(s) may not be clearly articulated.

CS has been found to be frequently dictated by a desire to establish intimacy, a shared identity, or exclusiveness. Such a function represents, in SAT, an attempt at divergence. In the case of CM, the choice of the admixed guest linguistic items is usually determined by the code-mixer's belief in their utility for his/her speech goal(s), particularly when (s)he wishes to emphasize a group membership, or even for the purposes of register identification, style-identification (see Kachru 1986), elucidation and interpretation (especially in cases where the host code is non-

English). In general, code-mixed and code-switched NE text exhibits formal cohesiveness and functional appropriateness. Cohesiveness refers to 'the integration of the units of another code into the system of the receiving code, and the organization of the units from the two codes into a semantic relationship' (Kachru 1978: 112-113). For details, see Annamalai 1971; Sridhar and Sridhar 1980; Kachru 1986; and M-S 1993b.

The data examined here illustrate that code alteration is more the norm than the exception in the Nigerian literary context and by extension, in the Nigerian society. As Nigerian literature closely reflects the nature of multilingualism and code usage in Nigeria, this finding in itself reflects the overall importance of CS and CM in NE. For an individual to feel linguistically comfortable in this highly multilingual community, s/he needs to be aware of the appropriateness of different codes in different contexts of situation; that is, s/he needs to know 'what is appropriate where' (Eastman 1992:7). Such knowledge, of the mapping of social contexts and codes could be conceptualized in markedness terms as deriving from a mental markedness dictionary of some sort, much like the one postulated in Goyvaerts 1992.

The data in the present study reveal that the most frequent kind of CS is from the acrolect (and mesolect) to the basilect (see items (2-8) in section 5), a finding that could be corroborated using a wider data corpus. For example, with the exception of data item (1), in which the code switch is from the mesolect to the basilect, in all of the six CS data items cited, the switch is from the acrolect to the basilect. This appears to be a result of the fact that most of the CS is initiated by the educated Nigerian, who has a good command of the acrolect—a stamp of education and the variety of NE s/he uses very frequently—and a fairly good command of one or both of the other lectal varieties of NE. That the directionality of CS is predominantly from the acrolect (followed by the mesolect) to the basilect reveals something about the social contexts in which code-switched utterances are employed and the socio-psychological functions they serve. For one thing, it demonstrates a clear attempt at speech accommodation or, in the absence of a power relationship, a desire on the part of the switcher or mixer to establish or ensure informality.

It appears that CS in NE is most frequently employed in less formal situations or rather, that it is the most frequently employed means of relaxing the formality of particular contexts of situation (see items (3) to (5)) and of, thereby, facilitating the expression of shared identity or in-groupness, and familiarity or intimacy (via NPE). CS allows for speech style shifts, or the use of what in Joos' 1961 speech scale are referred to as the intimate, casual and consultative speech styles rather than the formal and frozen speech styles[10] characteristic of the acrolect. The casual and consultative styles are both colloquial styles. According to Joos (1961:23), the former is generally adopted for friends, acquaintances, insiders. 'Addressed to a stranger,' he observes, 'it serves to make him an insider simply by treating him as an insider'. It is characterized by absence of background information and no reliance on the listener's participation. In other words, it is assumed that the listener will understand without such aids. The consultative

speech style is considered the norm for 'coming to terms with strangers' (23), and the 'intimate' speech style, as its name suggests, 'excludes public information' (29). In the present study, a switch from the acrolect to the basilect yields the casual speech style, while a switch from the acrolect to the mesolect introduces the consultative style.

In his article, 'The Study of Language in its Social Context', Labov (1972:189) says of CS: 'Without any clear idea of categorizing this behavior, we are forced to speak of "stylistic variants" … What is a style if not a separate subcode?' This observation is validated in the present study. On careful examination, a relational network relating CS and CM to shifts in speech styles, and a scale or range of socio-psychological motivations can be diagrammed. In fact, as Yamuna Kachru (1989:312) rightly notes, in some cases, 'code-switching or mixing uniquely characterize certain styles, registers or religious contexts'. See also Kachru 1978, 1982.

A switch from the acrolect to the mesolect is generally accompanied by a shift in speech style from the formal/frozen to the consultative, and a desire to reduce the formality of the situation somewhat, without becoming overly intimate. In other words, it appears to be dictated by a socio-psychological desire to be more interactive or personal. Along the same lines, a switch from either the acrolect or the mesolect to the basilect, or from the acrolect through the mesolect to the basilect (in descending order) is generally marked by a corresponding change in speech style from the frozen/formal through the consultative, to the intimate. Richards 1979 acknowledges that the lectal forms have corresponding speech styles associated with them, when he observes that:

> The favored speech style for formal communication, the *acrolect,* can be regarded as the rhetorical norm of the community. The speech variety accepted for informal communication, the *mesolect,* can be regarded as the communicative norm of the community … The acrolect represents the idealized rhetorical norm for the community and the mesolect may represent an actual communicative style but is scarcely recognized as a norm. (7-8)

Though the data examined here reveal that CS is predominantly initiated from the top to the bottom of the lectal and speech style continuum, in a few of the examples, at some point after the initial, downward switch, CS occurs midway in the discourse in the opposite direction, from the basilect (sometimes through the mesolect) to the acrolect, this time usually accompanied by a shift from the intimate end of the speech style upwards (in ascending order) and back to the formal speech style. Again, this depends on the interactional setting, speech goal(s), age and social status of the speaker and addressee(s), and other social variables. Data item (8a) is exemplary of this kind of directionality switch; after initially switching to the basilect, the Superintendent switches back to the acrolect, a switch probably triggered by a corresponding switch in his speech goal(s). In effect, there appears to be a cline in interactional contexts, from formal to intimate (for details, see Joos 1961:19). The relationship between CS in NE, accompanying

speech style switches, and socio-psychological functions (the most likely trigger) can be diagrammed as in Fig. 2. The arrows in Fig. 2 specify the directional possibilities and the associated speech styles and socio-psychological motivations.
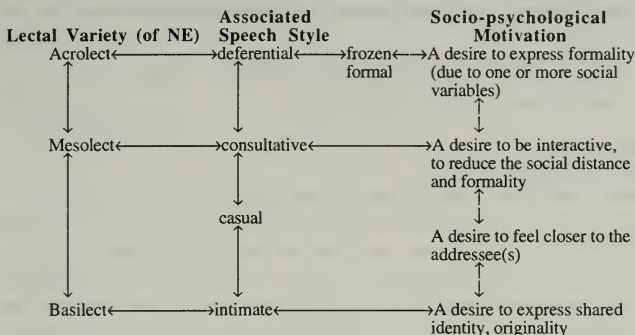

Fig. 2: The Correlation between CS, Speech Style, and Function

The same can be illustrated of intralectal CM in NE. According to Bokamba (1988:53), 'CS appears to be triggered and constrained by the same conditions that apply to CM'. CM could be triggered by a desire to express intimacy, style identification, or group membership, as when basilectal lexical items are interlarded in acrolectal or mesolectal host structures and thereby accompanied by a corresponding switch in speech style, or CM may be dictated by a desire to express a degree of formality, either as a result of the subject matter being discussed (the register identification function) or for some other reason, in which case guest acrolectal items may be inserted in a basilectal or mesolectal host structure and there is a noticeable shift in speech style, in the general direction of formality. This is also quite common in Hindi movies and in Indian literature in English.

As regards interdialectal CM, in which NE is the host language and the guest code is an indigenous language, there is a perceptible change in speech style, generally in the direction of casualness or shared identity (refer to the data items in section 5) and usually motivated by the desire to emphasize certain sentiments such as regret, gratitude, and respect, in a close, cultured or cultural manner (cf. Agheyisi 1977) or to fill in lexical gaps the speaker experiences[11], or else to sound more appropriate and oftentimes, to reduce the social distance between the participants. When an indigenous language is the host language and NE the guest language, as in the example below, the English items (underlined) are employed for their appropriateness.

(13) **Setting**: A nightclub. Egbo, in love with Simi watches her as he drinks. A small boy approaches him for the seventh time and whispers something in his ear:

Egbo: Yes, yes bring another. Whisky this time.
Boy: O ti *sah. Madam* ni npe yin.[Gloss: No, Sir. Madam is calling you.]
Egbo: Enh?
Boy: *Madam*. Won ni npe yin wa. [Gloss: Madam. They[12] are calling you to come.]
Egbo: Go on. Which madam? Where? Where?
Boy: Nta. Won wa nnu *taxi_... Change* yin, *sah* ... [Gloss: Outside. They are in the taxi. Here's your change, Sir.]

(Soyinka 1966:58)

Host language: Yoruba
Guest Language: English
Guest Lexical items: Madam, Sah (for Sir), taxi, change.

Examples such as (13) typify an indigenized discourse style, what Kachru 1986: 160 refers to as 'Yorubaization' (and 'Igboization' in Achebe's works).

The use of (Nigerian) English guest items is generally accounted for by the subject matter at hand which, if foreign or technical in nature, may require the use of terms from what is currently the most lexically and technologically advanced language in the world — English — which may be best suited for the speaker's purpose, namely, the purpose of elucidation and interpretation (see Kachru 1986). The use of code-mixed English could be determined by the speaker's desire to sound formal if s/he speaks in the capacity of an official.

This study has revealed that the different lectal varieties of NE are not class-based or restricted to certain sectors of the society (although their use is generally associated with certain differentially educated sectors) but are, in fact, used interchangeably by educated speakers of NE. Evidence for this finding derives from their ability to code-mix and code-switch from one variety to another, as the context requires.

Most, if not all the CS in literature in NE (but not the CM) was found to have been initiated by the educated speaker of NE, suggesting that s/he has access to a greater number of linguistic codes and, hence, a larger code repertoire or sociolinguistic communicative competence (cf. Fishman 1969; Hymes 1971) in NE than other Nigerians in the urban setting who usually use just the basilect (cf. Mathias in *The Interpreters;* the taxi driver in *Anthills of the Savannah*; Obi's cook and so on).

The present study can, in a sense, be viewed as a testing ground for the markedness model, and the predictions that follow from it (see M-S 1993a:153-154). In any case, it confirms at least two of the predictions, viz. that 'when faced with choosing paths, the majority of speakers will follow the known path and make unmarked choices, thereby maintaining the status quo in the rights-and-obligations sets in which they participate' (153), and that educated Nigerians tend to utilize CS as an 'interpersonal strategy' (154).

The educated Nigerian (multilingual and multidialectal) appears to possess as many (internal) grammars as the number of dialects/languages s/he knows, in line with the general view on this matter (see Macnamara 1967; Paradis 1978; Sridhar

and Sridhar 1980; Poplack 1980; Kachru 1982; Woolford 1983; Bokamba 1988). S/he commands a network of codes which are 'functionally allocated in terms of their social uses' (Kachru 1986:78), and is aware of the costs and rewards of alternate choices. The code-repertoire of the educated Nigerian (code-mixer/switcher) is roughly represented in Fig. 3.
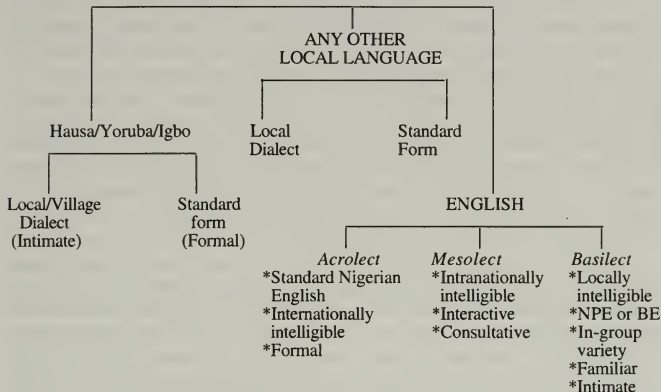

Fig. 3: The Code-repertoire of the educated Nigerian

In other words, the code/style repertoire of the educated Nigerian encompasses most or all of the linguistic codes employed by the community within its 'communication matrix' which refers to 'the totality of communication roles within a society' (Gumperz 1968). Hence, s/he has some competence in several codes, depending, as Yamuna Kachru (1989:312) rightly observes with respect to a parallel example of the educated Hindi speaker in the Hindi-speaking area of India, on 'specific societal roles of the individual', or the social setting of the interaction. In the case of the educated Nigerian, the codes include the local dialect, the regional standard, Standard Hausa, Yoruba, Igbo, Arabic (in religious contexts in the north), and the lectal gamut of Nigerian English.

The data suggest that the linguistic repertoire of the Nigerian multilingual consists of two or more distinct grammatical systems (of the dialects/languages s/he knows) and that s/he can access them sequentially, as in the case of CS or simultaneously as in CM (see Bokamba 1988. In simple terms, when there is little or no interaction between the grammars (or sub-grammars), the resultant speech is monolingual but 'when there is interaction between them as a result of simultaneous access, triggered by the CONTEXT OF SITUATION, the speaker produces code-mixed speech' (Bokamba 1988: 50).

The internal grammars, or the internalized or mental grammar(s) of the code-switcher/mixer appear to be somewhat distinctive yet interactive systems. The ex-

act points or linguistic levels at which the interaction occurs is not all that clear, although such interaction is certainly most evident at the levels of phonology (evident in several instances of pronunciation spelling e.g., *sah* for 'sir'), and lexico-semantics (especially among nouns from the three major grammatical systems), as the data reveals.

The host code provides the underlying syntactic structure into which guest linguistic items are inserted (see examples (11) and (12)), most likely through the ASSEMBLY LINE PROCESS suggested by Sridhar and Sridhar 1980 which involves a stage of lexical item selection from each of the codes and insertion in appropriate nodes, followed perhaps by a pre-surface syntactic structure check. However, the data in this study do not throw light on the exact nature of such a pre-surface syntactic check. Hence, this matter will not be investigated further here. What is noteworthy is that the educated speaker of NE is a bi/multidialectal who has command over two or more varieties of NE and one or more other languages. It is this ability which permits him/her to code-switch and code-mix, in accordance with changing contexts of situation.

While the educated Nigerian can be said to be actively aware of the linguistic sub-varieties that have developed within NE, as reflected in the ease with which s/he code-switches and code-mixes, the Nigerian with a minimal but functional knowledge of NE can, in a sense, be said to possess a passive knowledge of these sub-varieties. In other words, s/he can comprehend the different lectal varieties, but either cannot speak them or does not feel comfortable speaking the acrolectal and mesolectal varieties. This passive knowledge is evident in his/her ability to process utterances in the acrolect and mesolect (cf. the speech of Mathias in *The Interpreters*, and of stewards, maids, cab drivers, market women, and messengers in the other texts), that is, in his/her ability to respond appropriately to educated Nigerians who start out by using the acrolectal/mesolectal varieties with them but who usually code-mix or code-switch when they have placed the speech of their listeners, even though they respond almost always in the basilect. An example of this is data item (2) in section 5. In (2), the soldier only converses with Beatrice in the basilect — NPE — even though she initially uses the acrolect ('Okay... I am ready'). In one sense, then, the educated Nigerian counts as a multidialectal (speaker of NE) while the less educated Nigerian is generally a mono- or bi-dialectal speaker of NE. What this study suggests then is that the educated Nigerian has a larger verbal code repertoire[13] in NE than the minimally educated Nigerian whose knowledge of NE is generally restricted to the basilect.

This study has shown that CS and CM are important stylistic devices employed by Nigerian novelists, and it is interesting to examine how creative writers (particularly in the New Englishes or multilingual societies) exploit the style repertoire in their writing (see Y. Kachru, 1989). In Achebe's *No Longer at Ease*, for instance, the linguistic shifts are largely reflective of Obi's predicament and final alienation. CS and CM aid in character portrayal; they help differentiate the educated from the less educated or 'uneducated' since the former generally use the acrolect (in official settings) and yet are capable of CS and CM to the mesolect or basilect, depending on which variety they decide to use. In this sense, then, they

hold the trump card since they decide when and where to code-switch. In *No Longer at Ease,* Obi, Clara and Christopher are classic examples of educated Nigerians, as are the social commentators in Soyinka's *The Interpreters* and Christopher, Ikem and Beatrice in *Anthills of the Savannah.* Such characters demonstrate, through the kinds of linguistic code(s) they use and their facile attempts to code-switch/-mix, 'a wide range of competence, varying from a pidginized variety to what might be called ambilingualism' in the words of Kachru (1983:213).

In her insightful 1989 article, Yamuna Kachru identifies the South Asian writer's range of 'style repertoire' as consisting of the following linguistic codes: (a) internal to the area, (b) externally imposed, (c) dialectal, (d) stylistic, (e) registral, and (f) religious. According to her, the writers can choose to write in one of the codes, or to employ the devices of CS and CM. Hindi creative writers are demonstrated to employ different codes, for a variety of functions, e.g., (1) adding a 'local' flavor to the language/text, (2) character identification, (3) the presentation of character-type, or (4) clues for a specific sociocultural or religious context, and (5) the ranking of characters or events on different scales: traditional-modern, rural-urban, and unsophisticated/sophisticated. Her observations can clearly be extended to the Nigerian context. Thus, the style repertoire of the Nigerian writer can be represented similarly, the regional code referring to other national or regional languages, including Fulfulde, the externally exposed code being none other than English or NE, the dialectal forms being region-specific (e.g., the Kano, Zaria and Kaduna dialects in the case of Hausa), the registral codes journalese, legalese and the like, Arabic for Islam, and English for religious purposes.

The use of different codes (usually via CS and CM) by Achebe and Soyinka, for instance, illustrates the multiple purposes for which they can be utilized. CS and CM (particularly interdialectal CM), apart from adding a distinctive local 'flavor' to the texts, aid in character portrayal (both type and rank). Thus, Achebe and Soyinka employ CS and CM for two major reasons: (1) to highlight the polylectal speech situation in Nigeria (the use of language as a mirror of society) and (2) to portray differences in character. Generally, both writers use the acrolect in the narrative mode, which acts as a background 'against which the "mesolect" and "basilectal" forms are employed in the foreground' (Bamiro 1991: 8).

5. Implications and conclusion

The relevance of such a study to pragmatics, sociolinguistics, and general linguistics is manifold. As regards the theoretical implications, studies such as this one are significant in terms of what they have to offer as regards the grammar of the bidialectal and multilingual. As English has cut across cultures and languages in an unprecedented manner, such studies provide useful data which can constitute the basis for future comparative studies. A study such as the present one promises to provide insights into the bilingual's discourse in general, and the educated Nigerian's discourse in particular.

From the present study, it is clear that code alteration is 'as much a social and discourse phenomenon as a structural or purely linguistic one' (Eastman 1992:8).

The code-mixed and code-switched text analyzed in this study exhibit formal co-hesiveness and functional appropriateness. Moreover, code alteration has been demonstrated to be quite frequent in Nigeria. So, for an individual to feel linguistically comfortable in this multilingual community, s/he needs to be aware of the appropriateness of different codes in different contexts of situation.

This study consolidates the results of earlier studies which have aimed at 'publicizing' NE, by providing evidence of the use of NE in literature in NE in the form of lexical innovations such as compounding, calques, Nigerianisms, figurative language, loan translations, invectives, panegyrics, and the like and, most important of all, CM and CS. In this sense, then, it re-examines Nigerian English and highlights the need to recognize it as not merely a distinctive, fully developed, and legitimate variety of English, but as a variety with distinct sub-varieties (as exemplified by the existence of varieties of NE and further consolidated by the persistence of CM and CS). Thus, it has important implications for the renewed study of the indigenized varieties of English in general, and NE in particular. The lectal varieties feature highly in the speech and writing of its multilingual and multidialectal citizens, and the frequency of CS and CM, in which English is a major constituent, testifies to the importance of the phenomenon of code alteration in Nigeria, as well as to the international status and increasing linguistic power of English in its various facets.

For quite some time, linguistic codes have been shown to function as markers of styles and registers. In the case of NE, it is quite clear that 'a great deal of variation has an important stylistic function' (Greenbaum 1975). The present study has also shown that NE provides important insights for a better understanding of code alteration. For instance, via and by virtue of the lectal gamut of NE, it has shown that CS and CM are not restricted to inter- and intra-language levels, or even to inter- and intra-dialectal levels alone; they also have an important lectal domain of 'operation' worth considering, especially in the case of IVEs, whose users are prototypical bilinguals. Similar studies should be carried out for other IVEs in the outer circle to see whether the same holds for them.

What is clear is that CM and CS are not be restricted to discourse involving bilingualism, as is generally believed to be the case (cf. Timm 1975; Pfaff 1976; Di Pietro 1976; Lipski 1977; Sridhar 1978; Kachru 1978, 1983), as they frequently appear in discourse involving bidialectalism, as exemplified by CM and CS in NE (cf. the parallel of BEV versus Standard American English).

Finally, this study has implications for the study of the role and place of Nigerian Pidgin English (NPE). It reveals that NPE is the most commonly used 'code-switched' variety in casual speech. Its frequency of use typifies what is referred to as CS as an unmarked choice, in the markedness model. There is little doubt that this variety currently lacks the status it deserves, considering its prominent role in speech (see Mafeni 1971; Shnukal and Marchese 1983), especially among university students in Nigeria. Its use is widespread, irrespective of the educational attainment of its speakers. This paper, therefore, also calls for a de-

stigmatization of Nigerian Pidgin English. Future studies could and should initiate a change of attitude towards NPE.

Further studies could also reveal interesting differences in the use of CM and CS between native and non-native English-speaking societies, as reflected in differences in the use of CM and CS in both kinds of societies, which could point at differences in power structure. They could, for instance, reveal that, unlike in the native English-speaking environments (such as the USA and the UK) where the speaker of the Restricted code or basilectal equivalent does most of the CS, and not the speaker of the standard language who does not have (or even wish to have) access to the 'lower' variety, in the context of IVEs, it is the speaker of the acrolectal variety who code-mixes and code-switches most often into the 'lower' or basilectal variety, as (s)he has a larger linguistic repertoire. One is tempted to ask, How many educated Americans know (and use) Black English Vernacular? Studies will probably reveal that most do not even understand it.

The data have demonstrated that the use of CS and CM has added CREATIVITY to NE. The term creativity is being referred to here in two senses: the bilingual's creativity, and the literary creativity code alteration adds to Nigerian Literature. In the first sense, this creativity is evident in the rapidity and systematicity with which the bilingual Nigerian can intricately switch/mix two or more codes in a manner which 'holds' meaning for both the speaker and the addressee. As Myers-Scotton 1993a:154 puts it, 'No matter how creative speakers themselves may be in engaging in CS, their choices can be effective only if they can count on a relatively common interpretation of the intention of specific choices ... their interpretation is socially constrained'. Moreover, the use of different lectal varieties and African languages, and the manner in which they are adeptly interwoven by Achebe, Ola Rotimi and a host of other Nigerian writers, to yield and portray the African linguistic and cultural fabric is remarkable and artistic. In a sense, code alteration in Nigerian literature is one of the primary means via which the local flavor is transmitted to literary texts, making for Nigerian Literature. It stamps the English used in Nigerian literature with a unique 'meaning potential' (see Halliday and Hasan 1989). In other words, it helps transmit and encapsulate Nigerian culture. As Bokamba (1987:39) rightly argues:

> To process sentences from one language requires one type of skill or level of knowledge; but to process sentences from two or more languages simultaneously requires special knowledge because of the complexity involved. This special knowledge, call it ability 2, can be understood by extending the domain of linguistic investigation to code-mixed and other multi-lingual data.

Indeed, CS and CM serve as crucial rhetorical strategies via which Nigerian writers have expanded the linguistic dimensions of the English language, by successfully transposing meaningful discoursal patterns from their native languages and cultural and literary traditions, to make it expressive of the Nigerian socio-cul-

tural and linguistic identity. CS and CM must have contributed in the development of NE, as they probably still do.

Apart from providing insights into the bilingual's discourse, the present study contains data that could be of considerable use in a comparative study of contexts of mixing, which should equip us with a better understanding of the bilingual's discourse. In general, code alteration in NE mirrors the functional multilingualism and, by extension, functional multidialectalism in operation in the Nigerian (urban) social milieu. At any rate, a more detailed study, based on a more comprehensive corpus is needed to corroborate the findings of this study.

NOTES

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[1] By educated Nigerian is meant the Nigerian who has had the benefit of a college or tertiary education (and who has, therefore, had extensive exposure to several varieties of NE).

[2] *Diksha* literally refers to initiation into the field of learning, i.e. when one chooses a guru and the guru declares him to be his student.

[3] Once again, the markedness model, the interactional approach, and SAT provide a suitable explanation of CS in the example provided below. Since Obi, the protagonist in *No Longer at Ease* rarely uses NPE, his switch to it is somewhat unexpected. Yet, judging from his character, his choice of NPE appears to be dictated by a desire to establish or negotiate a rapport with the Secretary, who has addressed him in NPE. For the negotiation to succeed, he has to reciprocate with the same code, and he does so. The result is a code consensus. In the process of CS to NPE, Obi reveals his multiple linguistic identity, or what was referred to in the paper as the fluid code syndrome.

Setting: Obi's office. Obi has just finished talking to Miss Tomlinson, his boss' English Secretary, in impeccable English. The receptionist calls to inform him that a gentleman would like to speak to him.
    Obi: A gentleman? Send him up, please. (A few seconds later). *He wan speak to me there?* {basilect}. All right. *I de come down now now.* {basilect}
      [Gloss: Alright. I'm coming down right now.]

(Achebe 1960:88)

CS: acrolect → basilect → acrolect → basilect
Code-switcher: Obi Okonkwo, an educated Nigerian.
Function: the establishment of shared identity, and literary effect.
Textual Analysis:
Field: an informative exchange in which Obi is informed that he has a visitor.
Tenor: AGENT ROLES: Obi, Secretary to the Scholarship Board, and a receptionist.

SOCIAL RELATIONS: somewhat hierarchic.
SOCIAL DISTANCE: mid-way between minimal and maximal, and decreasing gradually (when Obi codeswitches).

Mode: speech.

4 Below is another example:

Setting: At Ikem Osodi's house. He is having a dispute with his girlfriend, Elewa, who does not want to leave.

Ikem: Look here, Elewa, I don't like people being difficult for no reason at all. I explained this whole thing to you from the beginning. Didn't I? {acrolect}

Elewa: You *explain* what? (mesolect). I beg you, *no make me vex* ... Imagine! Hmm! But woman *don chop sand for dis world-o.* But *na we de causam; na we own fault.*

[Gloss: What did you try to explain? I beg you, don't annoy me. Just imagine! Women are always made to suffer in this world. But we caused it; it is our own fault.]

Ikem: I don't know what you are talking about.

Elewa: How you go know? You no fit know ... Imagine! To put a girl for taxi at midnight *to go and jam* with *arm* robbers in the road.

Ikem: You know very well, Elewa, that there are no more armed robbers in Bassa.

Elewa: The woman *dem massacre for Motor Park last week na you killam.*
[Gloss: As for the woman they killed at the taxi park last week (it's as I thought), you killed her.]

Ikem: Nobody will kill you, Elewa. ... My battery is down. {acrolect}

Elewa: (imitating him) Nobody will kill you Elewa. Why your battery *no down for afternoon* when *you come pick me*?
[Gloss: Why wasn't your battery down when you came to pick me up this afternoon?]

Ikem: Because you can manage a weak battery in the daytime ... {acrolect}

Elewa: *Take your mouth comot my mane, ojare* ... {basilect}
[Gloss: Don't utter my name again, Ojare. *Ojare* = Yoruba word (noun) expressing annoyance, and intimacy]

Ikem: *I no want make you join all the loose women for Bassa who no de sleep for house.* {basilect}
[Gloss: I don't want you to join all the loose women in Bassa who don't sleep in their houses.]

(Achebe 1987:33)

CS: Elewa: mesolect → basilect → acrolect → basilect

Ikem: acrolect → basilect

Textual Analysis:

Field: a dispute in which Ikem attempts to convince Elewa that she should go home.

Tenor: PARTICIPANT ROLES: Ikem, editor of the *National Gazette*, and Elewa, a college graduate.

> SOCIAL RELATIONS: symmetrical
> SOCIAL DISTANCE: minimal/nil

Mode: Speech

Function(s) of the CS: In this example, Ikem finally switches to NPE to get his point across more readily; NPE is best suited to his purpose (to convince Elewa to leave), as it is the lectal variety she uses. Ikem realizes that the only way to make Elewa comply with his request is for him to speak in her 'tongue.' He therefore adopts the role of an advisor by codeswitching to NPE, and thereby emphasizing the consequences of her decision to stay with him. Thus, CS is used here primarily for clarification and emphasis.

 ⁵ Note the redundancy characteristic of the mesolect.

 ⁶ This NE idiom translates to 'deliver a baby'.

 ⁷ Roughly equivalent to the Brahmin of Yorubaland.

 ⁸ Interdialectal CM (of NPE).

 ⁹ Another example is provided below:

Setting: Obi's house. Clara's revelation.

> **Clara:** I can't marry you.
>
> **Obi:** I don't understand you, Clara. Why can't you marry me? What's the matter, Clara? Tell me.
>
> **Clara:** (weeping) I am an osu. So you see, we can't get married.
>
> (Later that night, in Joseph's apartment.)
>
> **Joseph:** Anyhow, you are lucky to know at the beginning. No harm is done yet. The eye is not harmed by sleep.
>
> **Obi:** I am going to marry her.
>
> **Joseph:** What! ... Look at me. You know book but this is no matter *for book*. Do you know what an osu is? But how can you know? What sort of encouragement will your action give to the poor men and women who collected the money?
>
> **Obi:** It was only a loan, remember. I shall pay it back to the last *anini*.
>
>   (Achebe 1960:76)

Host Language: (N) English (mesolect)   **Guest Language:** Igbo

Guest lexical items: *osu* (noun) and *anini* (noun)

> (a) *osu*: Igbo word used for an 'untouchable' or outcast.
>
> (b} *anini*: Igbo word for a farthing.

Probable Reason for use: APPROPRIATENESS: *Osu* expresses Joseph's shock and bitterness regarding Obi's proposed action of marrying an *osu*, obviously an abomination in the Igbo society (cf. Obi's fathers view of Clara's father and family):

> I know Josiah Okeke very well. He is a good man and a great Christian. But he is osu ... Osu is like leprosy in the minds of our people (127).

Anini carries greater conviction than *farthing*. It also voices Obi's vehemence and annoyance at Joseph's insulting remarks. Both guest items, apart from adding a local flavor to the interaction, express a shared (ethnic/cultural) identity between

the participants, which might also account for why they both draw on them to express their deepest concern for the issue at hand.

Several examples of the use of CM (particularly of lexical items) because of the lack of translation equivalents can be found in Indian literature. An example is provided below:

Context: A teacher's observation of a place close to the banks of the River Narmada
Narrator: Near the tram stop, the *paanwallah* smearing lime paste onto his paan leaves always shouted from inside his wooden stall, 'Master! Master! Let me give you a *paan*'. (Mehta, 1993: 54)

Guest lexical item : *Paan*: a much-loved, digestive made from betel leaf, lime paste, and crushed areca nut. It is frequently eaten after meals and usually offered first to visitors in villages. When chewed, it turns reddish and is generally spat. *Paanwallah* refers to the person who prepares and sells *paan*. The Hindi suffix *-wallah* refers to a person who is an expert in the trade mentioned in the prefix.

[10] Or the casual and intimate speech styles in Halliday's tripartite style scale. The formal and frozen styles are referred to as the deferential speech style in Halliday's analysis

[11] As when a speaker cannot think of an (appropriate) host equivalent for a certain local item or expression, e.g., *oyinbo* in Yoruba, *bature/ iya* in Hausa, *Olorun* etc. (see Soyinka 1966).

[12] The plural pronoun form is used to express respect. Plural pronoun forms are used to refer to the elders, women, the rich and the powerful (e.g., the *Oga*s, *Alhaji*s, *Hajiya*s, and Madams).

[13] As used here, the term Verbal Code Repertoire refers to the total range of linguistic codes members of a speech community have at their disposal, for interaction with others (cf. Kachru 1986). It is this (ability) that enables multidialectal/multilingual members of the speech community to code-shift and code-mix as they please.

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SENTENCE-FINAL PARTICLES IN JAPANESE
— AN ALTERNATIVE TO SCALAR ANALYSES

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Japanese sentence-final particles (SFPs) show the speaker's attitude toward what is being said. Previous analyses of SFPs claimed that the difference among SFPs lay in the degree of strength of the speaker's conviction toward the illocutionary force of the sentence to which they were attached. This kind of scalar approach is problematic because it is not explanatory, and it incorrectly assumes that SFPs show different degrees of strength of the same attitude.

This paper shows that SFPs reflect different sorts of attitude. Yet the facts that motivated the scalar analyses follow from the pragmatic principles that govern the use of each SFP. Thus, the pragmatic principle approach correctly captures the uses of SFPs and is more explanatory than the scalar approach, in which a scalar ranking is stipulated.

1. Introduction

In Japanese, there is a set of lexical items called sentence-final particles (SFPs) which convey the speaker's attitude toward what is being said. SFPs have no denotations and do not contribute to the truth-conditional meanings of utterances.

(1) a. **yo**
          Taroo wa uta   ga   umai   **yo**.
                  TP singing SB   be good at[1]
          'Taro sings well, (I tell you).'

      b. **zo**
          Taroo wa uta ga umai **zo**.
          'Taroo sings well, (damn it)!'

      c. **wa**
          Taroo wa uta ga umai **wa**.
          'Oh, Taroo sings well.....'

      d. **sa**
          Taroo wa uta ga umai **sa**.
          'Taroo sings well, (naturally).'

      e. **ne**
          Taroo wa uta ga umai **ne**.
          'Taroo sings well, doesn't he?'

As can be seen in (1), all the sentences have the same truth-conditional meaning: they are true if Taroo has the property of singing well. But the SFPs in (1) are

used to express different attitudes of the speaker. Since SFPs convey the speaker's attitude toward the utterance, and an utterance with a SFP is more appropriate in one context than another, pragmatic factors, such as beliefs, intentions and goals, are essential in interpreting an utterance with SFPs.

Previous analyses of such particles as *zo*, *ze*, *sa*, *yo*, *wa*, *ne*, and *na* claimed that the difference among these particles lay in the degree of strength of the speaker's insistence (Uyeno 1971) or in the degree of strength of the speaker's conviction toward the illocutionary force of the sentence to which they were attached (Kendall 1985). This paper discusses the problems of such scalar analyses and introduces an alternative approach in which the pragmatic principles that govern the use of each SFP are characterized independently.

2. Scalar approach

This section shows what motivated scalar analyses and describes two scalar analyses. Then, why scalar analyses are problematic for analyzing SFPs will be discussed.

2.1. What motivated the scalar analyses

The SFPs, *wa*, *yo*, and *zo*, appear to show similar attitudes of the speaker and differ only in the degree of the speaker's insistence in making the addressee believe what the speaker believes. When *wa*, *yo*, and *zo* occur after the same statement, what is common among the different uses is that the speaker is stating what the speaker believes to be true. What differs among the statements with different SFPs is that the speaker seems to be insisting to the addressee to differing degrees that the addressee should believe that the proposition expressed by the statement is true. For example, in (2), the speaker is stating that it's raining.

(2) a. Ame ga futte iru   **wa**.
         rain SB fall PROG
         'Oh, it's raining.....'

     b. Ame ga futte iru **yo**.
         'It's raining, (I tell you).'

     c. Ame ga futte iru **zo**.
         '(You have to know) it's raining.'

The speaker sounds more insistent with the utterance in (2b) (with *yo*) than with the one in (2a) (with *wa*). Similarly, the speaker sounds more insistent with (2c) (with *zo*) than with (2b) (with *yo*). Thus, some SFPs appear to show similar attitudes, and these particles differ in the degree of the speaker's insistence that the addressee believe what the speaker believes.

2.2. Uyeno 1971 and Kendall 1985

This fact — that some SFPs appear to have similar function and seem to differ only in degree — motivated scalar analyses such as Uyeno 1971 and Kendall 1985. Uyeno and Kendall each propose a scale on which SFPs are ordered by degree, in addition to the conditions for each SFP. Uyeno claims that the particles

wa, yo, zo, ze, sa make a scale according to the degree of the speaker's insistence. Kendall claims that SFPs differ in the degree of the speaker's conviction toward some illocutionary force determined by other elements in the utterance and by context.

2.3. Problems of the scalar analyses

This kind of scalar approach is problematic. 1) The scalar approach stipulates where each particle is placed on a scale, and cannot explain why the particles are ordered that way as opposed to another. 2) The scalar analysis incorrectly assumes that SFPs show different degrees of strength of the same attitude. However, each particle reflects a different attitude, not a different degree of the same attitude, as will be shown in the following section.

This paper shows that *yo, zo,* and *wa* reflect different sorts of attitudes of the speaker. Yet, the different degrees of insistence follow from the difference in the three pragmatic principles that govern the use of each particle. Since the fact that motivated the scalar analyses follows from independent use conditions, the approach in which each SFP is characterized independently is more explanatory than the scalar analyses, which merely stipulate a scalar ranking.

3. Independent principle approach

As argued below, the use of *yo, zo,* and *wa* is governed by the principles in (3), (4), and (5), respectively.

(3) *Yo*-principle
The use of the particle *yo* reflects the speaker's belief that the addressee is not committed[2] to the state of affairs denoted by the propositional content of the statement or directive[3] preceding the particle.

(4) *Zo*-principle
The use of the particle *zo* reflects the speaker's belief that the addressee does not believe the proposition expressed by the declarative sentence preceding the particle and it is necessary for the addressee to believe the proposition to be true .

(5) *Wa*-principle
The use of *wa* with falling intonation[4] indicates that the speaker represents the utterance preceding *wa* as giving an insight into the speaker's private mental life.

As can be seen in (3-5), the three particles are about different sorts of attitudes. *Yo* and *zo* are about the speaker's belief about the addressee's belief, and *wa* does not make any reference to the speaker's belief about the addressee's belief and focuses on how the speaker represents his utterance.

3.1. The particle *y o*
3.1.1. Non-occurrence when the speaker and the addressee have shared beliefs

The *yo*-principle entails that the use of *yo* reflects the speaker's belief that the addressee does not believes the proposition expressed by a statement to be true.

Thus, the *yo*-principle predicts that *yo* will not be used when the speaker believes that the addressee also believes that a proposition is true (i.e., the speaker and the addressee share a belief). For example, if the two students have walked several miles to get to their dormitory because they missed a bus, complaining to each other that they hate to walk such a long way, they share the belief that they walked a long way. Consequently, they can say the following without *yo*, as in (6).

> (6)   Kyoo wa takusan aruita.
>   today TP a lot   walked
>   'We walked a lot today.'

If *yo* is added to the utterance in (6), the speaker sounds like he thinks his friend does not think they have walked a long way. The speaker sounds like either he believes the addressee believes the opposite of what he thinks (i.e., the addressee believes they did not walk a long way) or the addressee does not know anything about what the speaker is saying.

Similarly, by using *yo* with a directive, the speaker represents himself as believing that the addressee will not perform the action unless the speaker makes the directive. Thus, *yo* is predicted not to be used when the speaker believes the addressee is willing to perform the action and is likely to perform the action without the speaker's directive. For example, when a mother who always tells her child to take a bath before he goes to bed, tells him to take a bath, she can make the directive without using *yo*, as in (7). This is because the mother thinks her son is willing to take a bath as usual and all she has to do is to tell him when to take a bath.

> (7)   Ofuro hairinasai.
>   bath   enter(command)
>   'Take a bath.'

If *yo* is used after the utterance in (7), the mother sounds like she thinks her son is not willing to take a bath that night and she is trying to convince him to take a bath. Thus, the use of *yo* becomes appropriate when the mother tells her son to take the bath for the second or third time. From the fact that the son did not follow the mother's first directive in (7), the mother can tell that the son is not committed to the action. Therefore, the utterance with *yo (Ofuro hairinasai yo)* is more appropriate than the one without *yo* when the speaker makes the same directive to the same addressee for the second or third time.

3.1.2. Occurrence when the addressee has not considered the proposition or action

Since by using *yo*, the speaker represents himself as believing that the addressee is not committed to the propositional content of the statement or directive, it is predicted that *yo* can be used when the speaker believes the addressee has not had chance to form any belief or intention about the proposition or the directed action.

For example, a student A, who does not usually say anything when he comes back to his room, may say something with *yo* to his roommate B right after he

comes home in order to catch B's attention. Since the student A does not usually say anything, his friend B cannot have any belief about what A will say.

(8) Kyoo omoshiroi   mono   mita **yo**.
      today interesting thing   saw
      '**Hey**, I saw something interesting today.'

By using *yo*, the speaker highlights that there is a gap between what the speaker believes and what the speaker believes the addressee believes (i.e., the speaker believes the proposition, but the speaker believes the addressee has not considered the proposition). This act of highlighting the gap has the effect of catching the addressee's attention. Without *yo*, the student does not sound like he is trying to catch his roommate's attention and may sound like he is just talking to himself.

The *yo*-principle predicts that *yo* can be used after a directive when the speaker believes the addressee will not perform the directed action. The speaker cannot believe the addressee will perform the directed action when the addressee has never considered it. For example, the boy who came back to his dorm from school can ask his friend whether he knows about the fire that day by using *yo*, as in (9). In this case, the boy (the speaker) can use *yo* because he believes that his friend (the addressee) has never considered the directed action (i.e., to answer the boy's question regarding the fire).

(9) Kyoo no kaji no koto kiita ka **yo**.
      today GN fire GN event heard Q
      '**Hey**, did you hear about the fire today?'

If there is no *yo* in (9), the speaker does not sound like he is trying to get the addressee's attention when asking the question.

3.1.3. Occurrence when the addressee has considered the proposition or action but is not committed

Because by using *yo*, the speaker represents himself as believing that the addressee does not believe the proposition is true, it is also predicted that *yo* can be used when the speaker believes the addressee has considered the proposition but believes it to be false (i.e., the addressee believes the opposite of what the speaker believes). For example, the speaker can use *yo* when he tries to convince the addressee, who believes the opposite of what he believes, that the addressee is wrong and the speaker is right. For example, a father may use *yo* as in (10) to convince his daughter, who believes she can live her life as she pleases, that her belief is wrong.

(10) Yo no naka wa soo kattekimamani nara   nai **yo**.
      the world TP   selfishly   become not
      '**But**, you cannot always have in your way in the world.'

If *yo* is not used in (10), the speaker sounds like he is talking about what he believes others believe and does not sound like he is trying to convince his daughter that her belief is wrong.

The *yo*-principle predicts that *yo* can be used after a directive when the speaker believes the addressee has considered the directed action but does not want to do it. For example, when talking to the son who has been telling his mother he does not want to clean his room, the mother can order him to clean his room by using *yo*, as in (11).

(11) Sooji   shinasai   **yo**.
     cleaning do(command)
     '**As I told you**, clean your room!'

If there is no *yo* in the utterance of (11), the mother does not sound like she is ordering her son even if she knows he does not want to do it and sounds less persistent than where *yo* is present.

3.2. The particle *zo*

The *zo*-principle claims that the use of *zo* reflects the speaker's belief that the addressee does not believe the proposition expressed by the declarative sentence preceding the particle and it is necessary for the addressee to believe the proposition to be true.

Because the claim that the speaker believes that the addressee does not believe the proposition is the same as the claim for the use of *yo* after the statement, the *yo*-principle and the *zo*-principle are contrasted. Since both the *yo*-principle and the *zo*-principle state that the use of these particles reflect the speaker's belief that the addressee does not believe the proposition, the *zo*-principle makes the same predictions as the *yo*-principle. Like *yo*, *zo* is predicted not to occur when the speaker believes that the addressee also believes the proposition to be true. Also, it is predicted that *zo* can be used when the speaker believes the addressee has not had a chance to form any belief about the proposition, and when the speaker believes the addressee has considered the proposition but believes it to be false. Therefore, *zo* is predicted not to occur in the shared walk situation (6), while it is predicted to occur in the out-of-the-blue reporting situation (8), and in the situation where the father convinces his daughter who has a belief contrary to his (10).

Since the *zo*-principle makes the extra claim that the speaker believes that the addressee needs to believe the proposition, it is predicted that the speaker explicitly tries to get the addressee to believe what the speaker believes with *zo*. The following three sections show that while *yo* and *zo* are predicted to occur in the same situations, their effects are different.

3.2.1. Non-occurrence when the speaker and the addressee have a shared belief

Neither *yo* nor *zo* is predicted to be used in a situation where the speaker and the addressee share a belief that they walked a lot that day, as in (6) and (6').

(6) Kyoo wa takusan aruita. (#**yo**)
    today TP a lot   walked
    'We walked a lot today.'

(6') Kyoo wa takusan aruita. (#**zo**)
'We walked a lot today.'

When *yo* and *zo* are actually used in such a situation, there are contrasting effects. With *yo*, the speaker sounds like he is talking to the addressee, who does not believe they walked a lot. On the other hand, with *zo*, the speaker sounds like he is trying to get the addressee to believe they walked a lot.

3.2.2. Occurrence when the addressee has not considered the proposition

It is predicted that either *yo* or *zo* can be used in a situation where the speaker believes that the addressee has not considered the proposition. Thus, *yo* or *zo* can be used in a situation where a speaker, who does not usually say anything, tells the addressee something when he comes home, as in (8) and (8'). Either *yo* or *zo* has the effect of catching the addressee's attention. If *yo* or *zo* is not used in (8) or (8'), the speaker does not sound like he is trying to catch the addressee's attention and may sound like he is just talking to himself.

(8) Kyoo omoshiroi mono mita **yo**.
     today interesting thing saw
     '**Hey**, I saw something interesting today.'

(8') Kyoo omoshiroi mono mita **zo**.
     'I saw something interesting today! (**come and listen**)'

Even though either *yo* or *zo* can be used in a situation where the addressee has not considered the proposition, there are contrasts in effects between the two particles. The difference between the *yo*-principle and the *zo*-principle predicts that with *zo*, the speaker explicitly tries to get the addressee to believe what the speaker believes. Thus, the contrasts between *yo* and *zo* are most evident in a situation where it is important to affect the addressee's belief. One such situation is where the speaker is trying urgently to get the addressee to believe what he believes. For example, in case of a fire, a speaker who is trying to get people to evacuate may shout 'fire' with *zo*, but not with *yo*, as in (12) and (12').

(12) #Kaji da   **yo**.
      fire COP
      'It's fire (**I tell you**).'

(12') Kaji da   **zo**.
      'It's fire!!'

3.2.3. Occurrence when the addressee has considered the proposition but is not committed

It is predicted that either *yo* or *zo* can be used in a situation where the speaker believes that the addressee has considered the proposition but does not believe it to be true. Thus, either *yo* or *zo* can be used in a situation where a father is telling his daughter that he is right and she is wrong, as in (10) and (10'). Either *yo* or *zo* makes the speaker sound like he is trying to convince the addressee. If *yo* or *zo* is

not used in (10) or (10'), the speaker sounds like he is only stating what he be-lieves everybody believes.

(10) Yo no naka wa soo kattekimamani nara   nai **yo**.
the world TP   selfishly   become not
'**But**, you cannot always have in your way in the world.'

(10') Yo no naka wa soo kattekimamani nara   nai **zo**.
'**But, you have to know that** you cannot always have in your way in the world.'

Another situation where it is crucial for the speaker to affect the addressee's belief is where the speaker finds it necessary to convince the addressee urgently that the speaker is right and the addressee is wrong. For example, suppose two boys are doing an experiment for their chemistry class and one of them starts playing around with a dangerous chemical. If one of them tells his partner what they are doing is not a game, *zo* is preferred to *yo* because *yo* does not make any reference to the urgency of accepting the speaker's belief.

(13) #Kore wa asobi jya nai   **yo**.
this   TP game COP NEG
'I don't think this is a game.'

(13') Kore wa asobi jya nai   **zo**.
'This is not a game!!'

3.3. The particle *wa*

The *wa*-principle claims that the use of *wa* with falling intonation indicates that the speaker represents the utterance preceding *wa* as giving an insight into the speaker's private mental life. In other words, by using *wa*, the speaker makes it explicit that he is uttering something about his mental life: what the speaker thinks, feels, senses, concludes, decides to do, and so on.

When the propositions expressed by the declarative sentences are about the speaker himself (what the speaker thinks, feels, decides to do), as in (14-16), it is clear that the propositions represent the speaker's mental life.

(14) Watashi mo soo omou **wa**.
I   also so think
'I also think so.'

(15) (Watashi) kanashii **wa**.
I   sad
'(I) am sad.'

(16) (Watashi) moo iku **wa**.
I   now go
'(I) must go now.'

The speaker can present his private mental life even when the propositions ex-pressed by the declarative sentences are not about the speaker himself. The propo-

sitions may represent objective facts that are perceived by the speaker, as in (17-18). The fact that the speaker is making utterances like (17) and (18) in a certain situation implicates that the speaker perceived the fact and considers it to be relevant. But, by using *wa*, the speaker makes it explicit that the fact or its relevance has just become apparent.

> (17) Kyoo ano mise san ji   ni shimaru **wa**.
>   today that store three o'clock at close
>   '**Oh**, that store closes at three o'clock today.'

> (18) Konna tokoro ni ari ga iru   **wa**.
>   this   place at ant SB exist
>   '**Oh**, there are ants at a place like this.'

3.3.1. The relationship between the speaker and the addressee — distant vs. close

If the *wa*-principle is correct, *wa* will not be used in a situation where it is not appropriate for the speaker to reveal his private mental life to the addressee. One of the situations is when the speaker and the addressee are not intimate. For example, when a student who has been asking questions to her professor decides to leave the professor's office, the student will not use *wa*, as in (19), because if *wa* is used, the student sounds like she considers her relationship with the professor intimate enough for her to show her mental life.

> (19) Sorosoro shitsurei   shimasu.
>   soon   excuse myself do (polite)
>   'It's about time I leave.'

In contrast, if the speaker and the addressee are actually intimate, the speaker wants to make it explicit that the speaker is uttering something about his mental life to acknowledge that intimacy. For example, when a girl leaves her best friend's house after staying there for several hours, she can use *wa* as in (20).

> (20) Sorosoro kaeru **wa**.
>   soon   return
>   'I have to go home.'

If there is no *wa* in (20), the girl sounds cold.

3.3.2. What the speaker and the addressee are doing — mechanical vs. personal

Another situation where the speaker does not want to make it explicit that the speaker is opening his private mental life to the addressee is when the speaker and the addressee are engaged in something mechanical or something that requires objective statement. For example, when the speaker is participating in a comprehension test as a subject, and was asked to tell the experimenter whether or not he understands the items that appear on a screen, he will not use *wa* as in (21). In this situation, even if the subject and the experimenter are friends and even though the sentence is about the speaker's state of mind, the speaker will not use *wa*.

(21) Wakaru,   wakara   nai.
     understand understand   NEG
     '(I) understand (this), (I) don't understand (this).'

If *wa* is used in (21), the speaker does not sound objective, exposing his mental life, which is not relevant to the task. The inappropriateness of *wa* in the situation (21) is not just the fact that the speaker is using a SFP because during the experiment, the experimenter can ask for a confirmation to the subject whether he understood the certain item by using another particle *ne*, as in (22).

(22) Kore wakari   mashita   **ne**.
     this   understand (polite past)
     'You understood this, **didn't you?**'

Of course, if the speaker and the addressee are involved in an activity where they are expected to share their mental life with each other, *wa* can be used. For example, if the speaker has been listening to her friend who is having problems in her personal life, the speaker can use *wa* with a sentence with the same content as (21) to show that she really understands how her friend feels, as in (23).

(23) Wakaru   **wa**.
     understand
     '(I) know the feeling...'

If the speaker does not use *wa* in (23), she will sound cold, as if she did not feel for her friend.

3.3.3. Irrelevance of the speaker's belief about the addressee's belief

If the *wa*-principle is correct, by using *wa*, the speaker makes it explicit that he is uttering something about his mental life without making any reference to the addressee's belief. Thus, the speaker's belief about the addressee's belief is not relevant for the distribution of *wa*. In other words, *wa* can be used when the speaker believes that the addressee has a shared belief, when the speaker believes that the addressee has never thought about the speaker's belief, or when the speaker believes that the addressee has a contrary belief.

Thus, *wa* can be used in the shared walk situation. The speaker may use *wa* when he really feels he and the addressee walked a lot that day.

(6'') Kyoo wa takusan   aruita   **wa**.
     today TP a lot   walked
     'We walked a lot today......'

Without *wa*, the speaker does not sound like he feels that they walked a long way.

Wa can be used in the out-of-the-blue reporting situation. The speaker may use *wa* when he was impressed by the fact that he saw something interesting.

(8'') Kyoo omoshiroi   mono   mita **wa**.
     today interesting   thing   saw
     'I saw something interesting today.....'

Without *wa*, the speaker sounds like he is not impressed.

Wa can also be used in a contrary belief situation. The speaker may use *wa* to indicate to the addressee that he is speaking from his experience.

> (10") Yo no naka wa soo kattekimamani nara   nai **wa**.
>   the world   TP   selfishly   become   not
>   '**From my experience**, I feel you cannot always have in your way in the world.'

Without *wa*, the father sounds like he is just speaking what others believe and does not sound like he is speaking from his own experience.

Section 3.1. through 3.3. showed that *yo*, *zo* and *wa* reflect different sorts of attitudes. *Yo* and *zo* are about the speaker's belief about the addressee's belief — more specifically, *yo* makes reference to the speaker's belief about what the addressee does not believe, and *zo* makes reference to the speaker's belief about what the addressee needs to believe. And *wa* is about how the speaker represents his utterance. *Wa* does not make any reference to the speaker's belief about the addressee's belief.

4. Different degrees of insistence follow from the three principles

Section 3 showed that SFPs reflect different sorts of attitudes. Section 4 shows that even though SFPs show different kinds of attitudes, the facts that motivated the scalar analyses follow from the difference among the three principles.

4.1. The difference in the three hypotheses

The *yo*-principle states that when *yo* follows a statement, the use of *yo* reflects the speaker's belief that the addressee does not believe that the proposition is true. In contrast, the *zo*-principle states that the use of *zo* reflects the speaker's belief that the addressee needs to believe that the proposition is true. The *wa*-principle states that the use of *wa* indicates that the speaker is representing his utterance as an insight into his private mental life. Therefore, *zo* indicates more directly than the other two particles that the speaker believes that the addressee should believe that the proposition is true, and *wa* indicates least directly of the three that the speaker wants the addressee to believe what the speaker believes.

In example (2), (2c) is the most direct way and (2a) is the least direct way to indicate that the speaker believes that the addressee needs to believe it is raining.

> (2)   a.   Ame ga futte iru **wa**.
>   rain SB fall PROG
>   '**Oh**, it's raining.....'
>
>   b.   Ame ga futte iru **yo**.
>   'It's raining, (**I tell you**).'
>
>   c.   Ame ga futte iru **zo**.
>   '(**You have to know**) it's raining.'

With *zo*, the speaker indicates that he believes the addressee needs to believe that it is raining. With *yo*, the speaker can indicate that he believes that the addressee needs to believe it is raining only indirectly: By using *yo*, the speaker represents himself as believing that the addressee does not believe that it is raining. The fact that the speaker is stating that it is raining — something that the speaker believes the addressee does not believe — may implicate that the speaker believes the addressee needs to believe that it is raining. The use of *wa*, by contrast, is a very indirect way to indicate that the speaker believes the addressee has to believe it is raining: Using *wa* indicates that the speaker is expressing a thought that occurred to him when he perceived it was raining. Since the speaker is only revealing his thoughts, he is not trying to get the addressee to believe what the speaker believes directly. However, the fact that the speaker is stating that it is raining in the presence of the addressee may implicate that the speaker believes the addressee also should believe that it is raining.

4.2. Confirming evidence

All three particles can be used after a declarative sentence which has the illocutionary force of a statement. The difference among the three principles predicts which particle is more appropriate than the others in a particular situation.

The fact that *zo* indicates most directly, and *wa* indicates least directly, that the speaker believes that the addressee should believe that the proposition is true predicts that *zo* is preferred to *yo* or *wa* when the speaker urgently wants the addressee to believe that the proposition is true. One such situation is when the speaker is warning the addressee about something. If the speaker intends to warn the addressee that there are bees near the addressee, *zo* is preferred to *yo* or *wa*, as in (24a-c)

> (24) a.   Soko ni   hachi ga iru   **zo**.
> there LOC bee   SB exist
> 'There are bees there!'
>
> b.   #Soko ni hachi ga iru **yo**.
> 'There are bees there (**I tell you**).'
>
> c.   #Soko ni hachi ga iru **wa**.
> '**Oh**, there are bees there...'

Yo can be used to warn the addressee, but the use of *yo* is a roundabout way of warning the addressee. With *yo*, the speaker indicates that the addressee does not believe that there are bees near the addressee. The fact that the speaker states that there are bees close to the addressee — something the speaker believes the addressee does not know — may implicate that the speaker believes the addressee should believe that there are bees close to him. *Wa* is a very ineffective way to warn the addressee. Since with *wa*, the speaker is only indicating he personally has just realized that there are bees near the addressee and not making any reference to the addressee's belief, the speaker cannot directly affect the addressee's belief by using *wa*.

As shown, with *yo* or *wa*, the speaker can indicate that the addressee should believe that there are bees near the addressee, but cannot indicate this directly. Thus, having the choice among *yo*, *zo*, and *wa*, if the speaker urgently wants the addressee to believe that there are bees near the addressee, he uses *zo* instead of *yo* or *wa*.

The difference among the three principles predicts that the speaker uses *wa* instead of *zo* or *yo* when he is not committed to making the addressee believe what the speaker believes, but simply remarks about something he has realized. For instance, when the speaker realizes that his family is out of coffee beans, he may express this realization with *wa*, without the intention of thereby informing the other family members about the coffee inventory.

(25) a. Koohii kirashiteru **wa**.
         coffee   run out
         '**Oh**, (we're) running out of coffee beans.....'

    b. #Koohii kirashiteru **zo**.
         '(We're) running out of coffee beans! (**Go get them**).'

    c. #Koohii kirashiteru **yo**.
         '**Hey**, (we're) running out of coffee beans.'

If *zo* is used instead of *wa*, the speaker sounds like he is trying to get the addressee to believe that all of the coffee beans are gone and have the addressee do something about it (e.g., to have the addressee run to a store). If *yo* is used instead of *wa*, the speaker sounds like he is just letting the addressee know that all of the coffee beans are gone.

The difference among the three principles predicts that the speaker chooses *yo* among the three particles in a situation where he does not want to indicate directly that he believes that the addressee should believe the proposition, but wants to affect the addressee's belief. One such situation is where the speaker suggests some idea to the addressee, but does not want to threaten the addressee's face by making direct reference to the fact that the speaker has a desire to make the addressee believe what the speaker believes. For instance, *yo* can be used to give a statement the force of a suggestion, as in (26a).

(26) a. Purinto o   sutte ato de kubareba   ii   n da **yo**.
         handout DO print later   distribute good COP
         'All you have to do is to make handouts and hand them out later, **I tell you**.'

    b. #Putinto o sutte ato de kubareba ii n da **zo**.
         'All you have to do is to make handouts and hand them out later (**damn it!**)'

    c. #Purinto o sutte ato de kubaraba ii n da **wa**.
         '**Oh**, all you have to do is to make handouts and hand them out later......'

If teacher A uses *zo* instead of *yo*, he threatens the face of teacher B by making direct reference to the fact that A has a desire to make B believe what A believes. If teacher A uses *wa* instead of *yo*, the statement does not have the force of a suggestion.

The above evidence shows that given the choice among *zo*, *yo* and *wa*, *zo* will be used when the speaker wants to indicate directly that the speaker believes the addressee should believe the proposition. *Wa* will be used when the speaker is not committed at all to making the addressee believe what the speaker believes. *Yo* will be used when the speaker wants to downplay his desire to impose his own belief on the addressee directly, but does want to affect the addressee's belief. Since different degrees of insistence follow from the difference among the three principles, the independent principles can explain why *yo*, *zo* and *wa* appear to differ in degree. Thus, this pragmatic approach explains what the scalar approach had to stipulate.

5. *Zo* as characteristic of men's speech

Native speakers of Japanese believe that members of Japanese society believe that *zo* is characteristic of men's speech. Thus, that *zo* is characteristic of men's speech is a normal belief [5] (i.e., what the speaker believes others believe everyone believes) in Japanese society.

The normal belief that *zo* is characteristic of men's speech follows from the interaction of the *zo*-principle and how men and women are expected to appear to others in Japanese society. As just shown, *zo* will not be used when the speaker wants to avoid direct reference to the fact that the speaker wants the addressee to believe that the proposition is true. Thus, *zo* will not be used in situations where it is inappropriate to acknowledge that the speaker wants the addressee to believe that the proposition is true. In Japanese culture, women are expected to be more deferential to others than men. Therefore, a woman is expected not to show her desire to impose her own belief on others. Thus, *zo*, which makes it explicit that the speaker has a desire to impose his own belief on the addressee, cannot acceptably be used by women in Japanese culture. The use of *zo* is reserved for men, who are allowed by other members of the society to show their desire to impose their own beliefs on others.

It is the normal belief (i.e., what the speaker believes others believe everyone believes) that controls the use of *zo*. In other words, women in Japan are inhibited from using *zo* because the speakers of Japanese believe that others believe everyone believes that women are expected not to show their desire to impose their own beliefs on others.

This predicts that since the use of *zo* is controlled by what the speaker believes others believe everyone believes, *zo* will not be used by a woman when she is interacting with other people. A woman will care about how she appears to other people and try to conform to what others believe everyone believes about how women should behave. On the other hand, it is predicted that *zo* can be used even by a woman when she is not interacting with others (i.e., when she is talking

to herself). When she is all by herself, she does not have to worry about how she appears to others and does not have to conform to others' beliefs. Thus, a woman can use *zo* to encourage herself to finish her paper that night, as in (27).

(27) Konban peepaa o   kaki ageru **zo**.
　　　 tonight paper DO write finish
　　　 'I'll finish writing the paper tonight (**for sure**).'

Second, if the use of *zo* is controlled by what the speaker believes others believe, whether the speaker believes that the addressee (i.e., the person whom the speaker is talking to) or the hearer (i.e., any person who can hear what the speaker says) has normal beliefs is relevant in the decision to use *zo*. If the use of *zo* is controlled by what the speaker believes others believe, *zo* will not be used by a woman when she talks to someone who she believes knows what women are expected to do in Japanese society (i.e., women are expected not to show their desire to impose their own beliefs on others). Thus, *zo* will not be used by women when they talk to adult members (both men and women) of Japanese society, which is exactly the case. A woman cannot acceptably use *zo* to warn her friend that there are bees, as in (28). Instead of *zo*, she will make use of intonation and/or other particles.[6]

(28) #Hachi ga iru   **zo**.
　　　 bees   SB exist
　　　 'There are bees!'

A female speaker will not use (28) to warn either male or female friends.

On the other hand, *zo* can be used by a woman when she talks to someone whom she believes to have no knowledge of what women are expected to do in Japanese society. Thus, *zo* can be used by a woman when she talks to a small child. If a woman is warning her child that a car is approaching, *zo* can be used, as in (29).

(29) Kuruma ga kuru   **zo**.
　　　 car   SB come
　　　 'A car is coming!'

Women might intentionally use *zo* when they are talking to male children so that they can model the fact that *zo* is characteristic of men's speech. Sakata 1991 states that a mother uses male particles (e.g., *zo*) to her male child when they are engaged in what are considered to be masculine activities so that they can model the fact that certain particles are characteristic of men's speech.[7]

If what the speaker believes others believe controls the use of *zo*, *zo* will not be used by a woman even when she is talking to a child if the speaker thinks that an adult who is present can hear her talking. *Zo* can be used by a woman when the people who are present at the time of the utterance are only children. Thus, a woman can be inhibited from using (29) when talking to a child if another adult is around.[8]

6. Conclusion

The independent principle approach, in which each SFP is characterized independently, correctly captures the uses of each SFP and is more explanatory than the scalar approach. In the independent principle approach, different principles characterize the function of each SFP and thus, this approach correctly captures the fact that SFPs reflect different sorts of attitudes rather than different degrees of the same attitude. Even though SFPs reflect different sorts of attitudes, the fact that motivated the scalar analyses — that there seems to be a different degree of insistence in getting the addressee believe what the speaker believes — follows from the difference among the three principles. Since a scalar ranking follows from the three independent principles, it does not have to be stipulated. Thus, the independent principle approach is more explanatory than the scalar approach.

In addition to these advantages, the fact that *zo* is characteristic of men's speech follows from the difference among the independent principles and how men and women are expected to appear to others in Japanese culture.

This paper showed that the appearance of a different degree of insistence follows from the three independent principles: the use of *yo*, the use of *zo* and the use of *wa* can indicate the same thing but the three differ in how directly they indicate it. Since the approach outlined here postulates independent principles for each SFP, it predicts that other SFPs do not necessarily differ in the same dimension. For example, the difference between *yo* and *ne* is not necessarily how directly the speaker affects the addressee's belief, but may be something else. Thus, this approach predicts that there will not necessarily be a single scale on which all SFPs can be placed, but there may be many separate scalar relations between particles.

NOTES

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[1] In this paper the following abbreviations are used: SB = subject, TP = topic, DO = direct object, GN = genitive, COP = copula, NEG = negative, PROG = progressive, Q = question particle.

[2] Commitment is defined following Lu (forthcoming). When one is committed to something, one is willing to be held responsible for it. When making a statement or directive, the speaker is committed to the speech act, and thus, willing to be held responsible for making the statement or directive. Similarly, an addressee would be committed to, and thus, willing to be held responsible for:

A. a state of affairs denoted by the propositional content of a STATEMENT when the addressee believes the proposition expressed by the statement to be true.

B. a state of affairs denoted by the propositional content of a DIRECTIVE when the addressee believes the addressee will perform the action expressed by the directive.

Since the *yo*-principle states that the speaker believes that the addressee is NOT committed, it follows that the use of *yo* reflects the speaker's belief that 1) the addressee does not believe the proposition expressed by the statement to be true, OR 2) the addressee will not perform the action expressed by the directive.

³ In this paper, directive refers to a speech act by which the speaker directs the addressee to do a certain action. Commands, requests, suggestions, and questions are subcases of directives. Questions are a subcase of directives in that by asking a question, the speaker directs the addressee to do a verbal action, which is to give the speaker an answer (providing the speaker with the information he wants in case of wh-questions). An example of yes-no questions is in (30) and an example of wh-questions is in (31).

(30) Kyoo no kaji no   koto kiita ka.
     today GN fire GN   event heard Q
     'Did you hear about today's fire?'

(31) Doko   e   iku n da.
     where DR go   COP
     'Where are you going?'

⁴ There are two kinds of SFP *wa*: the one that is exclusively used by women and the one that can be used by either men or women. The one that is considered to be characteristic of women's speech is the one with rising intonation. The one which can be used by either men or women is the one with falling intonation. In future, I hope to argue that the two kinds of *wa* follow from the same principle and the independent rule of intonation. But, here, only the *wa* with falling intonation (the one that can be used either by men or women) will be discussed.

⁵ In this paper, the term normal belief is used as described by Nunberg (1978:94-95). According to Nunberg, normal belief is the body of beliefs that the speaker takes "to constitute the background against which all utterances in a community are rationally made."

⁶ When women warn the addressee, they may use the combined SFPs *wa yo*.

⁷ For example, a mother may use *zo* when she is playing with miniature cars or playing catch with her son.

⁸ However, a woman might choose to use *zo* when talking to a male child even in the presence of another adult if she believes the other adult also believes that it is acceptable to model the fact that *zo* is characteristic of men's talk.

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VARIATION IN THE RATE OF LANGUAGE CHANGE DUE TO SOCIETAL INFLUENCE: EXAMPLES FROM THE GERMANIC LANGUAGES*

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For Elmer H. Antonsen
from a 'comrade–in–arms'

There is a notable correspondence between social setting and language change, which reflects a quite natural relationship between society and language. In a social setting characterized by stability, the norms are generally maintained; internally or externally induced language changes do occur, but they are curbed, slowed down, or they follow a natural course of development. On the other hand, a social setting characterized by upheaval, population migration, etc., is favorable to language change and speeds up the rate of language development. This correspondence between social setting and language change is exemplified by an analysis of the development of Proto-Germanic and the society that used that language. The relationship between society and language is also aptly illustrated by the conservative character of the development of Icelandic as contrasted with that of English.

1. Society and language

The relationship between society and language is a highly interesting topic. Unfortunately, several aspects of this relationship are as yet not well understood. One of the aspects of which we are starting to have a clearer view is how society affects the rate and thus the extent of language change.

It has been established that there is a social setting that is favorable to language change and a social setting that is unfavorable to language change. In the setting that is favorable to language change there are within the same span of time more changes than in the setting that is unfavorable to language change. In other words, there are differences between the two settings, both in the rate of change and in the number of changes.

In this connection, society appears to function as a regulator of language development. In a social setting characterized by stability and conservatism, norms are maintained. Changes do occur, but they are curbed, slowed down, or they follow a natural course of development. This social setting is unfavorable or neutral to language change and the rate of language development is comparatively slow. In a social setting characterized by drastic change, instability, upheaval and lack of conservatism, norms are relaxed or given up. Changes are not checked and develop more freely. This social setting is favorable to language change and the rate of language development is comparatively fast.

For measuring the rate and extent of change in such cases, there are three prerequisites.

First, as a basis for a comparison between society and language development, we have to establish a given length or period of time long enough to allow for adequate observation of change.

Second, we need a description of the social evolution of the speech community during the given period of time.

Third, we need a chronologically accurate description of the language changes in the same speech community and during the same period of time. Then we have to see whether or not there is synchronism between the social change and language change. A concomitant question is whether this synchronism is inherent or accidental.

2. Proto-Germanic and its speech community

2.1 Taking into consideration the three prerequisites, the development of the Germanic Parent Language (Proto-Germanic) and of the separate Germanic languages provides us with illustrative examples of the relationship between social change and language change.

Given the documentation we have on Germanic, we are able to cover roughly four millennia of Germanic language development, two before Christ and two after (compare from here on the summarizing Chart 1, below). The two millennia before Christ are the domain of the reconstructed Germanic Proto-Language, including some overlap with pre-Germanic. The two millennia after Christ are the domain of the separate Germanic languages. Consequently, as far as periodization is concerned, we have a clear-cut picture and can now investigate the nature of the society and the language or languages involved.

2.2 First the society. The populations involved originally lived in southern Scandinavia, with Denmark as its center, and in an adjacent part of present-day northern Germany. For the sake of convenience we will refer to the populations inhabiting these areas with the general name of NORTHMEN; consequently, this label does NOT refer here to SCANDINAVIANS or VIKINGS. In the period before Christ, we further distinguish between the Bronze Age (from about 1500 to 500 B.C.) and the Iron Age (from about 500 B.C.). The Bronze Age has been found to be a time of stability. The society was an affluent one. The graves of the rich, especially those of women, attest to great wealth and prosperity. It was also a time during which clement weather conditions contributed to the good fortune of the inhabitants of northern Europe. However, even before 500 B.C., symptoms of change were occurring. In particular, in northern Europe an ongoing southbound population expansion can be observed. At the end of the Bronze Age, i.e., around 500 B.C., the Northmen had spread in northern Europe in several directions. In the west they had passed the Rhine. In the East they had probably reached the Vistula area. In the south they must have been approximately halfway between the coast of Germany and the Danube. These delimitations represent the extreme boundaries of the expansion area of the Northmen at the time. This, however, does

not mean that they were the exclusive inhabitants of that expansion area; they will have shared it with other populations, such as the Celts, and they will not only have coexisted, but have merged with other peoples. During the last millenium B.C., the main neighbors of the Northmen were in general Celts in the south and southwest, and Balts, together with Slavs, in the east.

Chart 1: Variation in the Rate of Language Change

I. The development of the Germanic Parent Language or Proto-Germanic (2000 - 0 B.C.)

B.C.	Society			Language	
2000				pre-Germanic	
1500		stable social setting UNFAVORABLE to language change			time of MINIMAL change in language
1000	Bronze Age			Early Proto-Germanic	
500 +	+	+	+	+	
	Iron Age	unstable soc. setting FAVORABLE to lang. change		Late Proto-Germanic	time of SIGNIFICANT change in language
0					

(+ indicates overlapping area)

II. The development of the separate Germanic languages (0 - 2000 A.D.)

— English vs. Icelandic
— Rate of language change: Internally vs. externally determined

The transition from the Bronze Age to the Iron Age, around 500 B.C., marked a progressive, major alteration in the sociocultural and socio-economic development of the Northmen. After the prosperity and stability of the Bronze Age came an economic decline resulting in social change and leveling. This course of events was brought about by a combination of several factors: First, a change in climate. Second, the use of iron, replacing bronze, as an economic commodity, making 'great demands on the skill of the smith' (O. Klindt-Jensen). Third, the Celts developed into an important power in central Europe. They formed a barrier to the established trade of Northmen with southern Europe, and oriented themselves economically towards the Mediterranean area. This double challenge from the Celts was to the disadvantage of the Northmen.

The deterioration of climatic conditions is usually considered to be the primary circumstance that formed a favorable setting where the other causal factors could exert their influence; climatic changes have often had significant repercussions on peoples. The climatic shift in northern Europe from warm to cold and

wet must have started around 1,000 B.C. From around 500 B.C., long winters affected the general agricultural organization. Such a situation must have been characteristic of the Scandinavian landscape. All of the factors involved will have adversely affected the environment and the economy. What we usually observe in cases of climatic and economic deterioration is emigration (most often also caused by population increase), and that is what apparently happened here. A historical constant was at work. Indeed, from 200 B.C. on, historians document massive population migrations (e.g., Cimbri, Teutons, Vandals, Burgundi, Goths) from Scandinavia or the Oder-Vistula area, and from there to, or in the direction of, the Black Sea and also farther to the west and south of Europe, even to the northern coast of Africa.

A profound difference in overall worldview and way of life distinguished the Northmen of the Bronze Age from their Iron-Age descendants or counterparts. A different physical environment and a different economy had shaped a different social order and thus a human being with a different individual and social personality. While the Bronze-Age Northmen lived in prosperity, the Iron-Age populations had to cope with difficult times. Such adversity brought about a more frugal existence and competitiveness, and the Northmen went out to conquer and improve their way of living. In Roman times, the entry into history of the Northmen, these being now recognizable as GERMANIC populations, also marks the beginning of their dispersion and of the permanent dialect fragmentation of the Germanic Parent Language.

2.3 Now, after having discussed the evolution of the Northmen's society, we shall consider the language that was spoken in it.

In the evolution of the Germanic Parent Language a change of considerable consequence occurred, namely, ACCENT MODIFICATION. This accent modification consisted of two changes: First, a change in the nature of the accent, i.e., a change from a nondominant accent, traditionally called MUSICAL or PITCH ACCENT, to a dominant accent, traditionally called STRESS ACCENT. Second, a change in the placement of the accent, i.e., a change from a free accent to a fixed accent of the word. The change in the nature of the accent preceded the change in the place of the accent, as we know from Verner's law. This suprasegmental modification had segmental reflexes, which started out in the Germanic Parent Language and continued into the separate Germanic languages. Such reflexes are represented in so-called UMLAUT phenomena and in segmental and syllabic reduction, which itself gradually modified the language or languages from a synthetic, strongly inflected type to an analytic, strongly deflected type. In other words, an important typological change took place, which in its development triggered a variety of dependent changes and revolutionized Germanic. This change must have begun shortly before the permanent fragmentation of the Germanic Parent language, in the last centuries B.C., that is, in the Iron Age and at the time of Late Proto-Germanic, when the social setting was one of alteration and upheaval and thus particularly favorable to language change.

In the rather short time of the Iron Age B.C., we thus find a concentration of related changes. This forms a strong contrast with what we saw in the previous period, that of the Bronze Age and of Early Proto-Germanic, and we may even include pre-Germanic. This earlier period ranged over more than a millennium, a period that has been recognized as one of great social stability and thus not conducive to language change. It is striking that during the Bronze Age less than half a dozen changes took place in the vocalism, and those changes also had far less impact on the language than the accent modification and its segmental reflexes during the Iron Age.

One might also want to consider the well-known Germanic consonant shift, known as GRIMM'S LAW. There is presently so much discussion about the consonantism of Proto-Indo-European and its daughter languages in general, that it is better for the time being to refrain from making any claims in this regard. Yet, the most recent evaluations place the occurrence of the Germanic consonant shift around 500 B.C., that is, in the transition period between the Bronze Age and the Iron Age.

In conclusion, a comparative analysis of the development of Proto-Germanic during the Iron Age with the society that spoke that language reveals remarkable parallels between change in language and change in society. We can go further and maintain that this parallelism also reflects a relationship. Of course, one might deny this and claim that such a parallelism is accidental. However, such a parallelism has occurred in other cases and is not uncommon, and to demonstrate this we do not even have to go outside the Germanic language family.

3. English and Icelandic

In this context a comparison of English with Icelandic is revealing. The segmental and syllabic reduction that started out in the Germanic Parent language as a segmental reflex of the accent modification affected all of the Germanic languages, but did so to different degrees. As a consequence of this reduction English became strongly deflected and monosyllabic in its vocabulary inherited from Germanic, while Icelandic remained very much an inflected language and is in this respect the most archaic of all the Germanic languages. The two, English and Icelandic, are antipodes, extreme opposites, so to speak.

Remarkably, they are both what one could call ISLAND LANGUAGES, but this did not make their sociohistorical developments similar. The English community remained in constant contact and interaction with other Germanic communities and other cultures. It illustrates a social setting that is generally favorable to language change. Icelandic, on the other hand, from the 11th c. started to develop independently of Norwegian (Old Norse), and it has remained since then in a state of reclusion and isolation. In the development from Old to Modern Icelandic some changes have ocurred, but reduction has been generally prevented. This lack of reduction has kept the morphology and synthetic nature of the language virtually unmodified, and gives Icelandic, compared to other Germanic languages, a very conservative character. For example, the declension of the Icelandic substantive still has four cases, a nominative, an accusative, a dative, and

a genitive. It is worthy of attention that attitudinal factors seem to have strongly prevailed here and to have produced a social setting permanently unfavorable to language change.

The gradual splitting-up of Icelandic and Norwegian from the 11th c. on further illustrates how much the difference in social setting influences language development. In its development to deflection, Norwegian is far more comparable to English than to Icelandic. Norway participated far more than Iceland in the events that took place in the other parts of Europe, and the development of the Norwegian language attests to that.[1]

4. Rate of language change: Internally vs. externally determined

The examples of variation in the rate (and extent) of language change we have been discussing are clearly social in nature; they depend on differences in social settings and are thus externally determined. They should not be mistaken for other cases of variation in the rate of language change that depend on the type of accentuation of the language, and are consequently structurally induced and internally determined.

W. G. Moulton has described a case of slowing-down of the rate of language change in Alemannic dialects, i.e., Wallis dialects and Upper Bernese dialects, in the southwestern part of Switzerland. This slower rate of change must have occurred as the result of the contact of that form of Alemannic with Romance or Franco-Provençal in East Valais dialects, that is, a contact between (Germanic) Alemannic and Romance. This was an earlier contact where, among other things, the two types of accentuation we spoke of earlier were confronted, namely, an Alemannic accentuation with dominant prominence, traditionally called STRESS ACCENT, and a Romance accentuation with nondominant prominence, traditionally called PITCH ACCENT. As we noted, languages with dominant accentuation show segmental and syllabic reduction and a higher rate of change, languages with a nondominant accentuation do not show such a reduction and display a slower rate of change.

A very remarkable fact about this Wallis Alemannic is that it preserves a number of full vowels in nonprominent position, and shows far less reduction than other Alemannic dialects or any other German dialect. In particular, this Wallis Alemannic maintains final *a* and *o,* which Moulton derives from Old High German *a* and *o.* In other words, Wallis Alemannic reveals a nondominant accentuation while the other Alemannic dialects show, as do other German dialects, a dominant accentuation. Moulton notes: 'One of the most striking features of W[allis] is its accent pattern. This differs greatly from that of other Alemannic dialects in that the contrast between stressed and unstressed syllables is very slight.' Apparently Wallis Alemannic developed a nondominant accentuation through language contact with Romance, as Moulton very clearly states: 'At a time when final -*a* and -*o* seem to have been spoken in all H[igh] G[erman] dialects, German speakers migrated into parts of the western Alps and settled among the Gallo-Roman speakers already there. In the ensuing language conflict, German, the upper language, won out. In the course of the conflict, however, various aspects of

the German dialect were affected, including its phonetic structure; one result is the preservation of OHG -*a* and -*o*.' Moulton rightly views this language contact from the perspective of language acquisition, as he states that 'it seems probable that after the arrival of German speakers, many foreign speakers became bilingual, but spoke German imperfectly'. In preserving OHG -*a* and -*o,* Wallis Alemannic is thus very conservative, having significantly reduced its rate of change.

That this reduction in the rate of change is the result of contact with Romance is nicely corroborated by the following. When noting that the difference between so-called STRESSED and UNSTRESSED syllables is very slight in Wallis Alemannic (nondominant accentuation), Moulton also states that as a result of this, 'the dialect gives a very un-German impression'. He further cites a study of E. Wipf, who wrote about the Visperterminen dialect in Wallis, in which it is stated that at first impression it sounds like a Romance dialect, or, that it sounds like the language of a speaker of Romance who is learning or has learned German.

In conclusion, when considering the social aspects of language change, the rate of change is only one of those aspects. Although the relationship between society and language has long been recognized in principle, concrete cases analyzing the various facets of this relationship have not been regularly forthcoming. Historical studies can be particularly revealing here, insofar as they allow us to focus on language change over a long period of time. There is much fascinating work to be done.

NOTES

[1] In a personal communication Elmer Antonsen notes that 'another prime example of a slow rate of development in a stable social setting is the German standard ... compared to most German dialects'. In connection with this, he refers to Friedrich von Schlegel, who wrote in his famous treatise *Ueber die Sprache und Weisheit der Indier* (1877:294): 'Die kunstreiche Struktur geht durch die Abschleifung des gemeinen Gebrauchs besonders in einer Zeit der Verwilderung gern verloren [The artful structure is often lost by being worn down from common use, particularly in a period of cultural neglect (degeneration)]'. Antonsen adds furthermore that 'such periods of cultural neglect are clearly found for English in England under

the French-speaking Norman nobility and for German dialects during the modern era of standardization'.

MEANING AND FORM: COMPUTING DEFINITE AND UNIQUENESS READINGS OF COMPLEX NOUN PHRASES IN MANDARIN CHINESE*

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In this paper, I examine the combined effect of lexical/ constructional meaning and focus in Mandarin Chinese complex NPs and argue that definite and uniqueness readings of such NPs require an analysis based on the interaction of truth conditional meaning, the interpretation of focus, and contextually furnished information. Such an analysis is necessary for an adequate account of focus in the NP and allows for a uniform treatment of uniqueness readings by principles of the interpretation of focus and meaning in general.

1. Introduction

NP-internal word order, properties of prenominal modifier phrases, intonational prominence, and contextually provided presuppositions are all factors observed to affect definite and uniqueness readings of Mandarin Chinese (MC) complex NPs (Annear 1965, Chao 1968, Huang 1982, Wu 1993, 1994, 1995a, 1995b). Based on interpretive patterns observed of MC demonstrative NPs and NPs with numerals, I will argue that definite and uniqueness readings of such NPs require an analysis based on the interaction of truth conditional meaning, the interpretation of focus, and contextually furnished information. Such an analysis is necessary for an adequate account of focus in the NP and allows for a uniform treatment of uniqueness readings by principles of the interpretation of focus and meaning in general.

2. Interpretive patterns

2.1. Demonstrative NPs and NPs with numerals

MC does not have definite and indefinite articles. Definite and uniqueness readings are observed to correlate with word order in the NP (Annear 1965, Chao 1968, Huang 1982, Wu 1993). Consider the demonstrative NPs in (1), for example.

(1) a. [$_{NP}$ DEM MOD-*de*   N']
    Nei wei dai yanjing de xiansheng shi shei? (Chao 1968:286)
    that cl wear glasses de gentleman be who
  'Who is **that** gentleman wearing glasses?'

  b. [$_{NP}$ MOD-*de*   DEM   N']
    Dai yanjing de nei wei xiansheng shi shei? (Chao 1968:286)
    wear glasses de that cl gentleman be who
  'Who is **the** gentleman <u>wearing glasses</u>?'

Underlining in the English translation indicates structurally focused material in MC (Wu 1994). The NP in (1a) with no modifier phrase (MOD-*de*) preceding the demonstrative reads as 'that gentleman wearing glasses' and may be used felicitously in a context where more than one gentleman wears glasses, so long as there is a unique salient gentleman wearing glasses the speaker is pointing at. In comparison, the NP in (1b) with a MOD-*de* preceding the demonstrative may be used only if the NP referent is the only salient gentleman wearing glasses in the general direction of the pointing. It is this uniqueness requirement that the English translation for (1b) with the definite article *the* is meant to reflect. Strictly speaking, *nei* in (1b) is still the demonstrative 'that' as glossed, and an English translation for (1b) spelled out in full would be something like 'who is that gentleman wearing glasses (there is only one salient gentleman wearing glasses in the general direction of the pointing)?' That is, *the* is not an exact translation of *nei* in (1b) and is used here to distinguish (1b) from (1a) where uniqueness requirements are concerned.

Similarly, the NP in (2a) with the numeral preceding the MOD-*de* may be used felicitously in a context where two or more students wear glasses. But in (2b), the NP with MOD-de preceding the numeral is appropriate only if exactly two students wear glasses in the relevant context. For ease of presentation, I will ignore the classifier and refer to the numeral with a classifier as NUM, and the demonstrative with a classifier as DEM.

(2)   a.   [$_{NP}$ NUM   MOD-*de*   N']
              Lisi wenle   liang-ge   dai   yanjing de   xuesheng.
              Lisi asked   two-cl   wear glasses de   student
              'Lisi asked **two** students wearing glasses.' or
              'Lisi asked **the two** students wearing glasses (with contextually
               furnished uniqueness presupposition that only two students
               wear glasses).'

       b.   [$_{NP}$ MOD-*de*   NUM   N']
              Lisi wenle   dai yanjing de   liang-ge   xuesheng.
              Lisi asked   wear glasses de   two-cl   student
              'Lisi asked **the two** students <u>wearing glasses</u>.'

Note that the demonstrative NPs in (1) always have a definite reading, i.e., while the NP referent may or may not be the only gentleman wearing glasses in the case of (1a), the NP referent is always the unique gentleman wearing glasses *being pointed at*. On the other hand, since an indefinite reading is available in (2a), the NP readings in (2) are not all definite, which shows that DEM and NUM make different contributions to the NP readings where definiteness is concerned.

2.2.   Intonational prominence affects the NP readings

Intonational prominence (indicated by capital letters here) is also observed to affect NP readings. For example, the expressions in (3a) and (3b) have the same word order as in (1a) and (1b) respectively.

(3) a. [$_{NP}$ DEM   MOD-*de*   N']
        Nei wei DAI YANJING de xiansheng shi shei? (Chao 1968:286)
        that cl wear glasses   de gentleman be who
        'Who is **the** gentleman who is WEARING GLASSES (not the one
        who is not wearing glasses)?'

    b. [$_{NP}$ MOD-*de*   DEM   N']
        Dai yanjing de NEI wei xiansheng shi shei? (Wu 1994)
        wear glasses de that cl gentleman be who
        'Who is **THAT** gentleman <u>wearing glasses</u>?'

In (3a), MOD-*de* is intonationally prominent, and the expression may be used appropriately only if a unique salient gentleman wears glasses in the general direction of the pointing. No such constraint applies to (1a). And contrary to the case in (1b), with intonational prominence on DEM, the NP in (3b) may be used felicitously where more than one salient gentleman wears glasses in the general direction of the pointing.

The expressions in (4a) and (4b) have the same word order as in (2a) and (2b) respectively. Note that in (4a), the NP with focus on MOD-*de* may still have an indefinite or a definite reading. This is unlike (3a), where making MOD-*de* intonationally prominent results in the NP having a uniqueness reading only. Furthermore, as shown in (4b), focus on the numeral makes a partitive reading available. No such reading is available in (2b), where the numeral is not intonationally prominent.

(4) a.   [$_{NP}$ NUM   MOD-*de*   N']
        Lisi wenle liang-ge   DAI YANJING de xuesheng.
        Lisi asked two-cl   wear glasses   de student
        'Lisi asked **two** students WEARING GLASSES.' or
        'Lisi asked **the two** students WEARING GLASSES (with
        contextually furnished presupposition that only two students
        wear glasses).'

    b.   [$_{NP}$ MOD-*de*   NUM   N']
        Lisi wenle dai yanjing de LIANG-ge xuesheng.
        Lisi asked wear glasses de two-cl   student
        'Lisi asked **TWO** (of the) students <u>wearing glasses</u>.' or
        'Lisi asked **the TWO** students <u>wearing glasses</u> (contrastive
        context required).'

2.3.   Summary

The interpretive patterns may be summarized as in (5). Focused constituents are indicated with a feature F. The MOD-*de* is focused intonationally in (5b) and (5c) and focused structurally in (5d) and (5e). DEM/NUM is focused intonationally in (5e).

(5) a. DEM/NUM MOD-*de* N' → no uniqueness effect
    b. NUM [MOD-*de*]$_F$ N' → no uniqueness effect

  c. DEM [MOD-*de*]$_F$ N' → uniqueness effect
  d. [MOD-*de*]$_F$ DEM/NUM N' → uniqueness effect
  e. [MOD-*de*]$_F$ [DEM/NUM]$_F$ N' → no uniqueness effect

The patterns show that uniqueness effects come with the NPs in (5c) and (5d), but not with the other NPs. In (5c), descriptive content alone is focused in the demonstrative NP. In (5d), MOD-de precedes DEM/NUM, and descriptive content alone is focused in the NP.

The contrast between (5b) and (5c) where focus is on descriptive content alone suggests that focus on descriptive content alone is not a sufficient condition for uniqueness readings of the NP. The contrast between (5d) and (5e) where MOD-*de* precedes DEM/NUM suggests that word order alone is not enough to account for uniqueness readings either. The interpretive patterns show that DEM and NUM do not contribute to definite readings in the same way. The fact that demonstrative NPs always have a definite reading may be attributed to the meaning of DEM, which requires that the NP referent exist and uniquely satisfy the descriptive content in the range of the pointing. NPs formed with NUM are not always associated with a definite reading, however. If we were to treat definiteness as a lexical property of NUM, then NUM would need to be ambiguous and conditions that determine the selection of one meaning and not the other still need to be specified. Where demonstrative NPs are concerned, differences in the range of pointing need to be considered, too.

The interpretive patterns observed above suggest that uniqueness readings may not be attributed to lexical meaning, word order, or focus alone. The readings are too consistent to be conversationally inferred, however, and suggest that the NP content contributes to the NP readings in systematic ways. In the following, I will argue that uniqueness readings of MC complex NPs are not indicated directly but rather are computed indirectly based on the interaction of truth-conditional content, structure, focus, and contextually provided information combined.

3. Towards an analysis of the NP readings

On the assumption that the meaning of an expression depends on the meaning of its parts and the way they are combined, let's consider some properties of the NP content that may contribute to definite and uniqueness readings of the NP.

3.1. Existential and uniqueness presuppositions and linguistic forms

It is fairly standard to assume that definite descriptions presuppose existence and (context relative) uniqueness. Take the English definite NP *the cat* for example. The expression is commonly assumed to presuppose (6), which says (a) there is a cat, and (b) there is only one cat.

(6) *the cat* carries the presupposition:

$\exists x[cat(x) \& \forall y[cat(y) \rightarrow y=x]]$, i.e.,

    a.   there is a cat

    b.   there is exactly one cat

Heim 1982 argues for an alternative analysis where the definite NP *the cat* is associated with the presupposition in (7) such that context furnishes a unique value to the variable x_i, and that value is a cat.

(7) *the cat* is associated with the presupposition: $cat(x_i)$, i.e.,

    a.   the context furnishes a unique value for the variable x_i

    b.   that value is a cat

The presupposition gives rise to the implication that there is a 'most likely' cat, or a unique 'relevant' cat, which is unique in a contextually relevant sense, and the NP may be used felicitously only if there is such a cat in the relevant context (Heim 1982:229-237).

In Hawkins 1991, the English definite article *the* has existence and uniqueness as part of its logical meaning. It also conventionally implicates a pragmatic requirement that the NP referent exist and be unique within a P-set, which is a pragmatically determined subset of entities in the universe of discourse and is mutually known (not necessarily in advance) to the speaker and hearer in actual language use (1991:409-416,429).

Alternatively, Morgan 1975 and Lyons 1977 have argued against treating existential and uniqueness presuppositions which are usually associated with definite descriptions of the form *the N* as a consequence of truth-conditional properties of *the*. They propose instead that the definite article *the* signals speaker intention, definite descriptions of the form *the N* indicate definite referring expressions, and the existence and uniqueness of the intended NP referents in the relevant context may be conversationally inferred based on general principles of discourse (Morgan 1975:440-442, Lyons 1977:600-606).

In short, whether uniqueness is treated as truth conditional content or conversationally derived, it is assumed that the linguistic form *the N* signals or calls for existential and uniqueness presuppositions or inferences associated with the NP.

3.2. Presuppositions and linguistic forms in Mandarin complex NPs

We have already observed that in MC, uniqueness readings may not be attributed to lexical meaning, word order, or focus alone. DEM indicates existence and uniqueness in the range of the pointing, which holds for both (1a) and (1b). However, since the range of the pointing may vary across contexts and can be more restricted than the general direction of the pointing, as is the case in (1a), uniqueness in the range of the pointing does not entail uniqueness in the general direction of the pointing. So the uniqueness reading in (1b) does not follow from the meaning of DEM alone.

(1)   a. [$_{NP}$ DEM   MOD-*de*   N']
              Nei wei dai yanjing de xiansheng shi shei? (Chao 1968:286)
              that cl wear glasses de gentleman be who
          'Who is **that** gentleman wearing glasses?'

      b. [$_{NP}$ MOD-*de*   DEM   N']
              Dai yanjing de nei wei xiansheng shi shei? (Chao 1968:286)
              wear glasses de that cl   gentleman be who
          'Who is **the** gentleman <u>wearing glasses</u>?'

In the following, I will examine the combined effect of lexical/constructional
meaning and focus that may contribute to definite and uniqueness readings of the
NP.

3.2.1. Focus: some background

Focus introduces a set of alternatives to the denotation of the item in focus
(Jackendoff 1972, Rooth 1985, Krifka 1991). For example, in a context with
three individuals Bill, Amy, and Sue, focus on *Bill* may introduce a set of
contextually selected individuals as in (8), where *bill*, *amy*, and *sue* are assertable
alternatives in the given context.

(8)   BILL
      Alternatives = {bill, amy, sue}

Note that depending on the context, different individuals may be selected to
construct the alternative set. The alternatives are of the same type, and the asserted
alternative *bill* contrasts with the non-asserted alternatives *amy* and *sue*.

With focus on *Bill* and focus-induced alternatives {bill, amy, sue}, the
expression in (9a) may be associated to the alternatives in (9b), where the
alternative that obtains is the proposition in which Amy likes Bill.

(9)   a. Amy likes BILL.
      b. Alternatives = { amy likes **bill**, amy likes **amy**, amy likes **sue** }

Focus also introduces a focus-background partitioning of focused (new) and
non-focused (background) information (Quirk *et al.* 1985:86, Partee 1991). For
example, focus on the adjective *used* in (10a) divides the NP content into focused
and background information as in (10b).

(10) a. two USED books
      b. Focus = used
          Background = two books of some sort

It is important to note that the non-focused content is not always assumed
(Rochemont 1986:45), nor is it always old information (Selkirk 1984:213). Take
(10a) for example, the NP may be used to answer the question *What did Jack buy?*
In this case the numeral in the background conveys information that is asserted
rather than presupposed. Focus normally indicates that information conveyed by
the item in focus is new (or 'news worthy', as suggested in Chesterman 1991:143)
and therefore not presupposed.

Also, it has been argued that structurally indicated focus may obligatorily perform discourse functions that corresponding intonationally-indicated focus need not be associated with. In particular, background associated with 'pre-posed' focus appears to be presupposed (Ward 1988).

We have seen that focus alone is not sufficient to account for uniqueness readings of the NP. However, given the focus properties discussed above, it is plausible that when focus on MOD-*de* is indicated structurally, i.e., when MOD-*de* precedes DEM/NUM, the NP is associated with presuppositions that are otherwise not necessarily associated with the NP. If this is correct, then uniqueness readings of the NP may be a consequence of focus and structure combined. The question then is, what kind of presuppositions may be obligatorily indicated by focus and structure combined to give rise to the different NP readings? We shall come to this shortly.

3.2.2. Presuppositions and constructional meaning

It can be shown that NPs with the order MOD-*de* NUM N' come with an existential presupposition whether or not NUM is intonationally prominent. For example, (11) followed by (12) results in an infelicitous discourse, which shows that the existence of three students wearing glasses is presupposed in (11).

(11)	[_NP_ MOD-*de*	NUM	N']
	Lisi xiang wen	dai yanjing de	san-ge	xuesheng,
	Lisi want ask	wear glasses de	three-cl	student
	'Lisi wants to ask **the three** students <u>wearing glasses</u>,'

(12)#danshi zhiyou   liang-ge xuesheng dai yanjing.
     but   only-have   two-cl   student   wear glasses
     'but only two students wear glasses.'

The same applies to (13), where NUM is intonationally prominent and preceded by MOD-*de*.

(13)	[_NP_ MOD-*de*	NUM	N']
	Lisi xiang wen	dai yanjing de	SAN-ge	xuesheng,
	Lisi want ask	wear glasses de	three-cl	student
	'Lisi wants to ask **THREE** (of the) students <u>wearing glasses</u>,'

(12) #danshi zhiyou   liang-ge xuesheng dai yanjing.
      but   only-have   two-cl   student   wear   glasses
      'but only two students wear glasses.'

In comparison, both (14) and (15) with no MOD-*de* preceding NUM may be followed by (12) felicitously whether or not NUM is intonationally prominent. This shows that the existence of three students wearing glasses is not presupposed in (14) and (15) and suggests that existential presuppositions do not follow from focus in the NP and are not indicated by the word order where NUM is not preceded by MOD-*de*.

(14)   [$_{NP}$ NUM   MOD-*de*   N']
     Lisi xiang wen   san-ge   dai yanjing de   xuesheng,
     Lisi want ask   three-cl wear glasses de   student
     'Lisi wants to ask **three** students wearing glasses,'

(12) danshi zhiyou   liang-ge xuesheng   dai yanjing.
     but   only-have two-cl student   wear glasses
     'but only two students wear glasses.'

(15)   [$_{NP}$ NUM   MOD-*de*   N']
     Lisi xiang wen   SAN-ge   dai yanjing de   xuesheng,
     Lisi want ask   three-cl wear glasses de   student
     'Lisi wants to ask **THREE** students wearing glasses,'

(12) danshi zhiyou   liang-ge xuesheng   dai yanjing.
     but   only-have two-cl student   wear glasses
     'but only two students wear glasses.'

The fact that the NP always has an existential reading when MOD-*de* precedes DEM/NUM suggests that the word order may indicate an existential presupposition. More needs to be said about uniqueness presuppositions, however, which apparently are not indicated by word order alone.

As the partitive reading in (13) shows, the order MOD-*de* NUM N' does not indicate a definite referring expression from which definite and uniqueness readings may be conversationally derived.

Given the interpretive patterns in (5), it is possible to simply associate the NPs in (5c) and (5d) with an existential and a uniqueness presupposition, and the NP in (5e) with an existential presupposition.

(5) a. DEM/NUM MOD-*de* N' → no uniqueness effect
     b. NUM [MOD-*de*]$_F$ N' → no uniqueness effect
     c. DEM [MOD-*de*]$_F$ N' → uniqueness effect
     d. [MOD-*de*]$_F$ DEM/NUM N' → uniqueness effect
     e. [MOD-*de*]$_F$ [DEM/NUM]$_F$ N' → no uniqueness effect

This would capture the fact that focus and structure combined may affect the NP readings and partially accounts for the interpretive differences among the NPs. However, such an analysis offers little explanation as to why the NPs should be linked to the presuppositions as they are and how all the NP readings are related.

3.3. Proposal

Alternatively, I propose that the NP structure that indicates structural focus on MOD-*de* also indicates a presupposition or felicity condition regarding the set of contextually relevant entities that satisfy the descriptive content of the NP. Namely, it is presupposed that the set satisfying the descriptive content of the NP consists of all the individuals satisfying the descriptive content of the NP that are

contained in the alternative set associated to the NP. In the following, I will show how and why such an analysis works.

I assume with Rooth 1985 and Stechow (1991:814-815) that a focused-expression has contextually selected alternatives, whereas a non-focused expression generates its own content as its alternative. In (3b), for example, focus on DEM associates the NP with the alternative set in (16), which contains gentlemen with glasses indicated by different acts of pointing and tells the participants of the conversation who the relevant individuals are for the purpose of the conversation. These alternatives give rise to the implication that there are several gentlemen wearing glasses in the relevant context and pointing selects one of them.

(3)　b.　[_{NP} MOD-*de*　　DEM　N'　]

　　　　　Dai　yanjing de NEI wei　xiansheng　shi　shei? (Wu 1994)
　　　　　wear glasses de that cl　gentleman　be　who
　　　'Who is **THAT** gentleman <u>wearing glasses</u>?'

(16)　THAT gentleman <u>with glasses</u> (pointing at location x)
　　　referent: the gentleman with glasses at location x
　　　Alternatives: { the gentleman with glasses at location x,
　　　　　　　　　　the gentleman with glasses at location y,
　　　　　　　　　　the gentleman with glasses at location z,
　　　　　　　　　　the gentleman with a hat at location x,
　　　　　　　　　　etc. }

In (1b), on the other hand, the non-focused DEM selects its own content as its alternative and associates the NP with the alternative set in (17), which contains gentleman with different assertable properties, all at the same location.

(1)　b.　[_{NP} MOD-*de*　　DEM　N'　]

　　　　　Dai　yanjing de nei wei　xiansheng shi shei? (Chao 1968:286)
　　　　　wear glasses de that cl　gentleman be who
　　　'Who is **the** gentleman <u>wearing glasses</u>?'

(17)　that gentleman <u>with glasses</u> (pointing at location x)
　　　referent: the gentleman with glasses at location x
　　　Alternatives: { the gentleman with glasses at location x,
　　　　　　　　　　the gentleman with a hat at location x,
　　　　　　　　　　the gentleman with a coat at location x,
　　　　　　　　　　etc. }

Crucially, the alternative set contains only one gentleman wearing glasses among other individuals within the range of the pointing, and these individuals constitute all those who are relevant for the purpose of the conversation. These alternatives give rise to the implication that it is the property of being a gentleman wearing glasses that singles out the NP referent from among others in a context which is relativized to the range of the pointing. A context appropriate for uttering (1b) is thus also appropriate for uttering the definite NP *the gentleman with glasses*, and we get the uniqueness reading in (1b).

In (4b), focus on NUM introduces a set of contextually selected alternatives to the numeral denotation. Since it is presupposed that the set of contextually relevant students wearing glasses consists of all the assertable students wearing glasses contained in the alternative set, the largest assertable number of students wearing glasses contained in the alternatives amounts to the number of students wearing glasses in the relevant context. For instance, in a situation where three students wear glasses, the largest number of students wearing glasses contained in P in the alternatives associated with the NP would be three, as in (18). Given the presupposition regarding the set of students wearing glasses contained in (18) and the asserted alternative that obtains, which contains two students wearing glasses in P, the NP in (4b) has a partitive reading.

(4)   b.   [$_{NP}$ MOD-*de*   NUM   N']
              Lisi wenle   dai yanjing de   LIANG-ge   xuesheng.
              Lisi asked   wear glasses de   two-cl   student
              'Lisi asked **TWO** (of the) students <u>wearing glasses</u>.' or
              'Lisi asked **the TWO** students <u>wearing glasses</u> (contrastive
              context required).'

(18)   TWO students <u>with glasses</u>
        The NP denotes the set of sets containing two students.[1]
        Alternatives: { { P | P contains two students wearing glasses},
                        { P | P contains three students wearing glasses},
                        { P | P contains one student wearing glasses},
                        { P | P contains two students wearing hats}, etc. }

If by context, it is presupposed that only two students wear glasses, then the largest number of students wearing glasses contained in P in the alternative set associated with the NP would be two, which is also the number of students wearing glasses contained in P in the asserted alternative that obtains. In this case, we get the uniqueness reading, and as shown in (4b), a contrastive context is required to satisfy the discourse function assigned by focus on NUM.

In comparison, the non-focused NUM in (2b) generates its own content as its alternative and associates the NP with the alternatives in (19).

(2)   b.   [$_{NP}$ MOD-*de*   NUM   N']
              Lisi wenle   dai yanjing de   liang-ge   xuesheng.
              Lisi asked   wear glasses de   two-cl   student
              'Lisi asked **the two** students <u>wearing glasses</u>.'

(19)   two students <u>with glasses</u>
        The NP denotes the set of sets containing two students.
        Alternatives: { { P | P contains two students wearing glasses},
                        { P | P contains two students wearing hats},
                        { P | P contains two students wearing coats}, etc. }

Since it is assumed that the contextually relevant set of students wearing glasses consists of all the assertable students wearing glasses contained in the alternative set, and the largest possible number of students wearing glasses

contained in P in the alternative set is two, it follows that the cardinality of the set of students wearing glasses in the relevant context is also two. The context appropriate for uttering (2b) is thus also appropriate for uttering the definite NP *the two students wearing glasses*, and the observed uniqueness reading falls out.

I need to point out that with my analysis, focus and the relative order of MOD-*de* and DEM/NUM indicate different presuppositions associated with the NPs, not differences in the 'purely truth-conditional' meaning of the NPs. For instance, (16) and (17) have the same denotation but are associated to different alternative sets that affect uniqueness readings of the NPs.

Also, NUM does not indicate existence or uniqueness, whereas DEM does in the range of the pointing. This distinction is responsible for the different interpretive patterns in (1)-(3) and (2)-(4). Namely, demonstrative NPs are definite referring expressions. NPs formed with numerals are not. Accordingly, the alternatives associated with demonstrative NPs are sufficient to give rise to the different readings in (1) and (3). Alternatives associated with NPs formed with numerals, on the other hand, tell us what the set satisfying the descriptive content of the NP consists of when MOD-*de* precedes NUM but not so otherwise. And therefore the structurally indicated presupposition is necessary for the different readings in (2) and (4).

4. Conclusion

I have shown that uniqueness readings of MC complex NPs may not be attributed to lexical meaning, word order, or focus alone, but may be computed based on truth conditional meaning, the interpretation of focus, and contextually provided information combined. I proposed an analysis where MOD-*de* preceding DEM/NUM indicates a presupposition regarding the set of entities satisfying the descriptive content of the NP, and crucially, focus-induced alternatives tell the participants of the conversation who the relevant (or salient) individuals are for the purpose of the conversation. The analysis provides a uniform account for the interpretive differences observed of demonstrative NPs and NPs formed with numerals and is based on general principles of focus and meaning interpretation that are not unique to MC.

NOTES

[1] I assume the standard analysis of NPs as generalized quantifiers, so we need to talk about two students contained in the set of sets here.

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REVIEW

Alaa Elgibali, ed.: *Understanding Arabic: Essays in Contemporary Arabic Linguistics in Honor of El-Said Badawi.* **Cairo: American University in Cairo Press, 1996. Pp. vii + 274, $39.00.**

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This is a collection of articles in honor of El-Said Badawi, whose seminal work on the interaction between Standard Arabic and the local dialect(s) in Egypt put the issue of so-called diglossia into sharper focus. The book contains six sections with a total of 15 articles dealing with a wide a range of topics that focus on various aspects of Arabic, historical, socio-cultural and educational and computational.

Some of the articles deal with long debated issues but from fresh perspectives. Ferguson's article "Epilogue: Diglossia revisited" looks at the problems of diglossia and related issues yet to be investigated almost fifty years after his groundlaying work on this topic. Ferguson addresses some of the problems with the original article, such as the fact that it somewhat dealt with High and Low varieties as discrete entities rather than as aspects of a linguistic continuum that can have different manifestations (or levels in the original work of Badawi). This topic of multiglossia, as opposed to diglossia, is taken up in detail in Hary's article, 'The importance of the language continuum in Arabic multiglossia" where it is proposed that Standard Arabic, Middle Arabic, and Colloquial Arabic are part of a continuum. This idea seems to echo long-held views on the existence of varieties of Arabic that are hybrids of colloquial and standard. The difference here is that in Hary's system, as I understand it, Standard and Colloquial do not make up discrete entities. However, it is not yet clear how the points in this continuum are defined (what the primitives are). It is difficult to see how that can be done without effectively recognizing that the different points in the continuum constitute discrete but highly interactive entities.

Other articles effectively highlight points directly relevant to Hary's article. Thus, Parkinson's article shows, on the basis of experimental evidence, that many 'speakers' of Standard Arabic have difficulties with some aspects of its grammar, such as the Case marking system. In such instances, the speakers rely mainly on their colloquial dialects. Along slightly related lines, the articles by Abdelfattah, Stewart, Ibrahim & Kennedy, and Wahba focus on the use of Arabic, mostly Egyptian, in various contexts.

Arabic and history receive welcome attention in this book. The contribution by Versteegh deals with the question of why language origin as a topic of study did not receive the attention it deserves from the traditional Arab grammarians. On a different note, the article by Agius discusses some aspects of Siculo-Arabic, spo-

ken in Sicily around the 11th to the 13th centuries, and in that respect makes a fruitful addition to relatively recent work on the Arabic dialects of Spain. Along similar lines, Carter's contribution deals with changes from Classical to modern Egyptian colloquial with special emphasis on the verbal system.

All these articles connect either explicitly or implicitly with Arabic applied linguistics and particularly with the issue of teaching Arabic as a foreign language. The three articles, by Nielsen, P. Stevens, and Jiyad, deal directly with this topic, though each focuses on different aspects of the problem. The article by Samy discusses the problems that arise when trying to do a computerized frequency count in Arabic, while V. Stevens's article chronicles the difficulties one faces when preparing an English-to-Egyptian Arabic dictionary.

I would like to close this review with some comments about the introduction written by the editor. The introduction can by itself be considered a full-fledged contribution, since it does not just introduce the various topics and articles in the book but discusses important issues that no article in this collection deals with directly, but that are central to the study of Arabic language and linguistics. Prominent among these issues is the question of whether Classical or modern Standard Arabic can be a legitimate object of study, particularly within formal linguistics. Starting from the viewpoint that modern formal linguistics, particularly generative linguistics, aims to model speakers' competence, by relying mainly on their intuitions, the author concludes that since one cannot confidently claim to have intuitions about Standard Arabic, subjecting it to formal linguistic study becomes questionable. As to whether the wealth of descriptive and literary work in Standard Arabic that has accumulated over more than 15 centuries can provide reliable data for study, Elgibali claims that this 'general contention is a fallacy'. The main reason for this assertion is that Classical Arabic was not the native language of any speech community. It was a literary language which 'culled many of its features from the prestigious dialect of the Quraysh tribe, from other colloquial dialects, and from older archaic characteristics that were almost extinct'. This is a rather bold claim, for as far as I know, apart from limited instances of free variations that are in the main lexical and phonological in nature, no one has provided arguments that show that the syntax and morpho-phonology of Classical Arabic is a hybrid of features 'culled' from various dialects (whatever that means). In fact, within modern syntactic theory this claim is not even coherent because a grammar is a system of principles and constraints that are in general not construction-specific. Moreover, the fact that Classical Arabic was a literary language at some stage does not automatically imply that it did not start as, or more accurately evolve from, the native language of a community whose socio-economic and cultural status propelled its language/dialect to such dominant status. At any rate, even if we put history aside, the fact that Standard Arabic is a living language in the sense that it is used in various domains (media, literature, social and hard sciences) makes it a legitimate object of study that aims to model the competence that underlies the ability of its users to understand the linguistic input they are exposed to. Of course, the nature of the language may limit the dimensions of study, as in every of field of science, but that does not rule out Standard

Arabic as a legitimate object of scientific linguistic study. After all, major works on stress, word order, tense, aspect, word formation, etc., have relied on evidence from languages that are not even in use today (extinct) such as Latin, Sanskrit, Classical Greek, Old English, Akkadian, etc. The assumption underlying these studies is that the data that have come down to us did represent the competence of the native speakers of those extinct languages. It would be a mistake to compare Standard Arabic to these languages, given the fact, as I mentioned earlier, that it is a live language, evn though in its usage it is context-specific. But the main point is that from the data available, one can make empirical generalizations that can be subjected to formal linguistic analysis. In fact, the Elgibali himself refers to a study he undertook that basically found that when Arabic speakers are asked to give judgments about Standard Arabic data, they tend to rely on their knowledge of the colloquial. This study by the author seems to start with reasonable criteria of what is 'correct' and what is 'not correct' in Standard Arabic. This is to a large extent what the formal linguist tries to model. The argument concerns criteria of scientific research and is independent of the whole issue of the relation between Standard Arabic and the colloquial dialects and the various facets of that relation (social, religious, political, and educational). Nonetheless, the point implicit in Elgabali's introduction that the study of the colloquial dialects should get more attention is well taken. The modern dialects, for various reasons, have unfortunately not been high on the agenda of linguistic research, formal or otherwise. Fortunately, the articles in this volume provide valuable contributions towards that objective.

Overall, this book is a valuable contribution to applied Arabic linguistics and sociolinguistics. The articles it contains will certainly help advance the debate on the central issue in Arabic linguistics, namely the role of the Standard variety and the various facets of its interaction with the colloquial dialects.

REVIEW

Christoph Gutknecht & Lutz J. Rölle, *Translating by Factors*.
SUNY Series in Linguistics. Albany: State University of New
York Press, 1996. Pp. 346. $23.95.

Ladislav Zgusta

This book offers a unified theory of translation, together with valuable advice on how to make necessary choices when translating. The basic operative notion is that of 'factors': the term refers to any point of grammar, pragmatics, style, culture — anything germane to translation — whether it makes the task easier or more difficult, particularly felicitous or next to impossible, and everything in between. Hence, there are, among many others, variance factors, i.e. points on which the S(ource) L(anguage) and the T(arget) L(anguage) structurally or factually differ; invariance factors referring to points of identity; blocking factors, which make a direct translation impossible and necessitate the selection of an indirect path; incompatibility factors, which exclude one of the possible meanings of an ambiguous expression or phrase; compensation factors, which remedy the effects of the blocking factors; optimizing factors, which bring about translations that are particularly adequate for a specific need, etc. Such factors can be found in the grammar, semantics, pragmatics, styles, etc. of pairs of languages: the book apparently does not state it explicitly, but it goes without saying that each pair of languages will have a set of such factors of its own.

The factual substratum of the book is the contrastive analysis of translated contexts (called 'renditions') which exemplify the grammatical and semantic area covered by English and German modal verbs (and their functional synonyms or functionally similar elements). The analysis is undertaken in the style established as norm by transformational studies, namely, by testing the grammaticality or ungrammaticality of pertinent sentences. The analysis is very detailed. For instance, the would-be translator is told of differences such as this one: the German modal verb does not always have a modal-verb counterpart in English, but instead an English (phrasal) synonym of the modal verb.

> *He must can come,   **but**
> He must be able to come.
> Er muss kommen können.

Using the terminology of the book, we can say that for G → E translation, the first sentence illustrates a unidirectional blocking factor, whereas the second and the third sentences exemplify a bidirectional variance factor, both in G → E and in E → G translation.

The detailed character of the analysis sometimes carries the investigation to the borderline of lexical phenomena; cf.

*This was could done well by him.
This was done well by him.
Das wurde von ihm gekonnt.

In my opinion at least, the semantic effect of the German verb here is lexically restricted, forming something close to an idiom.

The possible occurrence of, e.g., ellipsis can be distributed differently; cf.

He can speak English.
*He can English.
Er kann Englisch sprechen.
Er kann Englisch.

Aside from contrastive grammar, the authors offer many fine-grained lexical observations of equivalence; cf.

Mussheirat	shotgun wedding
Mussehe	involuntary marriage
Sollarbeitsstunden	nominal work-hours
Sollbestand	presumed assets
Solleinnahmen	supposed/estimated receipts
Sollreichweite	rated coverage
Sollstärke	
(military)	required strength
(technical)	paper strength.

The chapter on semantic factors deals predominantly with multiple meaning, which frequently, or even usually, differs in these two (and any two) languages. While it will surprise no one that, e.g., Eng. *may* goes into German as *mögen* if referring to a possibility but as *dürfen* if the sentence is about permission, there are a number of phenomena that complicate the picture. Cf.

Kann das der Postbote sein?
Can this be the postal carrier?
*May this be the postal carrier?   **but**

Das kann der Postbote sein.
This may be the postal carrier.
*This can be the postal carrier.

The book tries to establish not only the semantic features of the contexts that require different translations, but also the disambiguating factors in the form of the sentences, clauses, and words that could prospectively be useful to a MT program. That some of them remain unclear because of gradience, merger, or other factors will come as no surprise. In this context, it would perhaps have been advantageous to stress more the greater difficulty of the situation in which it is the SL that shows a broader polysemy than the TL, over the difficulty of the reverse situation: if English has only one form of pronominal address, *you*, it is the translator's exclusive responsibility to determine, from the degree of intimacy depicted in the text, how individual persons in a novel (in the TL) will address one an-

other. If, on the other hand, Czech has only one word, *noha*, to refer to both the leg and the foot, there is no such burden of choice.

Occasionally it would seem that for the authors, disambiguating factors are sought too remotely in the extralinguistic world. So, e.g. (p. 48), the meaning of the sentence *You can build this vacation cottage yourself* is said to depend on the addressee's physical capacities, his technical know-how, his financial resources, the simplicity of the house's design, the availability of land, the availability of building materials, and other matters. It would seem that while the observation itself is undoubtedly correct, if we consider this sentence with the sheerly practical purpose of translation in mind, we must conclude that these factors could be relevant only in a particularly ambiguous context in which disambiguation would have to be sought in a different passage of a long novel, or in the context of the situation.

The chapter on what are called pragmatic factors deals mainly with illocutionary effects and how they are to be translated. It is in this context that I would like to mention a problem. The authors found bilingual and trilingual texts that are no doubt equivalent, e.g., a leaflet of the Deutsche Bundesbahn, which contains the following (p. 144):

This leaflet **gives** you information on the timetable and ... .
Dieses Faltblatt **möchte** Sie über den Fahrplan und .... informieren.

It seems to me that the German modal verb here is a product of a certain German style, considered perhaps modest or polite, which prefers subjunctives to indicatives in certain contexts. It is certainly part and parcel of the accomplished mastery of a translator to know how the indicatives in one language correspond to the subjunctives in the other, and when he should introduce the difference into the translation. It is also good to know (and the book under review has a passage on this) that there are degrees of so-called freedom in translating. It is undoubtedly the case that on account of idiomaticity and stereotypic structures, translation must be a process not tied to individual words. For instance, the English tag question requires idiomatic translations, as seen in

He can go there, can he?
Er kann also dorthin gehen, ja?   **or**
Das heisst (also), er kann dorthin gehen?

As is well known, comparison of well-translated texts shows many skillful ways of dealing with such problematic cases. However, juxtaposing texts, particularly official ones, involves a danger that we shall illustrate by the following example. Railways in Central Europe used to give, and indeed still do in express train coaches that are not air-conditioned, various short instructional texts in several languages, directed at the traveller. The German text at the windows has always been '*Nicht hinauslehnen!*' (= Do not lean out). The other languages (e.g., French) expressed the idea equivalently; only Italian, however, says '*E pericoloso sporgersi*' (= It is dangerous to lean out). The reason for this is clear: for a reasonable Italian, a mere bureaucratic rule is not something to take seriously, let alone

obey, so appeal is made to his sense of self-preservation. I think this does not come within the domain of 'translation' in the usual sense: functional, communicative equivalence is achieved by using two distinct contexts in the two languages as these contexts are used in each of the languages in identical but non-bilingual situations. Admittedly, to find the precise boundary between linguistic equivalence in the narrower sense in its various degrees of freedom, and this communicative equivalence, is no simple task.

Whatever our attitude to the problem just mentioned, the main thing is to realize that translation is something quite different from comparative lexical semantics. The authors quote from a bilingual information sheet used at the Intercontinental Hotel in Frankfurt:

Erwarten Sie einen Anruf? Dann sagen Sie bitte in der Telephonzentrale
    Bescheid....
Expecting a phone call? Please advise the telephone operator ...

The *advise* in the English text for the German *sagen* is, of course, excellent: just as the German modals can connote modest politeness, particularly in euphemisms such as *Ihr Sohn hätte vorsichtiger sein sollen,* this *advise* carries a connotation of an action that will be taken seriously.

The book concludes with a consideration of the 'units of translation', i.e., translating by words, by clauses, by sentences, or by even larger parts of texts, and with a general consideration of the tasks of a really good translation, including even explanatory translation (such as, e.g., translating *send his son to Eton* as *seinen Sohn in eine der teueren Privatschulen zu senden*). Particularly useful is the formulation of the requirement extending beyond the knowledge of both grammars: we hear (p. 168) that the translator should be 'acting as a paranative speaker and biculturalist'. Although not everyone will follow the authors in calling all the phenomena involved 'factors' (particularly not 'felicity factors', given that the same factor can be felicitous in one constellation but infelicitous in another) the book will be most useful for honing the beginning translator's realization of how complicated a task translation is. Also, this book constitutes a fine sample of a detailed contrastive grammar of a particularly difficult area of the two languages discussed.

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REVIEW

Alexander M. Schenker. *The Dawn of Slavic: An Introduction to Slavic Philology.* New Haven: Yale University Press, 1996. Pp. xi + 346, \$46.00.

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As the name of a discipline, we read in the Preface, philology has gone out of fashion, having long since split into linguistics and literary studies. Nevertheless, Slavic philology 'remains a convenient cover term for the study of the earliest linguistic manifestations of Slavic culture'ß. Schenker's introduction to Slavic philology is broad in scope. Its main sections are 'Historical Setting' (1–60), 'Language' (61–164), and 'Early Writing' (165–239). The appendices include 'The Rise of Slavic Philology' (241–52) and a set of beautifully executed 'Samples of Early Slavic Writing' (261–302). The bibliography runs 33 pages. Under 'Historical Setting' the author discusses the original homeland of the Slavs, the 9th-century mission of Cyril and Methodius that brought writing to the Slavs, and various early writers' accounts of Slavic peoples. Under 'Early Writing' he discusses paleography, the recensions of Old Church Slavonic, scribal practices, and the genres of early Slavic writings.

Readers of *SLS* will be chiefly interested in what Schenker has to say about language, and I will limit my remarks to that section, even if this means not doing justice to the book as a whole. For the student of Slavic culture these hundred pages, covering developments from Proto-Indo-European to Late Proto-Slavic, may provide adequate preparation for the linguistics part of the Ph.D. exam given in most departments of Slavic languages and literatures in North America. Other goals are possible for the study of Slavic languages, however. Studying languages is indispensable for the study of Language, and over the years my teaching and learning have been animated by the belief that studying Slavic languages is as good a way of studying Language as the next. At least it can be, provided that Slavists make their findings accessible to other linguists and remain receptive to theirs.

In the area of phonology, the subject of pages 61–103, communication among linguists is made possible by the use of a uniform, hopefully universal, set of distinctive features. Schenker touts the importance of distinctive features for half a page, but concludes by stating: 'In spite of these advantages, the formalization of the distinctive-feature analysis is unwieldy and will not be used in the present survey' (64). Gratuitous formalization, to be sure, is unwieldy; we needn't clutter the page with columns of distinctive features when a simple ĭ > ě will do. But distinctive features bring discipline to language description, exposing analyses that cannot be expressed in them. I raise the issue of the so-called yers (jers), the lax high vowels ĭ and ŭ, which all Slavic speakers had a millennium

ago but in the two following centuries either dropped or merged with other vowels. In discussing yers, Slavists have been known to impose on non-Slavists the cyrillic letters ь and ъ. This does no harm as long as the same +sonorant, -consonantal, +high, and -tense segments are understood. Problems arise only when we start taking these letters seriously and propose 'sound changes' like ĭ > ь; ŭ > ъ, as Schenker does on page 99. With this change, he writes, 'the allophonic coloring of the old short vowels received a fully phonemic identity'. What the distinctive features of that coloring or identity were, he does not say. Schenker follows the '[r]ise of qualitative distinctions in the vowel system' (99), which resulted in yers, with the '[r]ise of new quantity oppositions' (100), which among other things resulted in inherited long high vowels, as in Cz. *síla* 'force', being differentiated from shortened high vowels, as in gen. pl. *sil*. This raises the question, how many quantity oppositions were there? Did high vowels in Late Proto-Slavic show three degrees of length, *í* vs. *i* vs. ь? Or were ь and ъ, since they are reflected in all Slavic languages as -high vowels wherever they were not dropped, -high already at this point? The table on page 102 shows the yers aligned with *e* and *o* as mid vowels. This is not commented on in the text, so perhaps it is a misprint. On the subject of yers, the chief initiator of distinctive-feature analysis, Roman Jakobson, was more guarded. In his paper at the Fifth International Congress of Slavists in Sofia in 1963, he wrote: 'For a brief period in the prehistory of the Slavic languages the former short high vowels formed the new prosodic category of reduced vowels, ъ, ь' (164). What was prosodically distinctive about the yers was their new inability to bear the word stress, as for example end-stressed*nožĭ* 'knife' (nom. sg.) became root-stressed *nóžь*. Whatever coloring accompanied this prosodic change may have been allophonic. Perhaps the author should not be criticized for not leading the future student of Slavic culture into unsettled areas of Slavic phonology. Still, for the future linguist, it is just those areas that should be of interest.

From the same perspective, I wish to raise the matter of syllable structure and syllabification, which has been receiving so much attention of late (although not in Slavic, to judge by the bibliography). Schenker believes that in Proto-Indo-European and Early Proto-Slavic '[t]he semivowels *i̯* and *u̯* were in complementary distribution with the vowels *i* and *u*, respectively, functioning as their nonsyllabic allophones' (82). It is only in Late Proto-Slavic that the nonsyllabic allophones of *i* and *u* are said to undergo consonantization to *j* and *v*. 'When the monophthongization of diphthongs limited the semivowels to the prevocalic position, *i̯* and *u̯* began to acquire the consonantal status since they now occupied the position of consonants in the *CV* syllabic formula' (101). But even before the monophthongization of diphthongs, at the stage where *pěti* 'to sing' was still **poitei* and 1sg. pres. *pojǫ* was still **poi̯ōm*, the latter was syllabified **po.i̯ōm*, and **i* was the onset C of its syllable. (Unlabeled and unstarred forms are Old Church Slavonic.) Schenker claims that 'morphological patterning' played a role in the consonantization of *i̯* and *u̯*, since *moi̯a* 'my' and *nou̯-a* 'new' had the same structure as *vaš-a* 'your' and *star–a* 'old'. But a high vowel between two nonhigh vowels will always syllabify with the latter, regardless of morphological patterning (assuming

phonemes can pattern morphologically). It is only forms with a sequence of high vowels that provide a test for Schenker's claim, whether they will syllabify appropriately if none of them is marked for syllabic role. Take the verb 'sew', where 3sg. pres. *šijetŭ*, and the past passive participle *šĭvenŭ*, show the root allomorphs *ši-* and *šĭv-* and point to a shared root /sjū/ or /sjuu/ (diachronically, both are derived from *sjū-* or *sjuu-*). If we represent *šijetŭ*, as /siuuietu/ (diachronically, try to derive it from *siuuietu*), will syllabification rules yield the correct output? I fear they will syllabify this form as /si.uu.ie.tu/ and give **/sĭvŭjetŭ/. Or take *slaždĭše* 'sweeter' (masc. pl. nom.), in which the root, /sold/, shows iotation (yodization) before the comparative suffix /jisj/. If /j/ is really /i/ and this form is to be represented as /soldiisie/, will it not syllabify as /sol.dii.sie/ and surface as **sladiše? Schenker chides linguists for representing *i* and *u* as *y* and *w* 'when their phonetic value is fully predictable' (77). But how much thought has he given to rules for predicting that phonetic value?

Related to questions of syllabification is Schenker's handling of the consonant clusters **tj*, **dj*, which he represents as *t̯i̯*, *d̯i̯*. They are of particular interest to Slavists because they have at least four different reflexes in West, East, Southwest, and Southeast Slavic. For students of Slavic culture having to satisfy their linguistics requirement, the simplest route may be simply to learn those reflexes as they are given at the bottom of page 95. But the future linguist may want to know why: how was the assibilation of **tj*, **dj* variously ordered relative to other sound changes involving palatal consonants so as to explain the variety of outcomes? Starting with *t̯i̯V*, *d̯i̯V*, where *i̯V* was a rising diphthong forming the syllabic nucleus, these syllables were restructured with *i̯* becoming +consonantal *j* as it shifted from syllable nucleus to syllable onset, a necessary step in assibilation. If in West Slavic the results of this assibilation fell together with the results of the second regressive palatalization of *k* and *g*, which had occurred earlier, whereas in East and South Slavic they did not, it may well be because in West Slavic the resyllabification of *t̯i̯V*, *d̯i̯V* occurred earlier. It is surely no coincidence that the resyllabification of the high back vowel in **ku̯ĕ-* and **gu̯ĕ-* may also have occurred earlier in West Slavic than in East and South Slavic. Here too the results are different. West Slavic preserves the velar (Po. *kwiat* 'flower', *gwiazda* 'star'), while East and South Slavic palatalize it (Ru. *cvet, zvezda,* Bg. *cvjat, zvezda*)). Mareš (*Slavia* 25.470) proposed that the early consonantization of **ku̯ĕ-* ,**gu̯ĕ-* to **kvĕ-*,**gvĕ-* in West Slavic prevented a frontness-assimilated -*u̯ĕ*- from palatalizing the velar as it did in East and South Slavic. I do not fault the author for not exploring these vistas (he does list the Mareš article and its two translations in the bibliography). But I think his proposing an Early Proto-Slavic shift *t̯i̯, d̯i̯ > t', d'* (85), which is problematical both for its *i̯* input and for its nonaffricate output, is a hindrance to a fuller understanding of these changes.

The author states in the Preface that the 'introductory nature of the book ... mandates a preference for conservative solutions, for keeping close to the mainstream of the discipline, and for shunning the cross-currents of scholarly controversy' (xv). With regard to Slavic accentuation he indeed shows a preference for conservatism, but in so doing I think he departs from the mainstream. Christian

Stang's *Slavonic Accentuation* (Oslo 1957) is regarded by many Slavists as epoch-making, the starting point for much of the exciting new work being done in this field. A central feature of Stang's book is the rejection of the law of de Saussure and Fortunatov for Slavic, by which word accent advanced from a circumflex syllable to a following accute syllable, as formerly thought to have happened in Ru. *ruká* 'hand' (nom. sg.), but not in *rúku* (acc. sg.). However, Schenker's Yale colleague Edward Stankiewicz rejects Stang's revision, and so does he. Schenker considers the accentuation of Slavic wordforms 'an autonomous Slavic development conditioned by the law of Saussure/Fortunatov and serving a blend of phonological and morphological functions' (96). My own limited work in accentuation, mostly in Russian, has not equipped me with the Lithuanian, Slovene, and other data that one would need to stand up to Yale on this issue. But on the basis of the Russian examples Schenker discusses on pages 96–7, it does not appear that the two 'opposing camps' are that far apart. Both recognize a class of accented (A) roots that condition fixed accent in the wordforms containing them, e.g., *berëza* 'birch', *berëzovyj* 'of birch', *berëznik* 'birch grove', and a class of unaccented (C) roots that allow the accent to be mobile, e.g., *béreg* 'shore' (nom. sg.), *beregá* (nom. pl.), *ná bereg* 'onto the shore', *beregovój* 'of the shore'. They seem to differ mainly with regard to what Stang classified as postaccented (B) roots. Their existence Schenker acknowledges somewhat grudgingly: 'The accentual patterns of the Slavic languages (chiefly East and South Slavic) demand the reconstruction of the *oxytonic* or word-final stress, whose Late Proto-Slavic motivation appears to be wholly morphological and lexical' (97). 'Word-final' is an unfortunate substitute for reference to the root, because word-final accent coincides with post-root accent only for wordforms with root stems. Thus for the root adjective 'black', the predicative forms *černá, černó, černý* show stress that is both post-root and word-final. But the attributive forms of adjectives are compound and subject to metatony, with B adjectives like 'black' retracting the stress to the root (*čërnyj*) and C adjectives like 'young' retracting it to the first vowel of the compound ending, thus *molodój, molodája,* etc. (cf. the predicative forms *mólod, mólody, molodá*). Therefore the derived noun *molodéc, molodcá* 'brave fellow' cited by Schenker is irrelevant, as is the attributive adjective form *voronój* 'raven black'. Nor do Ukr. *dasý, dasté* 'give' (2sg., 2pl. pres.) and Ru. *nesú, nesëš', neslá, neslí* 'carry' belong here, since both have unaccented (C) roots, as shown by Ru. *ne dalá, né dali* and Middle Ru. *pónesu, pónesli*. Schenker's position on accentuation is thus another reason why I do not recommend his book as an introduction to Slavic linguistics, however considerable its merits for other purposes.

Phonology takes up only a third of the language section, the second two-thirds is devoted to morphology, syntax, and lexicon. I found this part interesting reading. The seasoned Slavist will always benefit from being walked through Old Church Slavonic by a more seasoned Slavist. But I wonder about the intended audience. This 60-page sketch will not serve them in lieu of a grammar. Wouldn't their time be better spent working with texts and discovering these things for themselves? A few points call for comment. Discussing derived nouns with the suffix *-ŭk-* such as *klĕtŭka* 'cage' and *pętŭka* 'number five', Schenker includes

also *bajĭka* 'fable' and *rǫčĭka*, which he glosses as 'handle'. 'The front-jer variant occurred after soft consonants', he deadpans (118). This is clear in the case of *baj-*, for which he adduces Ru. *bájat'* 'to speak'. But in adducing *rǫka* 'hand' he does not account either for the front yer of *rǫčĭka* or for its soft consonant. An exlanation for both is offered on page 21 of a book listed in the bibliography, Horace Lunt's *The Progressive Palatalization of Common Slavic* (Skopje 1981). Lunt notes that OCS *rǫčĭka* is not the diminutive of *rǫka*. It means 'jar' and is the diminutive of an unatttested noun **ronk-j-a* meaning '(large) container', which is related to Lith. *renkù* 'I gather' similarly as *volja* 'will' is related to *veljǫ* 'I command'. Thus the fronted variant of *-ŭk-* occurs because it follows the derivational suffix *-j-*. (This, of course, does not explain why *rúčka*, the diminutive of Ru. *ruká* 'hand', shows root-final palatalization.) Next, the perfective-imperfective aspect pairs listed on pages 136–7 include errors and dubious pairings. *Uvěriti* 'convince' and *uvěrovati* 'entrust' are both perfective; *pečaliti sę* and *pečalovati sę* 'grieve' are both imperfective; for *dariti* and *darovati* 'bestow' it is the former that is imperfective, the latter is biaspectual; *svьtěti* 'shine' is not aspectually paired with *svitati* 'dawn', nor *žędati, žęždǫ* with *žędati, žędajǫ* 'thirst'. These matters are easily checked in Antonín Dostál's *Studie o vidovém systému v staroslověnštině* (Prague 1954), an indispensable work unaccountably missing from the bibliography. Two lesser points: the prefix *vъz-* does have a homophonous preposition (135) — *vъz* 'for, by' — and the instr. sg. form of the demonstrative pronoun *tъ* (127) is of course *těmĭ*, not *tomĭ*. The four-page listing of the Proto-Slavic lexical stock (155–9) is useful, but how much more if it were accented! We know, for example, that **solma* 'straw' was a type A, **borzda* 'furrow' was a B, and **kosa* 'scythe' was a C.

Apart from these disagreements, unavoidable beween a Structuralist author and a post-Structuralist reviewer, it must be said that *The Dawn of Slavic,* with its comprehensive coverage of early Slavic literary culture, its well-reproduced sample texts, and many other valuable features, is a welcome addition to the Slavic studies reference shelf.

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