

TOWARD AN UNDERSTANDING OF SOME IDEOPHONES OF COLOR IN EMAI

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Ideophones occurring with verbs of color in Emai, an Edoid language of Nigeria, are examined with respect to their formal and functional properties. On the basis of formal analysis, a marked and unmarked class are identified. To a degree this grouping is maintained under semantic analysis. All members of the marked class but only one of two in the unmarked class refer to the semantic dimension luminosity, while the remaining member of the unmarked class refers to the dimension saturation. Closer inspection shows that reference to opposing values of the luminosity dimension is made by what seem to be opposing patterns of formal representation, patterns wherein the single form referring to saturation does not participate and patterns which reveal a systematicity underlying the apparent non-uniform formal character of the entire set of ideophones. As a final note the holistic morphological nature of these ideophones is highlighted and compared to forms which in psycholinguistics are viewed as unanalyzed.

On examinera en fonction de leurs propriétés formelles et fonctionnelles certains idéophones qui apparaissent avec des verbes de couleur en Emai, une langue Edoïde du Nigéria. Sur le plan de l'analyse formelle, une classe marquée et une classe non marquée sont identifiables. Ce regroupement peut dans une certaine mesure être conservé pour l'analyse sémantique. Tous les membres de la classe marquée mais seulement un sur deux dans la classe non marquée se réfèrent au concept sémantique de luminosité tandis que le membre restant de la classe non marquée se réfère au concept de saturation. Une analyse plus fine montre qu'en se référant à des oppositions de valeur dans la dimension de la luminosité on se réfère à ce qui paraît être des structures de représentation formelle opposées, structures au sein desquelles une seule forme se référant à la saturation n'est pas fonctionnel et structures qui révèlent une systématisation sous-jacente au caractère formel apparemment non uniforme du groupe des idéophones en entier. Pour terminer, la nature morphologiquement holistique de ces idéophones sera mise en valeur et comparée à des formes qu'on considère en psycholinguistique comme analytiquement impossible.

O. INTRODUCTION

The term "ideophone" has been used at least since Doke (1935) as a description for phonologically and grammatically irregular word forms found in many African languages. Recent attempts to characterize ideophones precisely have had to grapple with increasingly more detailed analyses and the consequent need to weigh individual criteria for their proper role in defining this obvious but elusive grammatical phenomenon (Courtenay 1976, Newman 1968, and Welmers 1973). In the following we touch on a potential refinement of one such criterion, but only after discussing ideophonic forms in the semantic field of color in Emai, an Edoid language of Bendel State, Nigeria.²

Though no statement of the definitive properties of the ideophone exists, one can discern a consensus regarding its prototypic formal qualities. Welmers (1973) more than any other investigator has touched on this matter, and we rely heavily on him. Those formal properties he advances as typical of an ideophonic form include reliance on a single vowel, utilization of a peculiar tonal pattern relative to other word forms in the language, and presence of morphological reduplication. To be sure, it is not claimed that every form exhibiting these properties is an ideophone, or that every ideophone exhibits these properties. Rather, the argument is that these properties together, or in some combination, are usually present in ideophones.

Our understanding of the semantic or functional properties of ideophones is not as well grounded, leading one to recognize a general aura of uncertainty. One index of this is what might be called the category debate. At issue is whether the semantic quality of ideophones is basically descriptive or predicative (Doke 1935, Fortune 1962 and Kunene 1965). Intensifying this debate is Samarin's (1965) contention that ideophones constitute a distinct word class, presumably one with neither the traditional predicative quality of verbs nor the descriptive quality of adjectives and adverbs.

Additional uncertainty about the semantic nature of ideophones is registered by the claim of instability. Advocates of this position argue that ideophones are impulsively generated and ideosyncratic in nature, making it extremely difficult to identify a consistent sound shape to which a stable meaning might be assigned (Cole 1955, Maduka 1982). Such debate does not augur well for one approaching an analysis of ideophones, although the lack of intense investigation of particular semantic domains may have led to this predicament.

1. COLOR IDEOPHONES IN EMAI

The Emai forms to be discussed, though exhibiting properties typical of ideophones, do not each manifest these properties to the same extent. In fact, it is the non-uniformity of these

ideophones which will engage our attention as we consider, in order of presentation, their distributional behavior, semantic characteristics, and formal properties.³

1.1 DISTRIBUTION

A number of investigators in the past have argued that ideophones exhibit unique distributional constraints. The Emai ideophones follow this pattern, since they occur only in construction with the stative verbs **bī**, **fū̀àn**, and **vbā̀è**, each of which refers to color. Similar patterns of lexical dependency have been identified for Hausa (Newman 1968) and Ewe (Westermann 1930) for example, but there has been little comment on the degree of dependency shown by various ideophones within a semantic field.

To grasp the lexical dependency of the Emai forms, we will consider the constructions in table 1 and table 2. On the basis of the observable distributional patterns, there would appear to be two classes of Emai ideophones: one we refer to as marked and the other as unmarked. Taking table 1 first, we notice that the forms **hū̀yā̀hū̀yā̀** and **wḕwḕ** occur with each color verb. Since their distribution is relatively unrestricted they constitute the unmarked class.

Table 1. Distribution of ideophones **wḕwḕ** and **hū̀yā̀hū̀yā̀** with verbs of color

ṑ-bī wḕwḕ	ṑ-bī hū̀yā̀hū̀yā̀
ṑ-fū̀àn wḕwḕ	ṑ-fū̀àn hū̀yā̀hū̀yā̀
ṑ-vbā̀è wḕwḕ	ṑ-vbā̀è hū̀yā̀hū̀yā̀

A second dependency pattern, limited to the forms **dū̀dū̀dū̀**, **kḕkḕkḕ**, and **rī̀rī̀rī̀**, is shown in table 2. Each of these forms co-occurs with only one color verb; any other pairing of verb and ideophone is ungrammatical. Due to this relatively more constrained distribution, we refer to these ideophones as marked. As a final note concerning the ideophones in tables 1 and 2 we mention that they cannot co-occur with one another in a construction; they are indeed mutually exclusive.

Table 2. Distribution of ideophones **dū̀dū̀dū̀**, **kḕkḕkḕ**, and **rī̀rī̀rī̀** with verbs of color

ṑ-bī dū̀dū̀dū̀	ṑ-fū̀àn kḕkḕkḕ	ṑ-vbā̀è rī̀rī̀rī̀
*ṑ-bī kḕkḕkḕ	*ṑ-fū̀àn dū̀dū̀dū̀	*ṑ-vbā̀è dū̀dū̀dū̀
*ṑ-bī rī̀rī̀rī̀	*ṑ-fū̀àn rī̀rī̀rī̀	*ṑ-vbā̀è kḕkḕkḕ

Another type of distributional constraint peculiar to some ideophones is discussed by Newman (1968). In Hausa and Tera, for example, descriptive adverbial ideophones are limited to affirmative, declarative sentences, and do not occur in questions, imperatives and negative sentences. As a consequence, the restriction

to an affirmative sentence type was suggested by Newman as a potential defining characteristic of ideophones. Though syntactically adverbial, color ideophones in Emai are not subject to such a constraint, since, as table 3 indicates, they occur in both yes/no questions and negative constructions. The affirmative sentence constraint therefore may hold for some but not necessarily all ideophones.

Table 3. Color ideophones in question constructions and in negative (-i- 'not') constructions

<u>ō</u> -bī dūdūdū?	<u>ō</u> -bī wēwē?	<u>ō</u> -bī hūyāhūyā?
<u>ō</u> -fūān kēkēkē?	<u>ō</u> -fūān wēwē?	<u>ō</u> -fūān hūyāhūyā?
<u>ō</u> -vbāē rīrīrī?	<u>ō</u> -vbāē wēwē?	<u>ō</u> -vbāē hūyāhūyā?
<u>ō</u> -ī-bī dūdūdū	<u>ō</u> -ī-bī wēwē	<u>ō</u> -ī-bī hūyāhūyā
<u>ō</u> -ī-fūān kēkēkē	<u>ō</u> -ī-fūān wēwē	<u>ō</u> -ī-fūān hūyāhūyā
<u>ō</u> -ī-vbāē rīrīrī	<u>ō</u> -ī-vbāē wēwē	<u>ō</u> -ī-vbāē hūyāhūyā

1.2 SEMANTIC PROPERTIES

Given the lexical dependency illustrated in the preceding section, one naturally would expect that the Emai ideophones would refer to semantic dimensions underlying the formation of color categories in natural language. In the standard representation of color space, such as in Kay and McDaniel (1978), these dimensions are hue, luminosity, and saturation. Of these, hue is a measure of the chromatic quality of a color, for example, blue, green, yellow or red; luminosity is a measure of the bright (as opposed to muted) quality of a chromatic or achromatic color; and saturation is a measure of a color's purity, the extent to which it is diluted by grey.

As argued elsewhere (Schaefer to appear), Emai has three basic color categories in the sense of Berlin and Kay (1969). Two color terms, **vbāē** and **bī**, encompass colors representing more than one of the focal areas established by Berlin and Kay: **vbāē** refers to red, yellow, orange, brown, and pink; and **bī** refers to black, green, blue, and purple. The remaining form **fūān** refers to colors defined by a single focal area, white. It is these color categories, and only these categories, that the ideophones discussed herein modify.

At this point it will prove useful to identify the general meaning of the Emai ideophones by comparing their denotative capability to that of other non-ideophone modifiers. The resulting constructions clearly show that the ideophones **wēwē** and **hūyāhūyā** exhibit a range of denotation different from the ideophones **dūdūdū**, **kēkēkē**, and **rīrīrī**. More specifically, only the latter forms signify the modification of a basic color category in a direction of increased luminosity.

Tables 4 and 5 list constructions relevant for comparing the denotative capability of the Emai ideophones. For example, table 4 indicates that constructions with the different color ideophones cannot each be applied to the same real world situation as a non-ideophonic construction involving the modifier **shā** 'enough', for example, **ō-ī-bī shā** 'it is not dark enough'. As shown, the meanings of both **wēwē** and **hūyāhūyā** are compatible with the meaning of **ī...shā** 'not...enough', but the meanings of **dūdūdū**, **kékéké**, and **rírírí** are not.

Table 4. Constructions showing the applicability of ideophones to situations denoted by the non-ideophonic modifier **ī...shā** 'not...enough'

*ō-bī dūdūdū	*ō-fūān kékéké	*ō-vbāè rírírí
ō-bī wēwē	ō-fūān wēwē	ō-vbāè wēwē
ō-bī hūyāhūyā	ō-fūān hūyāhūyā	ō-vbāè hūyāhūyā

In contrast is the behavior reflected in table 5, where we see that a construction with **dūdūdū**, **kékéké**, or **rírírí** can apply to the same situation as a non-ideophonic construction with **gbē**, for example, **ō-bī gbē**, 'it is extremely dark', or **zēmī**, as in **ō-zēmī-bī**, 'it is very dark'. A construction with **wēwē** or **hūyāhūyā** does not have this same semantic range. Thus the former set of ideophones but not the latter is compatible with the meaning suggested by **gbē** 'extremely' and **zēmī** 'very'.

Table 5. Constructions showing the applicability of ideophones to situations denoted by either of the non-ideophonic modifiers **gbē** 'extremely' or **zēmī** 'very'

ō-bī dūdūdū	ō-fūān kékéké	ō-vbāè rírírí
*ō-bī wēwē	*ō-fūān wēwē	*ō-vbāè wēwē
*ō-bī hūyāhūyā	*ō-fūān hūyāhūyā	*ō-vbāè hūyāhūyā

A slightly different range of applicability of color ideophones is found in constructions denoting a change of state. Here we compare the denotative applicability of each ideophone construction with the initial state required by expressions with **vādē** 'becoming, changing' as in **ō-bī vādē** 'it is becoming dark'. As indicated in table 6, only **wēwē** constructions can be applied to these situations.

Table 6. Applicability of ideophones to a situation assumed by a change of state expression with **vādē**

*ō-bī dūdūdū	*ō-fūān kékéké	*ō-vbāè rírírí
ō-bī wēwē	ō-fūān wēwē	ō-vbāè wēwē
*ō-bī hūyāhūyā	*ō-fūān hūyāhūyā	*ō-vbāè hūyāhūyā

Continuing our comparison with table 7, we find that only constructions with **hūyāhūyā**, **dūdūdū**, **kékéké**, and **rírírí** can be applied to situations specifying the terminal state referred to by

vādē expressions. It is therefore a situation denoted by a **wēwē** construction that is susceptible to change in a direction denoted by either **dūdūdū**, **kékéké**, **rírírí**, or **hūyāhūyā**, but never the reverse. When table 6 and table 7 are examined carefully, we discover that constructions with **dūdūdū**, **kékéké**, **rírírí** consistently contrast with **wēwē**, suggesting therefore that between the former and the latter there exists a semantic relationship of opposition.

Table 7. Constructions showing the applicability of ideophones to the change of state denoted by a **vādē** expression

ō-bī dūdūdū	ō-fūān kékéké	ō-vbāē rírírí
*ō-bī wēwē	*ō-fūān wēwē	*ō-vbāē wēwē
ō-bī hūyāhūyā	ō-fūān hūyāhūyā	ō-vbāē hūyāhūyā

We now consider for each ideophone a more specific meaning which was obtained from the naming of yarn and cloth. Pieces of cloth and yarn, varying in luminosity, hue, and saturation, were assembled and submitted to Emai speaking informants for color identification. One other speaker of American English determined for each piece of yarn or cloth the color in the Berlin and Kay (1969) scheme. The results are incorporated into table 8.

Table 8. Ideophonic constructions and their meanings

ō-bī dūdūdū 'It is bright dark'	ō-bī wēwē 'It is muted dark'	ō-bī hūyāhūyā 'It is faded dark'
ō-fūān kékéké 'It is bright white'	ō-fūān wēwē 'It is muted white'	ō-fūān hūyāhūyā 'It is faded white'
ō-vbāē rírírí 'It is bright warm'	ō-vbāē wēwē 'It is muted warm'	ō-vbāē hūyāhūyā 'It is faded warm'

As table 8 suggests, the Emai ideophones make reference to the dimensions luminosity and saturation. Saturation first of all is associated with **hūyāhūyā**, for it consistently refers to faded colors, ones which tend toward a grey quality. The remaining forms, **wēwē** as well as **dūdūdū**, **kékéké**, and **rírírí**, refer to the luminosity dimension. With the latter a greater degree of luminosity, or a brighter color, is specified, whereas with the former, a more reduced or muted level of luminosity is designated.

1.3 FORMAL PROPERTIES

An aspect of these ideophones to which our attention is now drawn, especially in light of the meanings just considered, is the non-uniform character of their phonological and morphological properties. For the following review we should bear in mind that each individual property itself is found elsewhere in Emai and hence is not peculiar to these ideophonic forms.

With respect to phonological structure there is variation along a number of dimensions. Though syllable structure is consistently of the type **CV**, the number of syllables across forms is not constant, there being either two, three, or four. Each of these syllables manifests tone, and within individual forms this tone value is consistent, either high or low. But when the entire set of ideophones is considered, it is quickly noticed that a single, consistent tone value is lacking.

Likewise, the patterning of segments comprising adjacent syllables and the relative strength values of these segments is not uniform. Some forms exhibit different vowels in adjacent syllables while others show the same vowel; some rely on the stronger tense vowels, that is, **u**, **e**, **i** while others rely on the weaker lax vowels, for example, **e**. There is a comparable situation with consonants. In adjacent syllables they are not identical, and their strength values range across the spectrum from the relatively weaker glides to the stronger liquids and plosives.

Variation also characterizes morphological structure. Though each of the ideophonic forms exhibits some type of augmented morphological structure, there is no sameness of type. Two different morphological processes are evident: reduplication and triplication.

Across these different morphological and phonological values the non-uniform quality of the entire set of Emai color ideophones is evident. A question which naturally follows is whether this allocation of formal properties is the result of processes operating in an arbitrary fashion, that is, independent of semantic considerations. In the next section we argue that the non-uniformity reviewed above has a principled basis and that a non-arbitrary form-meaning bond exists within a natural class of ideophones of this set.

2. UNDERLYING PATTERN

As a first step in presenting what appears to be a pattern underlying these ideophones we take stock of how certain characteristics correlate with one another. Recall therefore that three ideophones, **dúdúdú**, **kékéké**, and **rírírí**, exhibit a relatively restricted, hence marked, distributional character. This marked distribution, it is now clear, correlates with a morphological structure of triplication and a phonological structure highlighted by stronger consonants (plosives and liquids), stronger vowels (tense) and high tone. Furthermore, these forms refer to a single semantic dimension, increased luminosity. The uniformity of these formal and functional properties is thus evident, but it is not until the domain of comparison is enlarged that the nature of the bond between form and meaning comes into focus.

With respect to the remaining forms, **wēwē** and **hūyāhūyā**, the uniformity witnessed above is not apparent. However, only one of these forms, **wēwē**, refer to the semantic dimension luminosity.

When its properties are compared to those already reviewed, we sense a larger pattern wherein direction on the luminosity continuum, or reference to higher or lower values, is reflected in the the types of formal properties manifested by the relevant ideophones. That is, the forms which denote higher levels of luminosity manifest high tone on every syllable, a greater amount of morphological augmentation (triplication), stronger consonants (plosives and liquids), and a greater amount of identification with a single color. By contrast, the single form denoting a lower level of luminosity, **wēwē**, exhibits low tone throughout, less morphological augmentation (reduplication), a weaker consonant (glide), a weaker vowel (lax), and with an unrestricted distribution pattern, it lacks identification with a single color.

Once the luminosity dimension and its representation are taken into account, the distinctive properties of the remaining form **hūyāhūyā** become less puzzling. Though the general impression of non-uniformity earlier recorded is not due solely to this form, its properties, relative to those of the marked class, do not exhibit an opposing pattern to the same extent as do those of **wēwē**. For example, its morphological augmentation occurs on a multi-syllable base, and it employs in adjacent syllables non-identical vowels and consonants.

Perhaps then the alien character of **hūyāhūyā** is due to the fact that, while it does modify color categories, it refers to a distinct semantic dimension, saturation. Why only the properties mentioned above diverge from the pattern established by the luminosity-referring ideophones is not clear, and at this time such a line of questioning may be premature. Nonetheless, at this level of analysis one senses, however vague and indistinct, a subtle iconic relationship between form and meaning, one long claimed for ideophones, as well as other aspects of language (Sapir 1929). What we initially perceived as a random allocation of formal properties is now better viewed in focus as reflecting on the arbitrary relationship between form and meaning.

3. COMMENT ON MORPHOLOGICAL STRUCTURE

Before bringing this brief study to its conclusion, we advance a comment on the morphological structure of these ideophones. Previous analyses have noted the frequency with which reduplication and triplication are associated with ideophones (Welmers 1973, Williamson 1965). Williamson, for instance, indicates that over 50% of the ideophones in Ijo are either reduplicated or triplicated forms. However, there has been little discussion of the status of the constituents realizing those morphological processes. In this regard an aspect worthy of further investigation, at least so far as Emai is concerned, is the morphological status of the constituent which is reduplicated or triplicated. In other words, is this unit an independent morph? Does it have a morphological existence apart from reduplication or triplication?

An intriguing and consistent property of the Emai ideophones examined above is that the unit which is reduplicated or triplicated cannot occur as an independent constituent; it cannot occur independent of its respective morphological process. A somewhat comparable phenomenon has been identified in the psycholinguistic literature.

Among psycholinguists MacWhinney (1978) has extensively discussed the phenomenon of unanalyzed forms within a comprehensive theory of morphophonemic acquisition, making reference to what he labels "amalgams." An amalgam is a form which at the morphological level of a child's grammar is unanalyzed, that is, not recognized as consisting of constituent units. It is particularly applicable to first language acquisition and the learning of irregular verbs in English.

For instance, children's acquisition of the English past tense rule provides evidence of a three-stage process wherein a form like ran occurs in the initial and final stages but not in an intermediate stage, where an error form like runned typically occurs. It is the form ran at the initial stage that is of particular interest to us. Such a form, psycholinguists argue, is not yet analyzed by the child's grammar into the constituents run and past tense; that is, it is morphologically unanalyzed, due perhaps to principles of rote learning which is characteristic of early language behavior. Only at the intermediate stage, where the wrong form runned occurs, is there evidence that the child has constructed a past tense constituent.

In the instance of the Emai ideophones an obvious parallel may not exist. Still the notion that these ideophones are amalgams, unanalyzed morphological forms, is appealing, for the grammar of Emai treats each as a holistic structure rather than as a reduplicated or triplicated reflex of an otherwise existing morph. In this sense the forms are unanalyzed. To the extent that this might be true in other languages, and indeed in other semantic fields in Emai, our understanding of the peculiar morphological properties of ideophones can be refined.

4. SUMMARY

In the preceding, ideophones in the field of color were analyzed in three steps. First, a marked and unmarked class were established based on different degrees of lexical dependency. Next, the particular semantic reference of each ideophone was established by considering its denotative range relative to other non-ideophonic adverbial modifiers as well as to colored pieces of yarn and cloth. The results suggested that the different ideophones denoted saturation and polar values on the semantic dimension luminosity. Last, the various formal properties of the ideophones were scrutinized and, although initially appearing to be unpatterned, were found to exhibit contrasting patterns reflecting equally contrasting values on the semantic dimension luminosity. Also, the holistic, unanalyzed morphological nature of these ideophones was posited as a property having potential descriptive usefulness.

NOTES

- ¹An earlier version of this paper was presented at the Fourth Annual Conference of the Linguistic Association of Nigeria held at the University of Benin, July 1983.
- ²Hansford, Bendor-Samuel and Stanford (1976) classify Emai in the Emai-Iuleha-Ora dialect cluster.
- ³The data on which this study is based were collected with the able assistance of G. Egeruan and F. Egbohware, to whom I am particularly indebted.
- ⁴The notion segment strength is discussed extensively in Foley (1977) and Hooper (1976).

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