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REVISITING THE COLOUR DIMENSIONS IN COLOUR SEMANTICS: A COMPARATIVE STUDY OF THE RED COLOUR CATEGORY IN ENGLISH AND HAUSA

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Abstract
This paper examines the meaning of the colour term *red* in English and Hausa from a semantic perspective. Previous studies have analysed English and non-English colour terms as hue terms which has resulted in some aspects of the meaning of colour terms to be overlooked. Thus the dimensions used to define color terminology, hue, saturation, brightness and tone are critically studied and they are found to be suitable for English colour terminology but not for Hausa colour terms. Using examples from English and Hausa it was found thatEnglish *red* is primarily a hue term, and though traditionally classified as an adjective, *red* in English could be used as a noun and verb. In Hausa, *Jaa* (red) is also classified as an adjective. However, while it can be used as a hue term, it also can be used as a term which indicates ripeness and cooked quality of certain foods. This is another aspect of the meaning of Hausa *jaa* that is not accounted for by the usual terminology used for describing colour in English colour studies. The paper concludes that further research needs to be carried out in order to develop a framework that could account for the meaning of colours in Hausa, and possibly other African languages.

Introduction

Colour semantics is a rich field of study that has been steadily gaining academic interest. As a subfield in linguistic semantics, it seeks to investigate how colour and the various colour terminologies construct meaning in different languages. Colour, though perceptual, is encoded in language using linguistic resources. The ability of the eye to distinguish different wavelengths has led to human beings to categorise these visual percepts and name them. These names are called colour terms. Biggam (2014) explains that colour semantics investigates how languages communicate the types of visual impressions related to hue, tone, brightness and saturation. For some scholars, colour has three dimensions which are reflected in how different societies label the wavelengths of light. For example, Bornstein (2006) states that colours vary in three dimensions, namely,

hue, brightness and saturation. This is similar to Palmer (1996: 71) who defines hue as that which "can be measured in wavelengths and is seen in the spectrum or the rainbow". He does not define luminosity or brightness, but he defines saturation as "the degree of freedom from white"(1996: 71). The most easily 'accessible' concept regarding colour is hue. Indeed, Bornstein defines hue as "an impressive quality of visible light" (2006: 41). To the layman, colour is synonymous to *hue*. Hue terms include red, blue, green, and yellow. However, terminologies related to colour descriptions are many in colour semantics, such that different scholars use different nomenclatures to refer to the same concept. This is why Biggam (2007) proposes an unambiguous specialised terminology for use in colour semantics, and identifies some features that may be involved in the linguistic expression of colour. These are hue, saturation, tone, brightness, transparency. Hue is defined as "that quality by which we distinguish one *color family from another,* as red from yellow, green from blue or purple. It is specifically and technically that distinctive quality of coloring in an object or on a surface" (Munsell 1961:15 [italics original]).Hue corresponds to what is usually linked with colour, and thus alteration of 'a colour' in respect to hue is usually obtained with the help of another colour term, often a derived form, e.g. reddish purple or yellow green, or grue (green + blue) (Biggam 2007). Saturation is afeature of colour that enables language users to distinguish a strong colour from a weak one. It is the degree of departure of a colour sensation from that of grey, i.e. the intensity of a distinctive hue (Munsell 1961: 16). Thus, words to express saturation of a colour range from Vivid (a fully saturated hue) through Mid and then Dull which indicate increasing amounts of grey. Tone comprises two concepts namely achromatic tone which consists of the colour words *white-pale grey- mid grey- dark grey- black,* and chromatic tone which the words *pale* or *dark* are used to express. A chromatic tone is said to be "a hue with graduated admixtures of white or black" (Biggam 2007: 183). Brightness encompasses the most sub-categories with words that express this concept. These are *dazzling, shining* and *glowing* which are used to express light-emission; *shiny, lustrous* and *matt*which are used to express reflectivity*; well lit* and *poorly lit* which are used to express surface illumination; *brilliant, dim* and *unlit* that express space illumination; and finally *transparent* and *translucent* to express the notion of transparency.

Colour studies on the English colour terms has led to thousands of papers and books being written from different approaches such as psychology, cognitive linguistics, textual analysis and anthropology. In anthropology we find several works that have led to the interest in the linguistic aspect of colour semantics. Seminal works such as those by Conklin (1955), Berlin and Kay (1969), Brown and Lenneberg (1954)and Lucy (1992) all point to the fact that the study of colour categorisation, naming, symbolism, association and metonymy provides answers (and more questions) about how people categorise the world and how they engage in meaningful interaction. Indeed, the study of colour has gone beyond just explaining whether colour terms are universal or relative. Biggam (2014: 9)explains that semantic studies "attempt to investigate the detailed web of

meaning, and thereby reduce omissions and misunderstandings" related to the ambiguous nature of colour terms, for example, idiomatically green as a colour term in English is used to talk about envy or environmental concerns. Colour studies have shown how colour has certain associations and value to groups of people. Such examinations have led to comparative studies between and among different languages with a view to revealing how they conceptualise colour and what colour terms mean to them. The present study is also a comparative study which investigates the meaning of the terms*red*in English and *jaa* in Hausa.

English is a one of the languages with a globally high number of speakers. It belongs to the Indo-European family and is related to languages such as German and French. Due to its diverse speakers around the world, English has acquired several varieties in various countries. These varieties are called New Englishes. Hausa, according to Encyclopedia.com (2018), is the largest ethnic group in West Africa, and the name "Hausa" refers to both the language and to its native speakers, of whom "there are about 25 million". The Hausa people are foundin "the savanna of northern Nigeria, the adjacent area of Niger, and, as a result of extensive migration, in enclaves in various African cities as far south as the Atlantic coast" (Encyclopedia.com). The study of Hausa colour terms has been approached from the perspectives of universalism, symbolism, and relativism of the colour names in Hausa. Colour studies in Hausa usually study a set of colour terms and thus the unique function of the category *jaa* is missed by several scholars. This is the gap that this study fills.Moreover, in all these studies, *jaa* is approached as a hue term and thus it is analysed as such accordingly. This paper argues that in comparison with English red which is a hue term, *jaa* is much more than a term that denotes the perceptual field of visual wavelength.

General Background

In colour semantics, perhaps the most influential study in contemporary times is that by Berlin and Kay (1969). Working against a rich background of early colour studies that showed how different cultures use colour and name them, and which resulted in different languages with varying number of colour words, Berlin and Kay (1969) demonstrate thatthere is a universal pattern in how societies /languages name the colour spectrum. They propose that there are eleven Basic Colour terms which follow an evolutionary sequence. In other words, colour words in all languages can be studied and the number of colour words that they have indicate their place in terms of cultural and technological development.The Basic Colour Terms have six presumed stages of development as shown in the diagram below. The guiding idea behind the diagram is that if a language has a word for a category to the right of an arrow, then it has all the terms to the left of the arrow. However, there is no particular ordering for the members of Stages III and VI.

Berlin & Kay's (1969) Implicational Hierarchy:

Stage I	Stage II	Stage III	Stage IV	Stage V	Stage VI
black < white	red <	yellow or green <	blue<	brown < orange purple	grey pink

If a language has six colours, then the sixth one is something that encompasses blue. If a language has more than six, the subsequent ones it will have are also ones found in English colour system such as grey and purple. Therefore, there are colour regions that are in some ways more primary, as such a language would not have terms for three shades of blue without a distinction between red and yellow. Berlin & Kay (1969: 104) summarise these results as follows:

> First, there exist universally for humans eleven basic perceptual color categories, which serve as the psychophysical referents of the eleven or fewer basic color terms in any language. Second, in the history of a given language, encoding of perceptual categories into basic color terms follows a fixed partial order. […] Third, the overall temporal order is properly considered an evolutionary one; color lexicons with few terms tend to occur in association with relatively simple cultures and simple technologies, while color lexicons with many terms tend to occur in association with complex cultures and complex technologies.

Furthermore, the colour terms in the implicational hierarchy form eight basic colour term systems as follows: Two colour system: WHITE, BLACK; Three colour system: WHITE, BLACK, RED; Four colour system: WHITE, BLACK, RED, GREEN; Four colour system: WHITE, BLACK, RED, YELLOW: Five colour system: WHITE, BLACK, RED, GREEN, YELLOW; Six colour system: WHITE, BLACK, RED, GREEN, YELLOW, BLUE; Seven colour system: WHITE, BLACK, RED, GREEN, YELLOW, BLUE, BROWN; Eight, nine, ten or eleven colour system: WHITE, BLACK, RED, GREEN, YELLOW, BLUE, BROWN, PURPLE, +/PINK, +/ORANGE, +/ GREY. English from the above explanation, belongs to the eleven basic colour sysytem, while Hausa belongs to the five Basic colour system. The Hausa Basic colour terms are *fari, baki, jaa, shudi,* and*koree* which roughly correspond to English white, black, red, blue and green.

New findings and scholarly criticisms have led to Berlin &Kay's original claims to undergo substantial development, but the basic assumptions of their initial study are still being investigated. The basics of the theory have been substantiated outside anthropological methods, and this further strengthens it (Kay & Maffi,1999; Steinvall 2002). The problematic of this paper is grounded upon the inability of the original and modified Berlin &Kay's frameworks to account

for differences in some colour systems around the world, and their exclusion of the potential differences in colour semantics that naturally arise in languages other than English.

One contemporary trend in colour studies is comparing the colour systems of different languages or varieties. The Danish linguist, Hjemslev (1953: 33), compares how the field of colour was in the past divided up by English and literary Welsh. In English, the terms *blue* and parts of *green* and *grey* were covered by the term *glas* in Welsh, while parts of the field of English *green* and *grey + brown* were covered by the Welsh terms *gwyrdd* and *llwydd* respectively. But Palmer (1996) argues that this one–dimensional field does not account for the way colour terms are used in language. He exemplifies this by saying we do not say one colour e.g. red is more than another colour, say blue. Consequently, he asserts that looking as the physical characteristics of colour, colour can be accounted for using three variables namely, hue, lightness and saturation. Other comparative studies include Krimer-Gaborovic (2014) which examines the blue colour category in English and Serbian, and note that there are no similarities in terms of colour associations of blue in these languages.

Similarly, Paramei, Griber and Mylonas (2017) conducted an online experiment which compared coordinates of centroids for 12 basic Colour Terms and 11 English Basic Colour Terms. The study found that there were differences in how native Russian speakers divided up the colour space of BLUE, and to a lesser extent BROWN and RED. Furthermore, Russian showed a linguistic refinement of the PURPLE area, compared to English. On their part, Mylona, McDonald and Griffin (2017) used online data to compare the speed in colour naming among American and British English speakers.They found that American English speakers named colour 10% faster than the British respondents. However, the British English speakers displayed a richer vocabulary of colour terms.

Earlier approaches to studying colour include the field theory. The field theory progressed from the work of German linguists, notably Trier, and American anthropologists. Lehrer uses the field theory to explain how it is that "words can come to have new meanings in certain contexts, and… we can predict what semantic and syntactic features a totally new word will have when added to a lexical field" (1974: 110). It is helpful to distinguish between the more or less stable or conventionalised meanings of words and those which are 'extensions' of these words. Lehrer (1974:7) explains the field theory as a one which "treats a related set of words that belong to a domain", and where a word acquires its meaning through its relationship of contrasts with other words in the domain. One such domain is that of colour which she shows can belong to a 'general' domain and a more restricted domain. For example, the general domain of colour would include terms such as *red, green, blue,* and the restricted terms would include terms such as *rust, sand, turquoise*, etc. But then there are even terms for particular domains such as hair colour which features terms that are not exactly restricted because of the limited number of hair colours. Besides, there is not a clear cut one-to-one correspondence between the general colour terms and the restricted hair–set colour terms. For instance, "many shades of 'yellow' hair

would also [in addition to those of red hair] fall into a part of the brown range" (Lehrer 1974: 7). Similarly, Lehrer says if there were to be a new colour for a hair dye, another colour term, usually from the 'general domain' would be used. In the field theory, not all words are of equal status, and people can differentiate between basic and peripheral words. She uses Berlin & Kay's (1969) criteria for distinguishing basic colour terms, most of which can be applied to other domains. In contrast to basic words, periphery words will be lower in the taxonomy, likely to be morphologically complex, limited in their application and distribution, may be recent loan words and are largely unknown to many speakers of the language (Lehrer 1974: 11).

In the late 80s and early 90s, another different model of colour categorisation namely, Vantage theory emerged, largely as a result of material collected by Robert MacLaury in the Mesoamerican Color Survey. MacLaury was the first researcher to classify empirically 'exotic' categories which did not conform to the initial Berlin & Kay sequence. In a number of articles (e.g. 1987, 1992), MacLaury reported patterns previously unrecorded, most strikingly a yellow-with-green category. However, despite being distinctly different, Vantage theory still follows the basic claims of Berlin & Kay. MacLaury (1997: 419-429) sees Basic Colour Terms as an elemental colour realm which can be studied separately, and claims that colour classification is constrained by the physiology of colour perception. This claims and others have been tackled by contemporary researchers on the subject in voluminous anthologies such *Progress in colour studies* (Vol. 1 and 2), *New Directions in Colour Studies* and *Anthropology of Color: Interdisciplinary Multilevel Modeling.* These books all point to the increasingly interdisciplinary and multidisciplinary nature of colour studies.

Following the debate about defining colour names using Fundamental Neural Responses (FNR), Goddard (1998: 124) firmly asserts that physiology cannot 'define' meaning. He pointsout that from the perspective of semantic theory, colour meanings cannot strictly speaking be defined in terms of neural responses or other physiological facts. This is because meanings are communicable and neural responses are not: "A neural response (or a personal perception) is not a sign, but a colour word is a sign. And a sign can never be reduced to any combination of non-signs. Furthermore, scientific facts about neurophysiology are completely unknown to ordinary speakers and so cannot serve to model the semantic competence of ordinary speakers" (Goddard 1998: 124). This does not mean that biological facts are immaterial, for they function as a vital constraint on meaning –formation, which makes us inclined to want to characterise the form of things in certain ways rather than others. For Goddard (1998: 124), colour terms are "the conceptual instruments to meet this need, but this doesn't mean that they can be reduced to physiological facts". Palmer also points out that there is not always a close link between the physical features of colour and the colour system of a language (1996: 71). This he illustrates using Conklin's (1955) study on Hanunoo, a language of the Philippines, that has four basic colour words which largely correspond to English black, white, red and green. Yet they differ in terms of i) light and darkness, thus distinguishing

between white including all light tints and black including dark tints such as violet, blue, dark green; ii) the difference between green and red is based upon the classification of all living plants as *green*, and iii) the deep indelible colours, black and red are differentiated from white and green.Now, it is frequently argued that the understandable vagueness of colour meanings makes it hard to characterise them in 'classical' terms. Kay & McDaniel (1978), for instance, have criticised Jerrold Katz's componential analysis, ridiculing the idea that colour meanings could ever be stated in terms of discrete binary components. Similarly, George Lakoff's (1987) influential book *Women, Fire and Dangerous Things*, and John Taylor's (1995) *Linguistic Categorization* also make this criticism.

Cliff Goddard and Anna Wierzbicka offer similar views regarding the study of colour. Goddard (1998) uses an approachcalled the 'prototypical cognitive scenario', which he found useful in analysing emotion terms. The basic idea is that we can "communicate about personal feelings by implicitly referring to some idealised situation that prototypically evokes a feeling. It is, in effect, an appeal to shared experience and reliance on the addressee's imagination" (Goddard 1998: 125). For colour meanings, the prototypes he uses are visual and environmental, and he explains semantic concepts using 'reductive paraphrase explications'. That is, things which "everybody sees and that they can therefore serve as common reference points" (Goddard 1998: 125). However, he observes that we cannot make statements like *Blue* = like the colour of the sky; *Green*= like the colour of grass (or plants) (Goddard 1998: 125).This is because considering the complex notion of 'colour', they are inadequate.

But Goddard (1998: 125) argues that a conceptual analysis of colours can be made by pinpointing some prototypes and then likening the way things look to attributes of these prototypes. This idea of 'likening' as a basic semantic component of colour terms is supported by the fact that this is how non-basic colour terms often work in English and in other languages. For instance, terms like *lilac* and *golden* clearly work in this way; *orange* and *pink* which derive from the name of a fruit and certain flower respectively, once worked in this way. Goddard (1998) tries to map out the main prototypes in colour meanings. He observes that some small systems of basic colour terms are inclined towards grouping white and yellow together, as opposed to blue, green and black, which illustrates the significance of the light versus dark distinction. The apparent environmental prototypes must be night and day. After all, he claims, there can hardly be an environmental contrast of more importance to seeing than the difference between day and night. Moreover, the universality of the cycle of day and night cannot be disputed. In later works, Goddard arguments have support those of his colleague, Anna Wierzbicka, who in many publications pointed out that the whole concept of what we mean by the term 'colour' is anglocentric and is not universal at all. Rather, Wierzbicka proposes the investigation of terms of 'seeing' and not 'colour' because languages categorise visual phenomenon and experiences differently (Wierzbicka 2006).

With regard to colour studies on Hausa, there are some notable works. One such study is by Zarruk (1978) who challenges the claims of Berlin and Kay

regarding the universality of colour naming. Zarruk offeres a comprehensive list of what he calls colour terms, which do not conform to the claims of Berlin and Kay. Similarly, Bature (2004) examines the conformity or non-conformity of Hausa colour terms to the implicational hierarchy of Berlin & Kay (1969). He asserts that even though Hausa has at least twenty-five monolexemic colour terms (2004:174), it has only five basic colour terms, namely, b*akii* (black), *farii* (white), *jaa* (red), *kooree* (green) and *shuudii* (blue) based on the criteria for Basic Colour Terms.

Yet not all researchers on Hausa colour terms agree to the latter claim: Abubakar (2001: 13), for instance, claims that Hausa colour system has seven basic colours, namely, black, white, red green, yellow, blue and purple. But this view is flawed because yellow and purple terms in Hausa language are derived from some entity in the world, and,hence, would be more appropriately labelled *non-basic terms*. The same argument holds for Dogondaji (2014) who does a dialectal study of colour terms in Hausa. He focusses on the Sakkwatanci dialect and argues that it has eight basic colour terms, and formulates a different set of criteria for categorising Basic Colour Terms. Bature (2004: 174) also finds that in addition to the criteria given by Berlin & Kay (1969), in Hausa another linguistic criterion applies, in that in Hausa only Basic Colour Terms have ideophones of intensity associated with them (2004: 175). Furthermore, he notes that these Basic Colour Terms are more productive morphologically, syntactically and semantically. This productivity, however, reduces as we go down the implicational hierarchy. In other words, black and white are more productive than red, which is more productive than green or blue (Bature 2004: 177). This is similar to the conclusions reached by Steinvall (2002: 219) with regard to English colour terms. Based on Bature's observation, Hausa has a basic colour term for blue but it does not have one for yellow. This, he argues, is contrary to the predictions of Berlin & Kay's model. But this reasoning is invalid because Berlin & Kay's model allows for both green or yellow/ green and yellow colour group before blue.In the same vein, Zarruk (1978: 54) challenges the claims of Berlin and Kay (1978), pointing out that they have tried to "stratify languages and cultures according to their own value systems. ... the value system used as criteria are chosen arbitrarily, and, not only belong to the selectors' own value systems but deny the existence of the diverse values characteristic of languages and cultures around the world".These studies have all pointed to the inadequacies of the Berlin and Kay original model. However, all their arguments rest upon the unchallenged status of *jaa* as a hue term. As the present paper show in the following sections, comparing *jaa* with *red* reveals that *jaa* is not completely a *hue* term.

Analysis of Red and *Jaa*

Semantico- syntactic analysis

Red as a colour term belongs to the adjectival class. In both English and Hausa, red and *jaa* usually accompanies a noun, for example,

1. The red dress is beautiful.

The same thought could be expressed in Hausa as:

2. *Jar rigarta na da kyau*.

However, Hausa allows in addition, the colour category to appear after the noun for example,

3.*Riga ja mai ratsin dutwatsu* (Trans: dress red studded with stones).

Jaa could also occur as an identifying marker- for example

4.Ado Jaa (Ado is a name of a person and he is identified with the word,*jaa*, to indicate his skin colour.

This is similar to 5. *man jaa* (literal translation: red oil which refers to palm oil). In these instances,*jaa* is used to denote the physical, visual property of an entity. In other words, red appears to be used as a hue term.

Most societies do not have the technology for creating an unlimited variety of pigments, dyes, and paints (Goddard 1998: 111). It is most probable that everywhere in the world people make some cultural use of coloured agents, though it may be rather limited. For instance, the Aboriginal peoples of the Australian desert did not use clothing and thus there was no likelihood of the technology of dyeing arising; on the other hand, they inscribed using red and yellow ochre, white pipe clay, and charcoal, their bodies with designs for ceremonies (Goddard 1998: 112). In this kind of cultures, nearly everything one sees has its inherent, natural look. The several variations in colour come from the stages of growth of plants, birds and animals, and from the weather and the state of the light (such as day versus night, and overcast versus sunny) (Goddard 1998: 112). In Hausa, *Jaa*also has several other sub-types which are restricted to certain domains. For example, Zarruk (1978) lists the following types of red in Hausa: Dyes and pigments used in traditional Hausa occupations are also a sub-type of *jaa*. They include, *karan dafi* – purple red dye from guinea corn sheaths; and*koya* – Indian red dye (type of red earth).

The idea that cultural needs also determine the colours in a language (Palmer 1996), can be observed in the names of animals in the Hausa language. Animals are distinguished on the basis of hue and in some cases an additional physical feature. Although in many studies of colour, the usual trend has been to restrict the investigation to the dimensions (hue, brightness, saturation, and tone), critics have ponted out that there is more to colour than these dimensions (see Biggam 2011 and Palmer 1996). Biggam (2014: 2) argues that a society may be concerned with "the general appearance of an entity, involving a mixture of visible features in which hue cannot be separated from one or more aspects, such as shininess, roughness, darkness, wetness and more in varying combinations". In Hausa, Zarruk (1978) lists the following red related terms for animals:*heji* – red horse; *asawaki/asuwa* – red donkey; *gitsawa* –red goat with irregular patches; *jalko* – red goat; *kyalla* – dark red goat; *bare* – red and white goat; *jatau* – red dog; *kurkur* – red hen with raised feathers. These subtypes of *jaa* function primarily as nouns as in:

6. *An kama wani* ***jatau*** *jiya da daddare* (trans: a red dog was caught last night). Red in English has a similar range of subtypes that are restricted to certain domains, for example, red hair is called *copper/carrot/ auburn hair*.

In Hausa, colour terms can be reduplicated to show a "softening of hue, lustre or intensity originally named by the single lexical item e.g. "*jaja-jaja* – faintly red" (Zarruk 1978: 60). In English softer hues are expressed through words such as 'pale', but this is also restricted because English has several colour terms that could be used to denote softer shades of colour. Thus, we can say 'pale pink' or 'baby pink' but it would be unusual to say 'pale red' because pale red would just be called pink. This belongs to the dimension of tone and the English language names colour along this dimension. Tonein Hausa can be expressed using 'words of comparison' as follows:

i. *Daurayen* …. – a mixture of
ii. ….. *mai duhu* – dark so and so Example: *jaa mai duhu* (trans: dark red)
iii. …. *Maihaske* – light so and so
iv. *Ratsi-ratsin* … - a tinge of
v. *Ruwan* … - a colour of
vi. *Shigen* … - like, or shade of (Zarruk, 1978: 61)

In English, we find 'x-coloured' constructions such as,

7. She wore a chocolate coloured dress,which explicitly form an analogy to the colour of some entity. However, it is not common in standard varieties to use this construction in relation to the basic colour red. Thus, an expression such as 'red coloured dress' would sound awkward.

Hausa also employs ideophones to convey a sense of brilliance or intensity, for example, *ja jir, ja wur, ja zur* which all refer to intensely red colour; and*jau i* which refers to dazzlingly red (especially light) (Zaruk 1978).In English, ideophones are not used at all. Intensity and brilliance are usually expressed by terms such as *sparkling*, *dazzling* and *electric*. Furthermore, some secondary colour terms express these colour related nuances example, *crimson, scarlet, magenta, maroon* and*burgundy*. Goddard (1998: 113) lists words like *shiny, glossy*, *dull*, and *dingy*, which though not colour-words strictly speaking, do describe something about how things look and he calls them *brightness-related terms*. In various languages, such words are very significant, especially in places where people often have to help each other pick things out from wide visual field. Goddard notes that in many languages, most of the words which describe how things look are either context-specific or brightness-related.

The grammatical function that a colour term has could influence the meaning of that colour term. Although basically descriptive, colour terms could denote a property, or a state or even a process. In English, *red* as Wierzbicka (2006: 9) points out, is essentially a name of "a particular colour, and that the meaning of the word *colour* is included in that of the word *red*..." English colour termscould occur as adjectives, nouns and even verbs. Anishchanka (2007),for instance, finds that colour words can be nominalized and behave morphologically, semantically, and syntacticallylike nouns. This for Anishchankareveals that colour concepts are conceived of as a "thing-like manipulable entity" (2007: 379 – 393). Colour words can behave like typical nouns, appearing with determiners or modifiers. They also can occur at the head position of a noun phrase, for example,8. The walls were a deep shade of red.

Furthermore, when colour words function as nouns, they morphologically behave like nouns, by taking the plural *–s* (e.g. reds) and *–ness* (e.g. redness), which denote the noun form. In some cases, colour names are morphologically unchanged but they function as nouns especially when they are used as *names*which make them to behave like proper nouns, for example,9. Red is an attractive colour. According to Ibrahim (2016: 13-14), three reasons why colour words in English are substantivised:

> i. they are substantivised when they are conceptualised as entities in themselves and are thus treated like individuals with names. … ii. they are substantivised when colour words are used to stand for some hitherto identified object in a given discourse, or some object readily understood from the discourse… In this function, colour terms are, through the process of metonymy, primarily referential in function, which George Lakoff & Mark Johnson argue, is a defining characteristic of metonymy. In this simplistic view then, metonymy essentially involves the use of one entity to refer to another related entity. Here, the colour of an entity is used as a substitute for the entity itself.iii. colour terms are substantivised when the focus is primarily on the colour and not the entity to which it is applied, or indeed any entity at all …

Colour terms in English can also function as verbs (Anishchanka 2007; Ibrahim 2016): as verbs, the colour term expresses the process of coloration, that which or who does the colouring and/orthe colorant itself. In English, colour words that behave as verbs may take no affixes (zero affixation), or take suffixes such as *–en* (e.g. redd*en*), *-ing* (e.g. *reddening*), *-ened* (e.g. *reddened*), and *-ening* (e.g. *reddening*)Examples are,10. Larai's cheeks began *to redden*with shame, and 11. With the coming of autumn, the dry winds are reddening the leaves. In contrast, the Hausa language does not allow colour terms to be used as verbs. They are used as adjectives and nouns as given in examples 2, 3, 4 and 5. The implication of this is that colour terms in Hausa are used to express only a *state* and not a *process.*

Colour association, symbolism and idioms

Colour association and symbolism form part of the semantics of colour terms and studies concerning these have been done in both English and Hausa.Ryan (1976) uses Hausa literature to study the concept of color and color symbolism. She divides colours into two groups namely, primary and secondary, with the former comprising terms that are non-derivative and non-restrictive in usage, while the latter group is made up of terms that are derivative and restrictive. She finds that the colors in the primary group (white, black and red) have the greatest frequency of occurrence in literature, and that there is high consistency in the symbolic values assigned to these colors. Generally, white denotes positive and socially attractive attributes, while black evokes negative connotations. However, she finds red is ambiguous; in some contexts it can be closely related to black while in others it "can be associated with spiritual agency

and power" (1976: 141). In English, red is associated with the most intense emotions and states ranging from positive ones e.g. *love*, *passion*, *sex*, *beauty*, *ardour* to negative ones and unpleasant ones e.g. *aggression*, *danger*, *pain*, *betrayal*, and *seduction* (see Dimitrieva). In varieties of English in the Western world, colours have a long tradition of symbolising something, and the following online sources http://en.wikipedia.org/wiki/ Color_ symbolism _and_psychology (2007), Karlsen(2008), and Decker (Undated), list them as follows:

Red: Passion, strength, energy, fire, love, sex, excitement, speed, heat, arrogance, ambition, leadership, masculinity, power, danger, gaudiness, blood, war, anger, revolution, radicalism, socialism, communism, aggression, summer, autumn, stop, Mars (planet), respect, Aries (star sign), December, martyrs, the Holy Spirit, conservatism (U.S. politics), pleasure, desire, vitality, will to win, love of sports, and the survival instinct. The "warm" colours red, orange and yellow are considered to be stimulating colours. Red is also the colour of the devil in modern Western culture. Furthermore, Allan (2008) notes that there are there are connotations of English colour terms when used in non-literal ways. Using phrases with colour terms he finds that red has both negative and positive connotations because of its close links with blood. When we compare the associations of red in the two languages, we find that strong emotions are expressed in English with red for example, passion, strength, energy, fire, love, excitement, heat, but this is not the case in Hausa. However, in both English and Hausa red is associated with strength and energy.

These colour associations manifest in idioms. Idioms are "a type of grammatically complex expression not all of whose grammatical constituents are semantic constituents" (Cruse, 2004: 73). In Hausa there are expressions with 'red' term in them such as red monkey (mischief), red neck (influential person), red boil (painful underarm boil), red ear (White man), red hero (brave man),red eyes (meanness or indicates rage), red leg (thief), and red work (hard task). Zarruk (1978) and Dogondaji (2014)assert thatred appears in idioms to do with strength, bravery, and vehemence of actions.

Red also appears in English idioms. Some are listed in The Oxford Advanced Dictionary (9th ed.) as follows: red in tooth and claw (involving opposition that is violent and without pity); waving a red flag/rag in front of a bull (to make someone very angry); red (left-wing political opinions); be in the red (to owe money to your bank); red eye (night flight in a plane on which you cannot get enough sleep); red herring (an unimportant fact that takes people's attention from the important ones); red blooded (full of strength and energy) and red cent (a small amount of money). From the examples given, both English and Hausa have idioms that use red to express strength and vigour. Red in both languages has both negative and positive connotations, but the former appear to be more predominant.

Jaa:Hue term or brightness term?

This section investigates usages with *jaa* that do not appear to denote the perceptual and visual field of colour.Common usages of *jaa* indicate that *jaa* is

much more than a hue term. In fact, it signals a subtle multi-dimensionality in its meaning that facilitates its use in varying contexts. In other worsds, *Jaa* is used with specific meanings that arise from the context. For example, in 12. *Lemon tsamin ya yi jaa,*a literal translation to English would be "the lime has become red". But this is not the actual sense that would be conveyed by a competent Hausa speaker. Here, the idea being conveyed is that the lime has changed its colour from green to yellow. In other words, the concept of yellowing to denote ripeness is expressed here.Similarly, in13. *Ganyen ya yi jaa,* a rough translation would be that "the leaf has become red'. But the sense being conveyed here is that the leaf has changed colour from bright green to yellow. Here, it is not that the leaf has become 'ripe' but rather it has lost its fresh green colour for some reason. From these examples, it would appear that *jaa* does not ony refer to the hue of a certain part of the spectrum or neuro-physiological responses of the human eye to light, but also to other aspects. Indeed, some critics argue against the reduction of meaning to focus and to neuro-physiological responses because they do not give any information about colour semantics.For instance, Lyons (1999: 52) points out, "a distinction has to be drawn between the central or focal denotation and its total denotation." However, following Maffi and Kay revised model of Berlin and Kay evolutionary sequence of colour terms separation, it would appear that Hausa has not yet divided up the colour space of RED. Kay & Maffi (1999) in the World Colour Survey propose that languages evolve from having only two colour terms, and then slowly they acquire more terms with the passage of time. However, they do so without losing any colour terms once they acquire them. Kay and Maffi (1999) offer a categorisation which show how languages start with two colour terms, and then increasingly partition the parts of the colour space named by each of these terms. This process continues until each of the basic colours is given a name by a different colour term. They found that 83% of the languages in the World Colour Survey belong somewhere along the trajectory shown below. The trajectory shows the early stage languages with only two colour terms at the top wherea single term names light colours in addition to yellow and red, and the other term names dark colours together with blue and green. Kay & Maffi's (1999) Evolutionary Trajectory is given below:

white-red-yellow + black-green-blue
white + red-yellow + black-green-blue
white + red-yellow + black + green-blue
white + red + yellow + black + green-blue
white + red + yellow + black + green + blue

However, despite the arguments of Kay and Maffi (1999), Hausa *does* have terms for yellow (namely *rawaya, dorawa* or *ruwan kwai).* This indicates that with regard to the concept of yellowing, *jaa* is used because the concept is part of the *meaning* of *jaa*.

In addition, *jaa* could also be used to encompass warm colours. For instance,14. *Ba na shan jaan lemo,* which could be literally be translated as 'I don't drink red drinks'. The competent Hausa speaker would probably use the expression,*jaan lemo*, to refer to drinks that are not prototypically red but rather

orange, such that popular sodas such as Fanta are picked out by this expression. Similarly, in Hausa a sentence such as 15.*Hakoransa sun yi jaa saboda cin goro*(Trans: His teeth are stained red because of eating kolanuts) is like how certain ideas are expressedusing red in English.For instance, in English, red hair is not prototypically red. Indeed, Palmer (1996) notes that collocations where colour terms appear do not necessarily denote the actual prototype, for example, white in*white man* or *white wine* or *white coffee* in reality refer to a pale shade of pink, yellow and brown respectively. He points out that white in the examples given is used not as a hue term but as a term referring to a light variant of the colour of entities involved in the description. In the case of examples 14 and 15, it would appear that since there is not a basic term for orange in Hausa, then the colour category nearest to orange is used to describe it. In this case, the nearest colour category is red and thus red is used to denote orange and similar warm shades of colour.

Another use of *jaa* with a different meaning from that of denoting a hue term is found in the sentence:16. *Wainar ta yi jaa*,to mean 'the food item (*waina*) is brown' which shows that it is well fried. However, *jaa* does not denote the prototypical red or to its closely related hues but that of brown. It would then appear that in Hausa, brown could also be in certain contexts encompassed in the category red. This further challenges the suitability of the dimensions of hue, saturation, tone and brightness to account for the semantics of Hausa colour terms. Indeed, the concept of colour could inherently be intertwined with other concepts in a language. To use Wierzbicka's words "the structure of the experiential world differs, to some extent, from language to language. There are many experiential worlds, and, if we try to explore them through shared human concepts rather than through English alone, we can get closer to the experiential worlds inhabited by the speakers of languages other than English" (2006: 4).For instance, Conklin (1955) states that succulence and desiccation can be intrinsic in the meaning of a colour word.This explains why Lucy (1992) contends that using English terminology as metalanguage leads researchers to making inferences, and thus see patterns where there are none. Conclusively, the red category in English can be studied along the dimensions of colour such as hue, brightness, saturation and tone, but asPalmer (1996) cautions, the assumption that thinking of colour in terms of hue may not be so in all societies.Thus this paper argues that *jaa* apart from denoting hue, is used to denote *ripeness and or loss of green colour* and *cooked quality of food*.

Conclusion

This paper has examined the English term red and its Hausa 'counterpart' term, *jaa*. Both red and *jaa* are used as adjectives and nouns. For the English term, red, it can also function as a verb, especially to denote the process of colouration. This aspect of colour as a verb should be incorporated in models of colour studies. Hausa *jaa* can occur with several ideophones to show the intensity and brilliance of the colour. English does not have ideophones but has several saturation and brightnesss modifiers such as dark, bright and light.We argue that

though colour termshave been traditionally been investigated as primarily hue terms, the Hausa term *jaa* shows some form of colour related polysemy that is intertwined with other domains. Thus, *jaa* is used to denote the concept of ripeness or yellowing with regard to plants, and cooked quality with regard to food. In conclusion, further research needs to be carried out in order to develop a framework of colour that would account for the meaning of colours in Hausa, and possibly other African languages.

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