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THE VALUE OF LEAFY VEGETABLES: AN EXPLORATION OF AFRICAN FOLKLORE

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ABSTRACT

Indigenous Leafy Vegetables foods have an exceptional place in African cuisine. It is commonly argued that vegetable consumption reflects cultural backgrounds and their value transcends a biological one, as food, to symbolism enhancing the functioning of society and promoting social order. This study set to determine species use, folkloric dimensions and taste preferences in a rural East African setting. A bio-cultural approach reinforced by ethno-botanical tools conducted over a three-year period and recourse to a corpus of Luo ethnic food plant literature and gathering of folklore elements from a conversational context was used to study socio-cultural elements of vegetables foods of people in Migori and Suba districts of Kenya.

Seventy-four respondents, 56 female and 18 males, of mean age 43years and ranging between 16 and 84 years participated in focus group discussions and research interviews. Herbarium specimens of 34 leafy edible plant species in seventeen plant families are deposited at the University of Nairobi and the Catholic University of Eastern Africa herbaria. This study documents 17 sayings (folkloristic products) of different genre: mantras, traditional beliefs, customs, practices, folk stories/ tales, songs, jokes and lexical phrases.

Their sociolinguistic analysis reveals they address issues appropriate to Luo ritual, social status, nutrition, taste preferences, cooking habits and conflict resolution. Though Luo folklore indicates aversion for bitter vegetables, the body of folkloric wisdom sustains vegetable dish consumption. The preference and craving for bitter tasting herbs by elder women was because of an understanding of both food and medicinal values. This paper concludes that vegetable consumption reflects cultural backgrounds and experiences. Folklore defines how Africans perceive, define, and value indigenous Leafy Vegetables in their own terms and presents a stable platform for cultural analysis of oral food culture. Indigenous Leafy Vegetables are symbolic "sources of illumination" that orient African people persistently with the system of meaning in their culture.

KEY WORDS: Indigenous Leafy Vegetables, culture, folklore

INTRODUCTION

Culture is an organization of things, the meaning given by people to objects, places and activities [1]. Cultural diversity is as necessary to human beings as biodiversity is to life [2]. Every human society is culturally situated and at the core of every culture are issues of food resource availability. Indigenous Leafy Vegetables (ILVs) foods have an exceptional place in African cuisine. They differ to some degree across African cultures and regions on the basis of the amount of value and meaning being communicated in the symbol of food and the social class of the person(s) being served. It is these latter factors that account for differences in the styles of food preparation, recipes and tastes across African cultures. Some vegetable taste preferences seem to be entrenched and are unusually tenacious within specific cultural groupings.

Dietary change taking place among both the rich and poor peoples as well as in urban and rural populations of the developing world has been documented [3, 4]. During the last millennium many African cuisines experienced dynamic changes induced by socioeconomic, colonial and political impacts. Many cultures conformed to or adopted dominant modern cuisines. In recent times, increased global contact has made exotic foods readily available to Africans. In Kenya *Brassica oleracea* var. *acephala* otherwise known as *"Sukuma wiki"* has now become the main type of Leafy Vegetables in both rural and urban areas yet its value and symbolic meaning is lacking in indigenous folklore. Dietary changes among some African peoples have led to the neglect of the symbolic meaning of food and consequently broken the link between culture and cuisine. Little has been said about cultural lore underpinnings of food. Further, efforts to sustain traditions have been little investigated.

Most scientific studies have focused widely on edible plant species diversity; little attention has been given to the social cultural value of edible plants. The need for symbolic "sources of illumination" to orient people persistently with the system of meaning in their culture has been recognized [5]. In general, the symbolic meaning of food, including ILVs serves the purpose of enhancing the functioning of society and promoting social cohesion and order. As far as ILVs are concerned these meanings have scarcely been studied. This paper presents a botanical and cultural exploration of indigenous vegetable use. It identifies folkloric dimensions and taste preferences of ILV dishes consumed in rural southwestern Kenya.

STUDY SITE

The study was carried out in the southwestern Nyanza province of the Republic of Kenya. The area lies within the Lake Victoria basin. The study focuses on the Luo people, who are an agropastoral group of the Nilotic cluster of societies [6]. The Luo speak *'DhoLuo'* language, which has a Nilo-Saharan and eastern Sudanic accent and affiliation.

The selection of the Luo as the focus of this study was motivated by their habitat which is uniquely fed by the rich ecosystem of the lake basin and labour-migrant

economy. In addition the Luo have an up-to-date demonstrated knowledge and use of local flora.

METHODOLOGY

Two districts namely Migori and Suba in Nyanza province were sub-sampled for the study. Standard focus group discussions with participants of age forty-five years on average were conducted in Uriri, Karungu, Nyatike and Rongo divisions of Migori district and in Mbita division of Suba district between 1999 and 2003. Observation of selected homesteads and surrounding ecosystems was conducted with the assistance of a key local informant. A database of 34 edible plant specimens deposited at the University of Nairobi and the Catholic University of Eastern Africa herbaria was also utilized. The study also utilized available corpus of literature on ethno-botany and recipes for over 70 indigenous Leafy Vegetables (ILVs) used by the Luo [7-10]. Data analysis is based on the bio-cultural approach reinforced by ethno-botanical and nutritional tools of analysis.

RESULTS

The findings presented in this paper are based on responses from a total of 74 participants which divide into 56 females and 18 males. In general, the Luo cultivate vegetables in home gardens called *"ogundu"*. They also gather wild edible plants from the diverse ecosystems of the Lake Victoria Basin for their nutritional requirements. A strict societal gender separation in food preparation, processing and marketing prevails within the Luo community. The rural women are directly responsible for conserving and preserving ILVs by virtue of their reproductive and feeding roles in the family. Among the Luo of Nyanza food has both biological and social value. The biological value hinges on the nutritional importance of food while the social value embodies a patterning of social status based on age and gender. The biological value of food is automatically understood without conscious reference to science. From a biological perspective, food is viewed as a body building and body tissue repairing agent.

The social meaning and the message to be communicated to the social environment and to persons being served is reflected in who gathers, purchases, prepares and serves the food as well as in the type of food in question. The social ranking of the food is reflected by which age and sex is involved in its gathering, purchase, preparation, serving and consumption. The elaborateness of the technique of food preparation is determined by the occasion and the social status of the persons to be served. The significance of the social activity determines the type, kind, and amount of food to be procured for preparation for the event. In general, the procurement of beef is the domain of men mainly because they are herdsmen.

The women gather Leafy Vegetabless mainly because they are versed with the corpus of edible flora in the immediate environment. In most of the African communities, visitors are highly regarded. Food for guests is procured and prepared with a lot of caution. Persons of high social status are usually served highly valued food. They are

served by women of high social ranking in the community. Traditional vegetables are generously used to supplement food for guests which is usually prepared using fermentation techniques. Energetic elderly women are in most cases consulted whenever customary dishes are being prepared. The collection of vegetables for common household consumption is more often than not left to young girls. The complexity of vegetable preparation and the number of complementary food items served depend on whether a meal is to be eaten as a snack or as the main meal of the day. The taste and amount of food invariably reflects the worthiness, reliability, and honor of both the host and the guest. Generally food must be enough for everyone. Food shortage at social gatherings means neglect or outright insult to guests and consequent diminutive perception of the host.

The food and the social environment of consumption promote and sustain social statuses, respect, cohesion and responsibility. During mealtime, persons being served take positions at table that say something about their social ranking. The Luo proverb *"chiem gi wadu"* literally meaning eat with your neighbour reinforces a communal sense of responsibility and togetherness. Food resources are largely considered communal and individualistic forms of behaviour are generally shunned. Stingy persons are commonly described by disparaging expressions like *"ng'at ma iye kwar"* or *"ng'at ma iye lit"* which literally describe the stingy person as the one with a red stomach and the one with an aching stomach, respectively. They both describe a bad-hearted person.

LEAFY VEGETABLES TASTES AND SOCIAL STRUCTURING

The fact that many structurally unrelated compounds (peptides and amino acids, sulfimides, ureas, thioureas, terpenoids, phenols, and polyphenols) give rise to a uniform bitter taste suggests the existence of multiple bitter taste receptors and genes in a person [12]. Taste buds pick up only four sensations (sweet, sour, salty, and bitter), but these are combined with the sense of smell to give various foods their unique tastes. Among the Luo the terms *"kech"* and *"wach"* respectively depict degrees of sweet and bitter taste conceptions. However, five main terms of taste are recognized: *"mili mili"* (astringent), *"wach"* (sour), *"kech"* (bitter/ acidic), *"mit"* (sweet also meaning delicious), and *"both"* (bland).

A Leafy Vegetables with a bitter taste was commonly associated with medicine while one with a sour taste was associated with food. Generally lower social classes are said to have "vulgar" taste while the upper classes are thought to have a refined taste. The taste of the vegetable provides a clue of the social links of the person eating it. Leafy Vegetables tastes tend to provide distinguishing marks for rural and urban influences and or attachments. Persons eating vegetables with milder tastes are commonly associated with urban links, while those eating ILVs with a bitter taste tend to have stronger rural attachments. The prejudice against ILVs among urban dwellers and the youth is attributed to the bitterness and hairiness of the ILVs as well as to the tedious cooking methods involved. The urban Luo have in recent times been rediscovering their indigenous foods and have tended to pay more attention to their unique varieties and cooking styles.

Generally the youth prefer vegetables with milder taste while adults tolerate sour and bitter tasting Leafy Vegetableless. The Luo women who understand both the food and medicinal value of ILVs crave for the bitter tasting ILVs commonly referred to as *"alode makech"* or 'bitter herbs'. Elderly women pride themselves on bitter herbs - a preference that has made them the leading conservators and producers of bitter cultigens including *Crotalaria* spp., *Solanum nigrum* and *Gynandropsis gynandra* which are highly ranked in the category of ILVs with bitter taste and in terms of preference. Bitter tasting cultigens tend to possess biologically active phytochemicals. They have acrid or astringent taste and have health benefits [13]. Preference for a sour or bitter taste develops in the course of early childhood therapeutic and nutritional induction [8, 9, 14-17].

Preference is acquired through both socialization and imitation. In the past, socialization took place in informal structural institutions called *"siwindhe"* for girls and *"duol"* for boys. The subject of discussion at the *"duol"* and *"siwindhe"* included general matters on plants, animals or people. The boys were educated on their role in the procurement of the best foods either as hunters or herders. Girls were informed on matters of nutrition and how to prepare the best dishes. However, the customary educational system among the Luo has almost vanished.

In general, mild flavours are enjoyed by all the segments of the population with variations in the level of enjoyment determined by degree of sourness or vegetable texture. A general observation from folklore indicates that bitter vegetables are loathed, as illustrated in the common saying *"kech ka manyasi"*, meaning bitter as herbal medicine. Almost all the women of age 39-84 had preference for bitter tasting vegetables. In general, women have more taste buds than men [18]. A greater number of taste buds appear to give them greater sensitivity to sweetness, sourness, saltiness, and bitterness. Fear of bitter tasting vegetables tends to wane with age [19-20]. However, any dislike for ILVs is moderated by hunger and the Luo have sayings to communicate this message, for example *"ng'ama oyieng' jaro chiemo - to ng'ama odenyo chamo kata a lot makech manadi (osuga kata mitoo)"* meaning the starving person will even eat bitter *"osuga"* or *"mitoo"*. *"Ngima ema ilaro, dek kiyudo to hadh ahadha"* contests pickiness on the relish.

VISUAL AND OLFACTORY CONSIDERATIONS IN LEAFY VEGETABLES PREPARATION

The colour of food was not often used in food label and preference ranking. Dark green indigenous vegetables and dark green, brown-green to light green cooked vegetable is preferred and deemed tasty and healthy. Generally green soups had positive health connotations and were perceived as good weaning preparations. The health value of brown green vegetable seems minimal due to vitamin losses associated with overcooking [21-23].

The type of smell emitted by the food is an indicator of the manner of how it has been prepared. In general bland foods are acceptable but dishes with strong aromatic and

pungent odours (especially of essential oils) are considered repulsive and are shunned. The dearth of aromatic plants, notably the Anthemideae tribe of the sunflower family (one of the largest with ILVs in this study), the mint family (Lamiaceae) and Verbenaceae reinforces this point.

TEXTURAL CONSIDERATIONS IN THE PROCUREMENT AND PREPARATION OF LEAFY VEGETABLES

Vegetable dish texture determines its mode of preparation, cooking and suitability for particular occasions. Two vegetable dish textures are identifiable among the Luo. These are slimy "*rudruok*" and coarse non-slimy *"maok rudre"* textures. The textural classifications are based on chewing sound (crunchiness or *"radruok"*). About 37% of the plants consumed by the Luo are slimy and have a 'sharp - bitter taste'. Slimy vegetables are preferred over non-slimy ones because they are believed to ease ingestion of accompanying foods and general digestion.

It is also appropriate for elderly people whose dietary needs are implied in the saying *"ted ne rahuok a lot aruda"* directly translated as simply “cook for the one without teeth slimy foods”. Slimy foods demand less effort to masticate. Sex differences in the preference of Leafy Vegetables dish texture exist among the Luo. Males prefer coarse vegetables to slimy vegetables partly because the slimy vegetables have a likeness to male seminal fluid. However, this behaviour also tends to reinforce male identity and the social structure. On the other hand females largely tend not to discriminate vegetable dish textures. Further, several concoctions of ILV species are normally prepared for an array of textural and taste sensations. In general, *Corchurus* spp. and *Sesamum angustifolium* are preferred dish thickeners however, other seasonal substitutes like, *Portulaca* spp., *Basella alba*, *Asystasia schimperi* and *Commelina* spp. are also utilised.

RITUALLY MARKED VEGETABLES

Consumption of food among the Luo is a ritual activity. It is patterned, repetitive and unchanging. Food is a medium of expression in that among the Luo, people converse and exchange views as they eat. Similar observations were made about the Midzichenda [24] whose dishes are used to punctuate activity and ritual cycles as well as to underscore honour. Some ILVs are assigned to special social times and contexts. In southwestern Nyanza culinary skill competence is associated with the social status of wives and their relationship with their husbands. It creates affective bonds within the family. This is underscored in the Luo saying *"yadh hera en chiemo* “translated as the “medicine of love is food”. It implies responsibility on both sides of the married couple, however, the man must be able to provide and sustain the family so as to have "love" in the family. The wife must also know how to prepare the right food for the family. The Luo developed sayings to sustain good cooking habits and reduce social conflicts within the family. For example, *"alot ok bul"* meaning you cannot roast vegetables; *"alotni otwon gi chumbi mojow piny, kwoyo radoree"*,*"Nyodo okonyo omboga"* literally translated as “suckering reproduction saves the parentals”.

Highly valued vegetables are prepared during ceremonial occasions. Expensive ingredients such as ghee and milk are added during the preparation of this category of vegetables. Some of the highly valued ILVs are nightshade *S. nigrum* and spider plant *G. gynandra*. The *S. nigrum* has a higher ritual value when consumed with millet cake than with maize meal.

The intricate and arduous manner in which *S. nigrum* and *G. gynandra* are prepared makes them very significant in the Luo food system, family roles, family tradition and ethnic identity. In general, cultural constructs influence the blending of vegetable foods as shown in Table 1, however, a functionalist analytical approach can shade light on therapeutic and nutritional value of the blends.

FOLKLORIC ASPECTS

Leafy Vegetables foods and or dishes are usually complementary but they are also dished singly without meat depending on family finances. They are commonly given as gifts for convalescence to visiting sick relatives and friends as atonement during funerals. The ILVs are either grown or gathered in the wild. Some women grow them for commercial purposes while others maintain home gardens wherein they grow ILVs for household use. The emergence of money economy has tended to give financial value to certain activities and commodities which in turn receive high ranking and social value.

High value was accorded to beef because it has financial costs and it is the common dish of upper social class households. However, the long Luo tradition of pastoralism appears to reinforce the belief that plant diets are nutritionally inferior to meat ones. The procurement of ILVs tends to be associated with less financial value and with households of low social-economic status. In general, households with low economic status rarely serve beef on their table and apparently, the decreasing consumption of Indigenous Leafy Vegetabless may be interpreted as a psychological rejection of the low social class tag. However, this development appears to have been anticipated and checks including communal wisdom on the health and social importance of Leafy Vegetabless was developed and incorporated into the informal socialization curriculum with the objective of encouraging people, especially the Luo to consume Leafy Vegetabless.

The importance of Leafy Vegetabless is explained and sustained in folklore, sayings, proverbs, tales and lexical phrases. A commonly used phrase stressing the importance of ILVs is *"alot ma ocha ema tieko kuon"* - translated literally as "the despised potherb is what relishes the corn cake"; this saying promotes the value of Leafy Vegetabless relative to other dishes. It is translated as: "a thing that is despised might become respected" [25]. Less common sayings that deride the social class system by reflecting its disadvantages when it comes to food are *"Ruoth ne ogombo obwanda"* and *"Ruoth rapemo nokecho obwanda wamlare"*. Both sayings simply translate as: "the nobleman yearned for green herbs".

They are drawn from a folktale on a tired and hungry nobleman who after an unsuccessful hunting trip longed for something to eat, even a poor dish of herbs, purselane, served by a peasant woman. According to the tale, the peasant woman who received the hunters in her home served them in accordance with the norms of hospitality, however, the nobleman was not served the dish of herbs because the peasant woman felt that his status did not deserve eating Leafy Vegetabless and she had no food suitable for him. The account underpins the significance of hospitality in society and the indictment of social class when it comes to food. However, it also reflects the social stigma associated with purselane and Leafy Vegetabless in general whereby they are viewed as markers of social class.

The perjoration of vegetables is illustrated in other proverbs such as *"irach ka a lot"* literally meaning "you are disgusting as potherb". *"Wang'i olil ka alot e agulu"* meaning you are unsightly/ poor looking as potherb", *"Dek ojonyo ng'at ma otede"* alluding to the bitterness of Leafy Vegetabless especially the *G. gynandra* and to the view that what is familiar and cooked regularly is not delighting. This saying is commonly used on a marital relationship which is sometimes defined by a low level of affection between the spouses. One of the soothing sayings for such type of a situation is *"mo moleny loso alot marach mondo obed mamit"* meaning "ghee improves vegetable taste". The Luo wisdom on food promotes a balanced diet. This is alluded in the saying *"alot kone ring'o ni kori ema ichwalo e mach kora to mach otho"*. These sayings capture an imaginary discussion where the vegetable fireplace complains of inattention/ neglect because all attention is directed to the meat fireplace.

Negative attitudes towards some ILVs have also come from an interpretation of Hebrew and Christian teachings by syncretic African religions. For example adherents of the Legio Maria sect are forbidden from eating vegetables that have been gathered from *"gunda"*, abandoned homesteads and from *"liete"*, gravesites because they are likely to be possessed. Cowpea leaves *Vigna unguiculata*, are among the Leafy Vegetabless derided by the Legio Maria sect because of the belief that it resembles the vine that the dishonored Adam and Eve used to cover themselves with when exiting paradise and also because the creeping stem of this vegetable is specifically used for tying the umbilical cord of a newborn child. However, proverbs such as, *"atipa kaitedo seyo kuon dala mar jolejo donjo e tek"* means *"atipa"* (*Asystasia schimperi*) is so delicious with cornmeal, being a devout Legio Christian is a miserable fix, have been developed to defy the Legio Maria beliefs about certain sources of Leafy Vegetabless. Regardless of the hint of obscenity constructed by the Legio Maria adherents, Cowpea leaves remain popular among other members of the Luo community.

CONCLUSION

Cultural factors forcefully determine semiotic workings that underlie food consumption and are more imposing largely determining what is palatable and what is not. The consumption of Indigenous Leafy Plants among the Luo of Nyanza has social, mental, economic, gender, and moral considerations. The ILVs define

ceremonies in a special ways, they appear to bring distinctions in the social structure, they promote social order and enhance societal synergy. By virtue of their significance, ILVs enhance human capabilities and widen human nutrition, cultural rituals, environmental adoption and socialising choices. The barriers to eating ILVs include taste, social cues, religious and cultural symbolism of certain foods. In general the Luo have a body of wisdom that sustains the consumption of ILVs despite the increasing tendency to like exotic foods.

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Table 1. Cultural blending of vegetable dishes and the emic explanation

Vegetable combination	Emic explanation
V. unguiculata and *Corchurus* spp	Improves texture (roughness) and texture
S. nigrum and *V. unguiculata*	Improves texture (roughness)
Amaranthus and *G. gynandra*	Improves taste (bitterness)
Sesamum spp. and *V. unguiculata*	Improves texture (roughness)
Crotalaria spp. and *Corchurus* spp.	Improves flavour (bitterness) and texture

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