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Editor's note

The present volume of the Nordic Journal of African Studies contains articles in English. As the subscribers and readers might remember, the last number of 1997 was all in French language, dealing mainly with Mali. It is likely that there will be another issue in French, but we try to publish it as an additional issue with no extra costs to regular subscribers. This means that there will be two regular issues annually with articles written mainly in English, and one special issue in French.

I wish to express special thanks to reviewers and to John Stotesbury, who once again has corrected the language of some of the articles.

Helsinki, 22.6. 1998

Arvi Hurskainen
Editor

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RELIEVING BUT NOT PREVENTING - PUBLIC FAMINE RELIEF IN SOME BRITISH COLONIES IN AFRICA UP TO 1930

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INTRODUCTION

Famines occur because they are not prevented. In today post colonial world, governments in Africa and Asia have been accused of neglecting the victims of famines and of failing to reallocate public resources in the form of relief. Much worse, they have been accused of not having on their agenda a famine prevention policy. Much of this critique also goes for the colonial period. The aim of this study is to investigate public famine relief in some British African colonies - the Sudan, Tanganyika, Southern Rhodesia and Northern Nigeria - during the early decades of colonial rule. Special emphasis will be put on the example of the Indian Famine Codes, which were meant to provide for the British government in India a system of identifying an emerging crisis and organising government actions during a crisis. The Indian Famine Codes were to have a direct as well as indirect impact on later public famine relief regulations in colonial Africa. However, it is interesting to note that contrary to India, the various colonial governments in Africa were to follow independent roads from each other and no grand policy was drawn up by the Colonial Office in London or even considered to be done.

According to Devereux, there are three reasons why a government might fail to respond appropriately and in good time to a threatening famine. They have inadequate information on the problem, they lack the capacity to intervene, or they feel no sense of responsibility for the victims and do not care (Devereux 1993: 137-139). Certainly, this is both the case in the post colonial as well as in the pre-colonial and the colonial world. The Indian Famine Codes was one of the first British grand plans to overcome these problems. Emphasis was put on improving the flow of information and the responsibility of local administrators to immediately inform the government about an approaching crisis. Equally, the capacity of transport and communications were to be developed and enough

[1] I would like to thank Michael Cowen for his comment and Margot Stout Whiting for correcting my English.

resources were to be made available in times of a food shortage. Last but not least, the Indian Famine Commission stated in its report - somewhat theoretically - that it was the 'duty of the state' to respond. In the case of British colonial government in early twentieth century Africa, the capacities and the duties of the colonial state were much weaker and more unclear.

1. Famine relief is not famine prevention

Megan Vaughan concluded in her study of the 1949 famine in Malawi that the history of famine relief procedures in both the colonial and post-colonial periods is one of unpredictability and unreliability, and it seems highly unlikely that whole agricultural populations will have put their faith in such systems (Vaughan 1987: 16). One could argue that this is the case in many places in colonial and post-colonial Africa, as the recent famines of the 1970s and 1980s have shown. On the other hand, one can argue that the tricky question is not famine relief but famine prevention. A comparison between the establishment of the Indian Famine Codes in the 1880s and famine relief policy in early colonial Africa reveals that what was lacking in most cases was the shift from relief measures to a long-term preventive policy. Whereas famine relief was and still is short-term and erratic, a famine prevention policy has a strong linkage to the development of agriculture and infrastructure; in fact, famine prevention is a part of rural as well as urban development.

Famine relief is not famine prevention. Famine relief is a short-term and often very expensive undertaking. It can only be established when a crisis has been identified and the authorities have decided to react. Famine prevention, as defined by Drèze, is essentially concerned with the protection of entitlements and avoidance of epidemics which cause the greatest loss of human life during a famine. It is both a short-term as well as a long-term policy because an effective famine prevention has to have the goal of eliminating the vulnerability of people affected through promotional policies, the reduction of insecurity through economic diversification and the creation of secure earning arrangements. Therefore, there exists a clear link between famine prevention and development prospects (Drèze 1988b: 3-7).

Famine relief is not equivalent with food aid either. Whereas food aid can be both short-term and long-term, food aid as famine relief is only one aspect of it. Food aid is, by using Srinivasan's definition, commodity-tied aid that makes goods such as food grains, edible oils and fats, and dairy products available to recipients at confessional terms. Food aid, except as emergency relief during famines or other abnormal circumstances, takes two forms: project aid and untied programme aid. Food aid has evolved from being a means for disposing of food surpluses in donor countries in the 1950s to serving as a policy tool for promoting

economic development in the recipient countries in the 1980s (Srinivasan 1991: 373; see also Cuny 1981; Singer 1989; Benson and Clay 1990).

The discussion about the benefits and pitfalls of food aid can provide some interesting insights on a discussion of famine relief, especially its changing role after 1880 and its occurrence in colonial Africa. Dearden and Ackroyd distinguish between emergency, project and non-project food aid (Ackroyd and Dearden 1989: 218). Emergency food aid is distributed free to destitute or near destitute people facing a temporary food shortfall as a result of a natural or man-made disaster. Clearly, this was the common form of public relief in times of a famine already in pre-colonial Indian and African society, as remembered in vivid descriptions of rulers, who distributed grain free and opened public granaries to the people in need. However, as Drèze noted for India, the evidence is too scanty to judge how such measures worked and functioned in reality (Drèze 1988a: 12-13). The same critical remarks can be raised for pre-colonial African societies (Weiss 1997).

Project food aid, according to Dearden and Ackroyd, is either targeted on particular food consumers or it is used to promote investment in physical or human capital. This can be done either by free or subsidised distribution of food or by food-for-work programmes. In the case of famine relief, there is a market shift between pre-colonial famine relief measures in Africa and pre-1880 measures in India and later developments. Both in the case of India as well as colonial Africa, famine relief was to follow the idea of project food aid more than merely emergency food aid. The key ideas concerning famine relief both in India as well as British Africa was food-for-work, only the disabled were to be fed free. At the same time, food-for-work programmes had a clear investment perspective: irrigation channels, railways and roads were built at low public expense. However, as our discussion will reveal, both in India as well as in British Africa, the key question for the government was not what to do but whether or not it should intervene. The result was a mixture of all kinds of positions, ranging from absolute non-interference to heavy regulations of the grain market and grain trade, fixed prices and government distribution of free grain. The only thing these various famine relief measures had in common was that they were produced by outsiders, never by the victims themselves. Therefore, it is not surprising that most famine relief measures in the end were only partially effective, as the recipients never had the power to determine what it was and how it was used (De Waal 1989: 32).

It is not surprising that the road from famine relief to famine prevention was and is a long one. Famine relief cannot lead to famine prevention as long as the relief measures are not followed up, analysed and lead to principles for administrative actions, combined with a government policy to boost agricultural output and safety networks, such as public/government granaries, and countermeasures against entitlement failures, such as the promotion of a functioning labour market and price stability. In fact, it can be argued that the

relief measures in British colonial Africa were to become relatively effective but that the preventive measures were lacking or were only beginning to be established during the colonial era. It is not enough to have some government famine relief principles if the administrative practice is not equal to the task, as both the Indian and African cases clearly reveal. Government intervention and action plays a decisive role in turning the focus from relief to prevention and thus establishing in the long run a society that can both feed all of its members and provide the opportunity for its members to do so. However, this is a political question, not an economic, technical or ecological one. History has, on the other hand, shown that in most cases the political decision has been based on economic not social or humanitarian grounds.

1.1. Famine relief and government action: the British case

Contrary to food aid, the history of public famine relief goes much further back in history. The case of the 'Book of Orders' issued by the Privy Council in England in 1587 is one of the earliest written codes. It instructed, among others, local magistrates to determine the grain inventories of all farmers, factors, maltsters, and bakers; to force holders of inventories to supply their grain to artisans and labourers at relatively low prices and to prevent all export abroad and limit transportation at home (Fogel 1992: 262). Although the effects of these measures are still debated, there is evidence that the system was working fairly well until the Civil War of the 1640's. By 1631 the sale of grain to the poor below market prices had become widespread, this being a clear view of the 'paternalistic' policy of the state of intervention in the grain market. However, due to the victory of Parliament, the regulatory machine was dismantled, and by the eighteenth century the English government no longer interfered in the grain market in times of shortages. As a result of this, food riots and increased migration in times of food shortages were common. To counteract, the English government enforced vagrancy, settlement and poor laws, but with little success (Thompson 1971). In fact, during the nineteenth century the debate about whether the government should or should not intervene in the grain market emerged again (Fogel 1992: 264-266). However, due to the ideas of laissez-faire and economists rigorously criticising any idea of government intervention in the (grain) market, the whole debate about famine relief both in the United Kingdom as well as in its colonies and dependencies became problematic. Should the government interfere or not and on which terms?

The debate in Britain - as well as in India - in the nineteenth century on the question of the role of the state during famines was overshadowed by the influence of the writings of the classical economists - Adam Smith and John Stuart Mill - and Thomas Malthus' ideas on the checks on the population. The grand idea of

free trade was that even in the face of famine, the state would not interfere in the free market process by price control, financial encouragement to import, or prohibition of the export, of foodstuffs; and the correct price level would always be reached through the forces of supply and demand (Ambirajan 1978: 60).

At least in the Indian case, which has been thoroughly presented by Ambirajan, the question of government interference and even famine relief operations was during the nineteenth century reflected through the lenses of the classic economic theory of free trade. Ambirajan noted a clear shift from the pre-British policy in India of market interference to an orthodox following of the idea of non-interference during the 1860s. In fact, early British famine policy in India from the 1770s up to the famine of 1802-04 in Bombay followed the pre-Smithian pattern of market interference, grain importation and regulation of the grain prices (Ambirajan 1978: 63-65).

However, as Ambirajan has clearly pointed out, nineteenth century British administrators in India seemed to have been heavily influenced by Adam Smith's ideas. This resulted by 1806-07 in a change in the famine policy: the government should not interfere in the market. Although during various later famines some Residents on a local level tried to pursue an interventionist policy, this was either criticised or even withdrawn by the government. Before the takeover by the British Crown, the only way to mitigate the effects of a severe famine was through non-interference in the trade, encouragement of local private charity and employment provision for the poor in public works - but for monetary wages. It was sincerely believed at that time that government action could do nothing to mitigate the sufferings of the public, but even more bluntly, that the policy of non-interference in fact would bring more good to the public than government interference (Ambirajan 1978: 72-73).

Only after the severe Orissa famine in 1865-66 did government famine policy in India start to change and the idea of absolute non-intervention was questioned. Indian society was found not to be like what the classical economists had in mind. As the Viceroy, Lord Lytton noted in 1879:

> Ordinary people as a whole do not buy food. They sell it; and, in the rural districts there is no natural self-acting agency for the sale of food on any large scale such as exists in the towns. The people suddenly cease to be producers, and simultaneously become purchasers of food: and there is no preestablished agency for meeting their demand on a sufficient scale (Lytton to Caird, 1 March 1879, quoted in Ambirajan 1978: 83).

By that time there had already occurred a change in British famine policy back towards greater intervention, although there was no uniformity before the Indian Famine Codes of the 1880s.

The Indian Famine Codes produced in the 1880s was the first serious attempt in modern times to systematise the prediction of famine and to set down steps to

ameliorate its impact before its onset. However, the conclusion of the Famine Commission that drew up the Famine Codes was that free trade was not to be interfered with. Neither should the government purchase grain or forbid grain exports during famines (Ambirajan 1978: 98; Drèze 1988a: 25). One outcome was that government intervention in the grain trade as well as fixing grain prices was found undesirable. Payment in grain to relief workers was allowed only when food could not be obtained in the local market (Brennan 1984: 103). The backbone of the famine relief strategy was the organisation of massive public works, the aim of this strategy was to provide employment at subsistence wages and at a reasonable distance. Gratuitous relief in the form of doles or kitchens was only for those unable to work (Drèze 1988a: 24).

Later famine regulations in Africa which relied on the guidance of the Indian Famine Codes, such as the 1920 regulation concerning famine relief in the Nilotic Sudan or the 1924 Foodstuffs Ordinance in Tanganyika, did change this policy (Bryceson 1980; Shepherd 1988). However, in other British colonies in Africa, among others Nigeria and Southern Rhodesia (Zimbabwe), government guidelines concerning famine relief procedures were never drawn up (Watts 1983; Iliffe 1990), but at least at some stages and during some crises they followed a mixture of Indian famine relief policy and government intervention.

1.2. The way from relief to prevention: the case of the Indian Famine Codes

What were the motives of the British Administration in India in the nineteenth century in their concern with averting famines? This question is as difficult to solve for India as it is for the efforts of the colonial administrations in early twentieth century Africa. The Indian Famine Commission Report of 1880 remarked in their review of earlier (eighteenth and early nineteenth century) famine relief efforts by the East India Company (EIC) that such were at best half-hearted and lacking in effectiveness. Although there was in the dispatches of the EIC a "breathing tone of sincere compassion", the company was consistently much more engaged with its fiscal results than with relief schemes (Famine Commission Report, 1880, p. 31, quoted in Drèze 1988a). In fact, prior to the late nineteenth century, there was no explicit policy for famine prevention in British India, nor in the princely states. Certainly, food was distributed, taxes were exempted and relief works were undertaken, but this took place in an ad hoc manner, not according to a grand plan. It seems as if the British administration after taking over from the EIC in India in the beginning neither had had any general obligation to give relief or to supply sufficient means of affording it. This situation, however, was to change due to several 'shocks' that shattered the British

administration: the Indian mutiny of 1857 and a series of frequent and severe famines between 1861 and 1878 on the Indian subcontinent (Hubbard 1988: 121).

Brennan has listed two other possible sources for the change of British famine policy in India. One was the New Poor Law of 1834, another one was the experience with the Irish famine of 1846-49. Poor relief was a hotly debated issue in Britain during the nineteenth century. Its critics, who were found mainly among the classical economics, stated that the poor laws tended to encourage paupers to depend upon state charity (Ambirajan 1978: 59). The key concern was about the possible 'demoralising' effect of reliance upon relief. Thus charity and relief were to be the last possibility for the poor; they should be rather deterrent than supportive. Also the question was on who was eligible for poor relief and who not, therefore a series of 'tests' should be used to identify those who deserved relief and those who did not. As Brennan has pointed out, the policy in India indeed was inspired by the British debate but did not follow it. The main difference was that whereas the government in Britain was committed to the maintenance of the eligible poor, it was not the responsibility of the British government in India. Here, private charitable institutions and practices of the local population were seen as the key instruments. The obligation of the government was limited to interfering only when whole populations were endangered by widespread famine (Brennan 1984: 93).

As for the British experience with the Irish famine of 1846-49, Brennan notes that in fact it was not directly drawn upon as an example in the Indian correspondence on famine policy making in the 1870s and 1880s. Although there are some interesting similarities of government action in Ireland and India, this question still needs a thorough investigation (Brennan 1984: 93). However, as De Waal has noted, there is a possible link between government action in Ireland and India. British relief policy was aimed only at the prevention of deaths. Therefore only those on the point of death through starvation had the right to receive relief. The same argument was used when drawing up the Famine Codes in India: the object was to prevent starvation deaths, not to prevent famines as such (De Waal 1989: 18-19).

The Famine Commission in its 1880 report stated that it was "the duty of the state" to engage in famine relief. However, as Drèze has underlined, the motives are very unclear. According to him, several plausible explanations can be put on the table: The desire to preserve political or fiscal stability, a feeling of obligation to the people arising from the more obviously deleterious aspects of colonial expansion, the concern with the administration's image in the eyes of the English public as well as public opinion in England expecting the administration to act in times of disasters, and at least sometimes genuine humanitarian concern (Drèze 1988a: 14).

As has been noted, British famine policy came to be based on a mixture of non-interference and food-for-work programmes. However, the discussion around

the Famine Codes also had an aspect of preventive measures, especially in building up the capacity of moving grain from regions of surplus to regions of deficit. This was to be achieved by the growth of the railway system rather than government interference with private trade. Another preventive aspect was a heavy input in the development of irrigation systems. A third one was the erection of an early warning system which included the commitment of the administrative personal to collect information on crops, harvest forecasts and the development of market prices. Although Drèze found in his review of the benefits and drawbacks of the improvement of communications that this most probably made a major contribution to the alleviation of distress during famines, he pointed out that this was not the main argument of the policy. In fact, famines were to be prevented by generating purchasing power in affected areas and letting private trade supply the food, i.e. in case of a famine, food-for-work programmes were salary based (Drèze 1988a: 15-21; see also Brennan 1984: 105).

One has to underline the fact that the British government in India was, at the same time it was concerned with the prevention of famines, equally if not more concerned with its financial economy. Famine relief should be given to the maximum of receivers at minimum costs. "The problem to be solved is how to avoid the risk of indiscriminate and demoralising profusion on the one hand, and of insufficient and niggardly assistance on the other - how to relieve all who really need relief, and to waste as little public money as possible in the process (Famine Commission Report 1880, quoted in Drèze 1988a: 32)". The solution was that a series of checks or tests would prevent undeserving people from flocking to public works programmes: work was hard and poorly paid and the programmes would be under European supervision (Brennan 1984: 104-105; Drèze 1988a: 28-31).

The effectiveness of the Indian Famine Code of 1880 and its later revisions has been under debate for a long period. The relief system failed during some crises, the most well-known being the Bengal Famine of 1943. On the other hand, the Indian Famine Codes established a principle of government responsibility to prevent loss of life and preserve livestock, and laid down administrative systems for the purpose. As we shall see, its influence was not limited to the Indian subcontinent, but opened the ground for government famine policies in British Colonial Africa.

2. Famine relief in British colonial Africa up to 1930: selected cases

The Indian Famine Codes set an example for how government should and could react when there were clear signs of an approaching famine. Early warning systems, public famine relief and preventive measures, such as government investment in the development of agricultural and the infrastructure were part of

it. Ad hoc responses to individual famines were hoped to be history. However, as we have seen above, the main outcome of the Famine Codes was that they gave the government an excuse not to intervene with the trade of grain. In the end, there was no uniform Indian Famine Code to be drawn up, but each province in India produced its own famine code. Most of the famine codes were reversed after later famines in the late nineteenth and during the twentieth century, but the basis of them all was the one produced in the 1880s.

At the turn of the century, it seems clear that there were two positions prevalent in the British Empire regarding a government famine policy. Foremost was the idea of non-intervention, with the example provided by the Indian Famine Codes. The second position was that of the Fabian thinkers, the Radical Liberals and their thoughts on the role of government. Frightened by the relative British decline at the turn of the twentieth century, they called for policies of 'national efficiency', thus criticising aspects of free trade and the laissez-faire system. The colonial state was supposed to take an active part. Indeed, one can identify an early policy of state development, most explicitly articulated by the Colonial Secretary Joseph Chamberlain. As Colonial Secretary in the 1890s, he had advocated the allocation of funds for the improvement of roads, bridges, public buildings, railway and irrigation works throughout the Empire (Cowen and Shenton 1996: 270-293). In the case of a would-be government famine policy this meant active intervention in the grain trade. Or perhaps not, because due to the idea of trusteeship, tradition and progress should be combined - thus giving an excuse for non-intervention as well as selected intervention. Anyway, the decision to intervene was to be made by the trustees, because they knew what was best for the 'natives' (Cain and Hopkins 1994: 208). The outcome of such a concept was that African societies were to be protected from the 'evils' of the modern world whenever it was possible; the aim was not to create a landless proletariat which would flock into the urban centres and demand wage labour (Shenton 1986; Phillips 1989). In fact, therefore, not much was done in terms of colonial development before the 1930s and the Colonial Development Act of 1929 - but the Depression and later the Second World War delayed the full implementation of state development (Havinden and Meredith 1993; Sieberg 1985). One rare exception before 1929 was the ten-year plan of Governor Guggisberg for the Gold Coast covering the years 1919-1928, but the focus was on the improvement of the infrastructure, not agriculture (Hopkins 1988: 190; Sutton 1989).

British possessions in Africa had very little in common with India. As has been underlined by Harriss, there exists and existed some vital differences between India and Africa both on a general and on a regional and local level. It seems as if Africa's problems within the food economy was relatively low production and was for the most part in female hands, low commercialisation of food products, inferior infrastructure and a weak bureaucratic tradition (Harriss 1988: 167-168). After this was recognized, British attitudes towards state

intervention changed slowly in Africa. At the beginning of colonial rule, African societies were thought to be more or less self-sufficient. In fact, one prevailing argument of the colonial authorities was for decades that the subsistence agriculture of the African households should not be challenged, only extended by the promotion of cash-crop production. It is therefore not surprising that the first - and in most cases only - task of the Agricultural departments was to do research on cash-crops, whereas the focus on food-crops only arose during the Second World War and the policy of national food self-sufficiency (Richards 1985: 19; Vaughan 1987: 80; see also Vail 1983 and Phillips 1989). During the 1920s, a gradual shift took place in government agricultural policy. The African farmer and the whole farming system was coming under attack from soil conservationists, seeing the former self-sufficient systems as being self-destructive. How to change the farming system was hotly debated in the 1920s and 1930s. However, with limited financial resources at hand, the various British colonial governments did not do much before the winds of change blew through in the 1940s (Lugard 1965: 526-533; Beinart 1984: 52-84; Anderson 1984: 321-345; Richards 1985: 19-36).

Indeed, one can argue that the limitations of the Indian case can also be used to illustrate the early colonial situation in Africa. One hotly debated theme in African history has been the question whether the various African societies had food economies that both could produce enough to feed themselves and a surplus that could be exported in times of a food-shortage to other places. The tricky question here is about the existence of a grain (or food) trade. Clearly it existed in some regions, but compared with nineteenth century India, the African grain trade looked meagre (Zeleza 1993). However, this question needs much further investigation. At least in some regions - and all linked with the existence or expansion of long-distance trade - the nineteenth century witnessed a growth in food production for sale (Roberts 1980; Koponen 1988; Hanson 1990; Weiss 1997). Another question that needs much further clarification are the possibilities of the pre-colonial African states to prevent and relieve famines. Perhaps there is enough evidence for a hypothesis that gives pre-colonial African states an active role, such as is suggested for the Sokoto Caliphate by Watts (1983). In any case, such a policy - if we can speak about one - would certainly have been labelled as 'paternalistic' by the classical economist as it meant an active intervention by the government. However, evidence is relatively weak for such an assumption. In any case, any large scale relief operations of taking grain from a place of surplus to the place of need was hindered by restrictions in the infrastructure. Either people had to migrate - an option that both pre-colonial as well as the colonial states did not wanted to encourage - or they had to suffer at home.

As we shall see most clearly in the case of the Anglo-Egyptian or Nilotic Sudan but also in Tanganyika, British famine policy indeed was a great shift from pre-colonial actions. Government famine relief was much more a political action than an economic or a humanitarian one. First of all, it was a means to give

legitimacy to the colonial regime. In the case of Northern Nigeria, which will be discussed in part three, this aspect is not prevalent. One reason for this was certainly that the African colonies and domains were at a lower step on the agenda than India, and that there existed a huge difference in interest in Britain between the various African regions. Last but not least, the Colonial Office was not the India Office: India was the 'jewel of the crown' of Britain, and high ranking members of the British aristocracy were to be found in the Council of India. For the African domains north of South Africa, the interest of the British public, as well as the British government, was at its best half-hearted.

2.1. The Anglo-Egyptian Sudan

The Anglo-Egyptian Sudan was to receive its national famine regulations in 1920. As in India, they were not applied to all provinces immediately or equally, but they provided a guide for government action in case of famine during the whole colonial era. The regulations included an early warning system, taking account of signals indicating famine. These were rainfall, the annual rise of the Nile, price movements but also the wandering of paupers, the activity of the grain trade and the movements of flocks and herds. If a famine was anticipated, the government should react. There was a system of preliminary measures of preparation and tests to make sure that the government was prepared for scarcity and people, in fact, were in need of assistance. If famine conditions were to be declared, test works were to be converted into relief works, more relief works were to be opened, gratuitous relief was to be distributed to those not able to work, poor houses to be opened and grain and fodder to be imported (Shepherd 1988: 66-71). As in India, the relief operations were to be supervised by the Colonial, viz. European, personal.

In fact, the 1920 regulations were the outcome of government action during the drought of 1913 and the famine of 1914/15 in the Nilotic Sudan. As Shepherd has pointed out, the intellectual and policy background to the British actions during the famine, as well as the 1920 regulations, were the Indian Famine Codes. However, this was only one side of the coin. The other side was that the British administration in the Nilotic Sudan had politically justified its own existence partly on the grounds that it would not tolerate the famine conditions prevalent before the conquest. The Mahdist state had been able to establish only a limited famine relief system in the 1890s, not to speak about any measures to prevent famines. On the contrary, famine relief was a part of the Mahdist government's policy's used to punish its enemies within the state and to favour its allies (Shepherd 1988: 36-38). In the case of Darfur, which between 1898 and 1916 was independent, the non-existence of any government famine policy had turned the

country by 1916 from a 'moral economy' to a 'shattered economy' (De Waal 1989: 61, 65-67).

The regulations proved to be quite effective but it was soon realised that at least on the regional and local level, the government had to interfere with the grain trade and the grain market. Although the merchants were generally seen as allies in the prevention of famine, colonial administrators had to put the teachings of laissez-faire aside and sell or distribute subsidised grain. Due to ideological considerations regarding public famine relief and prevention, there was an ambivalent policy towards the building of local reserves - as it would have meant an intervention in the market - and an even more hostile attitude towards the erection of internal trade barriers - as it would have been an intervention in free trade (Shepherd 1988: 42-43). However, on the local level such a policy was not implemented and especially in the remoter provinces, such as Equatoria, Darfur and the Blue Nile, the colonial administration tried to maintain a modest grain reserve. The government frequently interfered with the grain market to prevent hoarding and speculation and purchased (at least in Equatoria) surplus food whenever it was available (Hødnebø 1981: 59; De Waal 1989: 130).

2.2. TANGANYIKA

In Tanganyika, famine prevention and relief measures were embodied in the Native Authority Ordinance of 1921, the Native Foodstuffs Ordinance of 1924 and the Circular No. 33 of 1930. The 1921 Ordinance empowered native authorities to order all natives under their jurisdiction to cultivate and to storage sufficient food for the maintenance of their households and future sowing. Furthermore, it included restrictions on trade and beer-brewing when food supplies were jeopardised. The 1924 Ordinance further strengthened the restrictions and regulations of trade in times of food shortages. It also gave district officers the possibility of prohibiting trade in foodstuffs at all and of prescribing maximum prices for foodstuffs in their districts (Bryceson 1980: 300).

However, these measures proved to be inadequate during the late 1920s when famine occurred in several provinces. The situation was most disastrous in Bugufi; although the government dispensed famine relief - too late - several hundred people in Bugufi alone died. The outcome of the whole situation was Circular No. 33, 'Famine and Famine Relief'. It set out explicit administrative procedures for dealing with famine, including early warning systems (annual surveys of villages and their food reserves), public relief works and specifications of relief distribution as well as preventive measures. Famine prevention measures were basic and usually did not require funding, being merely the exhortation to plant drought resistant crops (cassawa and sweet potatoes) and to establish village or regional food stores. Famine relief measures, when they were decided to be

implemented by the government, were to be on a food-for-work basis, i.e. the recipients were to be made to pay in kind or cash, but if someone could not pay, relief was to be given free at the government's expense (Bryceson 1980: 301-302; Bryceson 1990: 68-69).

According to Bryceson, British famine policy in Tanganyika, based on the intervention of the government, developed from unreliability to that of regularity. A marked factor was, however, its 'paternalistic' undertone: as elsewhere in the British empire, relief operations were to be decided, operated and controlled by the colonial administration. One could develop this argument even further by stating that the famine policy indeed was paternalistic also in an 'European' sense: The colonial state was the guardian of the colonies and its duty was to promote the welfare of the inhabitants. Although there still was an element of laissez-faire in the famine policy, it became heavily influenced by the idea of trusteeship and Fabian-inspired colonial/state development. In the case of Tanganyika, the British colonial state in fact intervened in the grain trade, importing approximately 10,000 tons of grain or more annually (Bryceson 1980: 303). A part of this grain supply was used as famine relief, contrary to the teachings of classical economics.

There are several motives of the British colonial administration for providing relief and even putting an emphasis on preventive measures in Tanganyika. One certainly was the immediate humanitarian aspect, being itself a blend of Fabian-inspired state responsibility and imperial paternalism. Another must have been the legitimacy aspect - Tanganyika being a former German colony under British mandate of the League of Nations. Certainly, the German colonial apparatus provided relief during former times of hardship and famine. However, the kind of relief offered - food-for-work - did in several aspects differ from later British actions. The common theme of the German relief was compulsion: relief was not to be given free but at a low price or as payment for work (Koponen 1994: 345, 404). In theory, this food-for-work mentality did not differ much from British practice. In praxis, however, the German colonial government was able to 'succeed' where the British had 'failed' - public work sites had so little attraction that people even preferred starvation. Famines were also used by the German government as well as by the European planters to get cheap labour through the food-for-work programmes (Kjekshus 1996: 140-141; Koponen 1994: 346, 405). To win national and international support, one can argue that the British colonial government had to do better than the German administration in this matter.

A third motive had partly to do with legitimacy of colonial rule, partly with pure politics and security measures. To counteract the possibilities of peasant rebellions or unrest, food was used as a weapon in this matter. During the Maji-Maji-uprising in the early twentieth century, destruction of fields and food stores led to famine, which was itself part of the government policy. Afterwards, and especially during the British era, the importation of food during poor crop years had the same aim: to quell rural (and later urban) unrest (Seavoy 1989: 157).

2.3. Southern Rhodesia (Zimbabwe)

In Southern Rhodesia, today Zimbabwe, British famine policy went through several stages, from laissez-faire to government intervention gradually developed during the 1910s and back to laissez-faire mixed with a capitalist system of famine control in the 1930s (Iliffe 1990: 10-11). (As Iliffe pointed out, in the 1960s the system changed back to direct government intervention due to the shortcomings in the settler-capitalist economy in handling famines.)

The case of government famine policy in Southern Rhodesia is interesting, as it highlights another kind of praxis than in the Sudanese or Tanganyikan cases. The various stages in the Southern Rhodesian case have been studied by John Iliffe (1990). Up to the famine of 1916, government famine policy was one of non-intervention. Food-for-work was the backbone of a very 'German' notion: people had to buy relief grain with cash, stock, or migrant labour; only the incapacitated might receive free grain. Private trade was not to be interfered with. However, by 1916 this policy of minimal or no intervention was changed. Due to the fact that Southern Rhodesia had faced a previous famine in 1912, in 1916 the officials had the experience to foresee the crisis of 1916 and to provide against it. In fact, these pre-crisis measures came very close to the various early warning systems presented in the overview. The break between 1912 and 1916 famine relief measures was that the government interfered with free trade and the market forces by fixing a basis for the grain price and delivering itself grain to the market. Another innovation was that the debt of people in grain, issued either against payment or on credit, would be written off. In one sense, however, the measures taken in Southern Rhodesia differed very much from those taken in India: hungry men in Southern Rhodesia were expected to leave home and work for private employers as extensive famine relief works were not organised (Iliffe 1990: 62-64). The key difference between India and Africa thus became obvious - the much weaker colonial government in Africa, especially in the peripheral regions and provinces, did not have the financial resources or the capability as well as bureaucratic tradition and possibility to organise public works on such a large scale as what was possible in India. The other key difference was shortage of labourers (Africa) instead of shortage of work (India). This explains why migration to food-for-work sites in stead of in situ food-for-work programmes where preferred by most colonial governments in Africa.

The situation had changed in Southern Rhodesia by the next famine of 1922. At that time public works were organised (Iliffe 1990: 74). However, just as government famine policy had taken shape in Southern Rhodesia, the decline of government relief set-in the 1930s. The reasons for this are listed by Iliffe. First of all, society had gradually changed from a precapitalistic food system to a system centred on European grain production, rail and motor transport, and a state-controlled marketing structure (the Maize Control Board). Due to these

changes, the transport system had been left to distribute food whereas the Maize Control Board controlled the price of grain, and more important, held grain stocks and had licensed agents that provided a distribution machinery which largely came to replace that of the Native Affairs Department (who had previous been responsible for organising relief operations). Secondly, there was a change in the personal in charge. Chief Native Commissioner H.J. Taylor, whose strategy the 1916 and 1922 famine relief schemes were, had retired in 1927 and had been replaced by C.L. Carbutt, who returned to the laissez-faire policy (Iliffe 1990: 80-81, 85-87; see also Palmer 1977: 236-243).

One reason for the return to government non-intervention was perhaps that the colonial government in Southern Rhodesia never draw up any written regulations or codes. Therefore, the famine policy pursued was bound to individual officials in charge, their ideas and preferences.

3. The failure of famine prevention in Northern Nigeria

The third section of the study deals with the question of why the British administration in Northern Nigeria failed to produce a famine policy or even some Famine Codes. This is somewhat surprising, as there is a striking similarity of the environmental and social conditions in Northern Nigeria and the Nilotic Sudan. In fact, even the records of drought and famine are very much alike. Both regions lay in the savanna belt of Africa and are mainly Muslim societies, having a long history of Islamic states as their background. In the late pre-colonial period both areas had witnessed famines and times of hardship, although there was a vital difference. Whereas the Mahdist state faced real problems with drought, rinderpest and famine at the end of the nineteenth century, this situation - apart from the rinderpest epizootic - was not prevalent in the Sokoto Caliphate. As has been pointed out already, the failure of the Mahdist state to establish famine relief measures did not have its equivalence the Sokoto Caliphate. In fact, drought or famine was never really a serious question that would have occupied the minds of the early colonial officers in Northern Nigeria, mainly because it was never witnessed by nineteenth century European travellers. As drought and famine struck thrice in Northern Nigeria during the first ten years of British colonial rule (1903-1913), the colonial administration was neither mentally nor practically prepared to act; the colonial administration did not have any idea how the pre-colonial state handled famine relief or if it had failed to do so. Thus the immediate legitimising force to produce a public famine policy was lacking. On the contrary, it seems as if the colonial state in Northern Nigeria had legitimised its existence through the conquest and by upholding the established social, political and economic order (except slavery, which was to be abolished).

Some southern areas of the Protectorate of Northern Nigeria faced famines between 1903 and 1906. Although the High Commissioner of the Protectorate, Sir F.D. Lugard, was aware of the need for famine relief, neither the Colonial Office nor the Colonial state established any public famine relief. Only on the provincial level were actions taken, and, as it seems, more due to the responses of the local Resident than the colonial government. During the famine of 1908, nothing at all was done by the colonial officials. Again, in 1914, the northern parts of the Northern Provinces of Nigeria faced widespread famine. This time, the Colonial Office was not even informed about the event. Colonial government action with regards to a coordinated famine relief or an outline of a public famine relief scheme did not happen. Famine relief operations that were established in 1914 were mainly unofficial actions inaugurated by the local Residents (Watts 1983; Watts 1987; Weiss 1997).

Between the lines one can grasp some kinds of reflections about the 1914 famine. Nobody questioned that drought was the only trigger for the famine since critical self-reflection was not on the agenda. The negative example of colonial - official - famine relief in Zungeru in 1904 had shown that rice imports to meet food shortages in the local market were doomed to fail. In 1904, local grain traders sold grain at a lower price than the government, in 1914 the rice imports came too late. Transport and distribution were the main problems, but when solved, grain from the Southern Provinces seemed to provide some relief. And, in fact, the majority of the people who died of starvation were French subjects and not British. In fact, the Government did what it had to do for those for whom *it was responsible* - the native clerks, the prisoners, the lepers in camps and the military. Grain was made available for these groups on behalf of the Government. The Native Administrations did what they could, or were supposed to do, by reacting after the Resident urged them to do so. Everything seemed to have worked following a maxim that was summarised by Lugard afterwards: use funds available in the Reserve or Investment Fund of the Native Treasuries (Weiss 1997: 398-409; Smith 1997: 432).

As an outcome of the negative experiences during the famine of 1914, the Director of the Department of Agriculture, P.H. Lamb, submitted in 1919 a memorandum to the Secretariat of the Northern Provinces (SNP), in which he presented his consideration for a scheme of public granaries for provision against famine. Two other schemes were presented as well, both including a scheme of village/district granaries where a part of the grain harvest could be stored as a safeguard against possible future famines. However, the schemes were never put into practice. Following discussion within the Colonial government and after responses from the Residents, they were turned down and shelved. No general and official scheme for prevention of famines and famine relief was ever established in Northern Nigeria (Watts 1983: 302-304, 312, 340-341, 346-347; Weiss 1995).

The failure to establish a scheme for preventing famines has been studied by Watts and Shenton. In their view, this failure was due to both official ignorance and the fear that the peasants would become dependent on government relief and the colonial government's belief in the tradition of laissez-faire and in the market. Both Shenton and Watts have convincingly argued that there was no colonial famine relief policy. All efforts of the colonial state were to stabilise its political and economic existence and presence in the region (Shenton & Watts 1978: 59; Watts 1983: 290, 302; Shenton 1986: 130).

On the other side, by 1919 a kind of unofficial famine relief policy already existed. The scheme consisted of three elements: 'food-for-work'-programmes, free distribution of grain to those who could not work and tax exemptions. In a sense, this unofficial famine relief was in line with the non-interventionist model: interference with the grain trade or the grain market was the last thing the colonial government wanted to do, to establish an export ban was never a convincing alternative. Interesting enough, in 1914 such non-interventionist views were held both by the Sultan of Sokoto (arguing in Islamic terms) as well as the Residents and colonial government (arguing in classical economic terms). There were many problems in this unofficial famine policy. First, it was on an ad hoc-basis, never planned nor aiming to prevent future famines. Another problem was the transportation and distribution of relief grain - communications were bad and did not much improve after the introduction of the motor lorry. A third problem was who had to pay for relief operations - a typical laissez-faire'an problem of a colonial state which was supposed to stand on its own feet without support from London. A forth problem was the imperialistic undertone of the relief - it was to be organised and supervised by the European staff (but paid for by the Native Administration or the receivers themselves).

The overwhelming problem that Lugard, as well as all other colonial governments, faced was that the Colonial Office did not want to become financially involved in the development of the colonies. Colonies should not become a burden upon British taxpayers but were expected to pay for themselves. The only way this was to be achieved was by creating revenue for each colonial government either via taxes or via customs duties and other charges (Cain & Hopkins 1994: 205-206). The concept of indirect rule, as was fully implemented in Northern Nigeria, provided one solution to the problem by dividing finance between government and native revenue. Funds would be divided by the principle 'fifty-fifty', half of the taxes being regarded as 'the government share', with the result that the government share had to be in cash rather than in kind. And, due to a thorough 'transformation' of the system of taxation in Northern Nigeria by merging all taxes into a 'general tax' paid by every household, but assessed and collected on a village basis, cash instead of kind was paid as tax (Garba 1986; Shenton 1986).

The revenues of the Native Administration did not appear in the colonial budget and were independent of colonial treasury or audit control. This was certainly an advantage for the colonial government since, through the Residents, the government controlled the expenditure of the Native Treasuries (Carland 1985). But the control of these funds was not in the hands of the Native Administration. As Lugard explained:

> It is manifestly not to the public advantage, and the progress of the Protectorate as a whole, that Chiefs should expend their surplus funds on works of trivial importance, while the Central Government is unable from lack of funds to carry out very urgently needed works (Lugard 1970: 335).

This meant that any project or scheme proposed by the Native Administration had to be approved by the colonial government - or vice versa. If the colonial government or the Residents had a certain project in mind, it could only have been carried out by 'convincing' the emir of the usefulness of it.

Although never really put into print, the grand idea of Lugard seems to have been that the colonial government was responsible for the welfare for its employees, the native clerks, the military, the prisoners and the lepers in camps. According to Lugard, the general moral and material obligations of British rule were the "development of natural resources for the mutual benefit of the people and of mankind in general [...], (to) promote the material development of the tropics and the welfare of the inhabitants [...] (and the responsibility) for the welfare of people in British tropical Africa (Lugard 1965: 58, 60, 64, 72)." But these were only the outlines of Lugard's grand idea. In practice, government revenue would be allocated to pay the European staff, to be invested in the development of the infrastructure, including railways and to pay the military. The duties of the Residents were to carry out the policy of the Governor, but Lugard did not list promoting social welfare among the duties and tasks of the Resident. Nor did Lugard hint that the Resident was responsible for organising the storage of grain or famine relief. On the contrary, for example with regards to sanitation and improvement of 'native' cities, Lugard suggested that the cost had to be borne by the Native Treasuries (Lugard 1970: 11, 28).

British attempts in Northern Nigeria to organise relief during famines - not to speak about any preventive measures - were up to 1914 very similar to the ad hoc actions in pre-1880 India and, as a matter of fact, did not change that much in the following decades. Precautions against famines, which could have included an interest in developing the infrastructure, communications or agricultural development, were only half-hearted. The railway network remained rather poorly developed throughout the whole British period and motor lorry traffic was never in the hands of the colonial government. It was the same with agricultural development. Until the Second World War direct intervention by the colonial state in agricultural production and marketing was limited. An Agricultural Department

had already been founded in 1912 in Northern Nigeria by the colonial government, but its main emphasis was on the promotion of export crops (cotton) instead of food crops (Forrest 1986: 222-223).

Although not explicitly articulated in the name of laissez-faire and a deep belief in the market forces, the actions of the colonial government were primarily non-interventionist. Rather one could argue that British colonial famine policy, like any other policy in Northern Nigeria, was a mixture of trusteeship, humanitarian considerations and classical economics. However, Northern Nigeria was not the Sudan or India: there was never that much interest in Britain towards Nigeria as Lugard and others would have liked there to be. Northern Nigeria had no strategic value (as the Sudan or India had). The British could not be held responsible for their actions (as in theory in the case of Tanganyika as a mandate of the League of Nations) nor were there any extra pressure groups that could make a public case in Britain (as the white settlers in Southern Rhodesia). The various attempts to create some government famine relief schemes in Northern Nigeria was as much due to financial as to political reasons. Although officially the argument was that any scheme would cost too much and therefore the whole matter was delegated to the Native Authorities - as happened with the 1927 scheme (Watts 1983: 312) - it is possible to argue that the root problem was Indirect Rule. Whereas in the Sudan or in Tanganyika government famine relief was a means of legitimising British colonial rule and a famine policy had a political agenda, this was not the case in Northern Nigeria. The position of the Native Authorities was legitimatised through the colonial state and not, as in pre-colonial times, through the Muslim community (Tukur 1979); the Native Authorities were responsible for the welfare of their subjects, the colonial government for the development of the 'estates'. Any government regulation would have meant the inflation of the position and the legitimacy of the Native Authorities in the eyes of their subjects - a situation, which both the British as well as the emirs wanted to prevent.

4. Conclusion

Government famine relief did play a role in helping starving people in India as well as in British Africa. Various studies about direct government interventions during famines, be it in the market or in the grain trade, have shown that as relief measures they surely played a crucial role. Contrary to the ideas of classical economists, government intervention in and regulation of the free trade of grain has been a vital relief measure. However, our examples above (India, the Nilotic Sudan, Tanganyika, Southern Rhodesia and Northern Nigeria) have shown that the idea of non-intervention and laissez-faire have prevailed throughout the nineteenth and early twentieth centuries and in some cases even excused

government inaction. Shepherd's and Bryceson's studies on the impact of government famine policy in the Sudan and in Tanganyika give the impression that due to an active intervention the negative impact of famines was minimized. The same conclusion was reached by Drèze (1988b) in his study of the post colonial government famine policy in Africa: government intervention and preventive measures had a positive, if not crucial effect. In those cases where the government decided for one or another reason to follow a non-interventionist policy or to implement ad hoc measures, the end result was poorer or even negative.

It has to be underlined that all our cases dealt with 'pure' famine relief. The preventive aspect has in most cases been missing, neglected or not understood to be of any importance. In fact, it has to be underlined that most government famine policies only recognized famine but *not* the causes of famine. Thus the outcome of such measures as the ban on beer-brewing or the sale of grain could have a negative impact, especially in the long term. Preventive measures could therefore lead to entitlement failures, i.e. people having no money to buy food.

The step between famine relief and famine prevention is a huge one, especially in the colonial states. The preventive measures were in fact not existing. The reason for this was that the colonial government did not shift its emphasis towards a development of agriculture, communication and infrastructure and did not emphasize a policy of absolute food security - as was the case during and after the Second World War and the postwar decade of colonial development programmes in 1947. The case of the various British colonial famine policies in Africa reveals that those colonial governments that did have some policy guidelines (as the Sudan or Tanganyika) did make out better during famines than those governments that had none or only informal ones. However, it can also be argued that all kinds of preventive measures failed in the long run if they did not aim at guaranteeing the entitlements of the inhabitants. Such a preventive policy could only be achieved after a change in attitude by the colonial authorities - a shift from paternalism and trusteeship towards a full government development policy, wage labour and a modern society.

A comparison between government actions during famines in British colonial Africa until the early 1930s reveals that the actions of the colonial governments had little in common. Famine relief was not a question where the opinion or the assistance of London was requested. The various colonial governments had the liberty to choose which way to go for themselves. The Indian Famine Codes provided a starting point for some government officials. However, it seems to have been very much up to the individual colonial official which way to choose. This resulted in a situation where personal opinion guided government action. If not put on paper and given an official declaration, government famine policy was unpredictable - as it was the case of Northern Nigeria. It is striking that the Indian Famine Codes were not even used in the vocabulary of the colonial officials when

discussing a possible famine relief policy in Northern Nigeria nor were the examples of other British African colonies in the 1920s and 1930s used or even referred to by the colonial officials in Northern Nigeria.

Famines as such were not and could not be prevented by the famine policy of the British colonial governments. Government relief assisted some, if planned on an earlier stage, if ad hoc it usually was too late. However, in all societies - in India as well as in Africa - the government was never the first who reacted, responded and to whom the victims of a famine turned first. Private charity and help provided through unofficial channels, through patron-client-relationships or through relatives and kin were backbones of the survival strategies. Colonial governments acknowledged this fact and sometimes even noted and included the support of charity organisations in their famine relief schemes (India, Sudan). In other cases - especially when relying on a non-interventionist policy - the colonial governments even excused their inaction due to the (sometimes supposed) existence of voluntary or traditional charity. To figure out what role and what influence the traditional charity and unofficial/voluntary relief had during a famine in pre-colonial and early colonial times in India or in Africa would, however, require a study of its own.

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ADJUSTED ENVIRONMENT: EVIDENCE FROM GHANA'S STRUCTURAL ADJUSTMENT PROGRAM

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1. STRUCTURAL ADJUSTMENT AND ENVIRONMENT IN THIRD WORLD STUDIES

Environmental concerns are gaining ever increasing attention in the studies on the Third World's politico-economic transformation. After a prolonged period of relatively overwhelming neglect of environmental issues in development studies, their strong presence has become legitimate through both the aggravating natural conditions in the Third World and the intensifying role of institutional environmental watchdogs all across the world.

There remains, however, a great controversy over the causal interaction between the politico-economic transformation and environmental issues in development studies. Some scholars are prone to address environmental degradation to market imperfections and to advocate the free play of market forces to suggest an appropriate remedy (see e.g. Cruz et al. 1993; Gupta et al. 1995). The others may, in turn, regard the seed of the problem as precisely sprouting out from the economic agents' free-market behavior and call for increased government intervention to ease the utilitarian market orthodoxy (see e.g. Aubynn 1996). By the same token, there are studies in which environmental degradation in the developing countries is predominantly addressed to the Third World political elites' own development efforts (see e.g. Korvenoja 1993). Some researchers have, further, focused on man's desire for income growth in general and explicated environmental degradation to be inexorable in the early and intermediate phases of economic growth (see e.g. Barbier et al. 1996; see also Cleave 1988: 46).

Whatever the origins of the Third World environmental decay are and however they should be tackled, the naturo-societal mechanisms of the developing countries' politico-economic transformation and deterioration of their environments are extraordinarily ill-understood (Agarwal 1983: 4; Krugmann 1995, 148; Cruz et al. 1993: 40). Specifically, the most prominent example of societal transformation — the structural adjustment programs introduced by the World Bank and the International Monetary Fund (IMF) — need to be extensively studied in terms of individual policy instruments so as to be able to properly

articulate the interplay between the politico-economic transformation and environmental degradation.

This article will shed light on those interlinking mechanisms at the theoretical level, as well as perceive empirically some of the sources and destinations of environmental decay in the case of Ghana's post-1983 structural adjustment program. The structural adjustment program is treated as consisting of two policy-based components; the one is the strive for income growth and material accumulation and the other is the liberalization of the national economy. The first section considers such questions of growth — albeit being inherently included in the contemporary liberal-oriented economic reform packages — that are more broadly linked to man's desire for ever-ameliorating economic circumstances and are, hence, difficult to appropriately address to the structural adjustment programs solely. Those questions are present in both the mainstream liberal lines of thinking and the state-led Marxism-inspired alternatives, as well as in various human-friendly combinations. The second section deals with such elements of the economic reform that are readily attributable to the liberal-wing structural adjustment programs. Those elements intend to liberalize the workings of the economy through either changing the legislative and functional framework or diminishing the state's role in economic activities.

For the purpose of concreteness, the structural adjustment program is broken down into separate policy-based instruments whose functional mechanisms and impacts can, thus, be more tangibly illustrated. Ghana acts as a good candidate for the case analysis for she has implemented the World Bank and the IMF's structural adjustment program continuously ever since its initiation in 1983.

2. Strive for Material Accumulation and Environment

The structural adjustment programs contain policy instruments that target to raise the average income level and accumulate material welfare. These objectives are more or less explicitly present in most ideological aspirations due to which they cannot be directly attributed to liberal-wing policies alone.

The developing countries seek to improve their economic conditions through promoting the country's external trade and industrializing the national economy. The encouragement of external trade can be reduced to the promotion of the country's export performance that involves frequently a heavy emphasis on agricultural exports. If, in turn, an agriculture-dependent developing country is to give a sustained, strengthened impetus to nonagricultural exports, as well, intense export diversification efforts will be needed. Furthermore, in some cases, the country may also seek to increase the exports of services in which situation tourism is the field of economic activity that normally steps into the picture.

The industrialization of the domestic economy serves the purpose of expanding the export palette and creating the means to substitute for rival imports. Industrialization denotes building up the nation's production capacities, which requires efficient and inexpensive energy supply as an input factor. When feasible forms of energy supply are sought for, hydropower, nuclear power and fossil fuels are the energy sources that have sofar taken the lead.

3. Export Promotion

Many developing countries have resorted to the exports of agricultural crops in search of income growth. This has lead to the imminent need for agricultural modernization. Modern cultivation techniques reduce the pressure on marginal and fragile soils (Cruz et al. 1993: 42) but can lead to soil erosion and desertification if used intensively and large-scale (Aubynn 1996: 15; Goodland et al. 1986: 37). Closely related is the threat of fish depletion in the situation of over exploiting modern fishing techniques. Also, the modern cultivation tends to rely markedly on monocultural techniques that impoverish the soil (Amanor 1994: 59).

Modern cultivation techniques are frequently supported by heavy doses of fertilizers and agrochemicals (Cruz et al. 1993: 42). The crops can be increased and the pressure to cultivate fragile areas thereby diminished. Extensive use of agrochemicals contaminate, however, soil and waters and can even lead to human toxification. Biological defence and reproductive mechanisms can collapse in that the natural predators and pollinators of crops are destroyed and resistant pests created. (Goodland et al. 1986: 38; Gupta et al. 1995: 518.)

The modern varieties often require intensive care and regular irrigation to flourish. Irrigation reduces soil erosion but can contribute to increased soil salinity and water logging that pose further threats to cultivation (ibid., 520). Water logging has, in turn, the negative consequence of spreading schistosomiasis and malaria in the exposed areas
(Goodland et al. 1986: 36).

The political leadership can seek to encourage agricultural production and exports with the help of producer price hikes. The increases in agricultural producer prices enhance the use of fertilizers, which fuels fertility and can, hence, reduce cultivation on sensitive soils. Natural resource depletion can thereby be diminished. On the other hand, the adoption of state-of-the-art techniques can lead to even more extensive cultivation and exhaustion of soil if the farmers respond effectively to the price incentives. (Aubynn 1996: 9–10; Cruz et al. 1993: 42.)

The exports of the developing country lean, moreover, commonly on the heavy exploitation of natural resources. Tropical timber is composed of exportable species that may also be rare or endangered. Increased logging decreases the need for other natural resource depletion, but can lead to the

extinction of endangered species. Deforestation can also stand as one of the most dramatic consequences if timber felling is extraordinarily massive (ibid., 42; Krugmann 1995: 150). The natural timber resources are in jeopardy to be entirely depleted in which situation the amelioration of the export performance is to remain of short duration only. The tropical undergrowth that offers a biosystem for a multitude of flora and fauna can be dramatically destroyed. Local losses of forests change irretrievably the indigenous people's traditional forms of life (Agarwal 1983: 5). Most far-reachingly, soil erosion and even climatic shifts — if deforestation is world-wide — can pose serious threats to the future of our planet. (Gupta et al. 1995: 522–523; Loxley 1990: 18.)

Increased depletion of mining resources can help to avoid the most severe effects of deforestation in that tropical timber exploitation can be diminished. The mining resources can also, nevertheless, be tapped, which would turn the economy in an unfortunate state of decline. Mining activities threaten seriously the near-by ecosystems (Aubynn 1996: 26). The extraction of metal from ore requires chemical treatment — e.g. gold extraction needs sulfur-based processing or mercury-intense handling — that pollutes soil and waters locally and air more widely (ibid., 24–25). The consequent acid rains harm agricultural crops and can cause together with mercury emissions danger to the human life.

The export dependence upon primary products can be reduced if the country's export palette is significantly diversified. Normally, there is a tradeoff within raw materials in that the diversification is attempted through other unfinished exportables. This reduces the exploitation of one natural resource but increases that of another. Diversification can also be sought for through industrialization and setting up of manufacturing capacities.

The developing country may also make efforts to increase nontraditional exports, in particular services. Tourism can, in some cases, offer an appropriate avenue for fund raising if the country has an attractive location or natural monuments and sights that lure tourists. The inflow of tourists expands the country's foreign exchange reserves from where profits to wildlife sector can be allocated. Moreover, land dedicated to wildlife can be acquired. The promotion of tourism requires, notwithstanding, construction of hotels and tourist infrastructure like restaurants, resorts and safari routes. This may disturb ecosystems and threaten to kill fragile species extinct.

4. Industrialization

Industrialization in a developing country requires sectoral transfers of people from primary production to labor-intensive manufacturing. The expansion of industrial laborforce alleviates pressure on the limited cultivable land resources (Cruz et al. 1993: 42) and especially on semicultivable fragile slopes, wetlands and arid areas,

which pattern is often intensified by the heavy concentration of industry in urban agglomerations. Industry exploits, however, many raw materials to such an accelerating extent that the resources can be totally depleted.

The industry constructed in the Third World may frequently not fulfill the basic environmental standards adopted in the industrialized countries due to the financial and technological constraints. The effluent discharges can contaminate the surrounding waters and soils and lead to air pollution in wider circles, as well (Agarwal 1983: 5; Cruz et al. 1993: 42; Goodland et al. 1986: 39). Especially, the hazardous wastes that emerge as byproducts of the production processes may pose enormous risks to the environment and public health if not stored and disposed properly (ibid., 32).

Electrification accompanies industrialization in that reliable and inexpensive energy sources are needed. None of the major energy sources — hydropower, nuclear power or fossil fuels — is environmentally harmless. The tradeoff exists between the various energy-supplying methods in that the more any of these is avoided, the more it has to be compensated by the other methods. Hydropower is less pollution-prone of the three and the supply of energy is virtually unlimited. Notwithstanding, the construction of a hydroelectric dam with its storage reservoir adds up to flooding and water logging, which may have the consequence of schistosomiasis transmission and spread of malaria. The dam also covers initially huge areas with water, which requires villages of people to be involuntarily resettled elsewhere. (Ibid., 37; Gupta et al. 1995: 524.)

Fossil fuels are the second alternative. Coal and oil are economically available, however, in very limited amounts, which may result in complete depletion if used extensively on the global scale. The firing of fossil fuels extracts sulfur that pollutes the breathable air. Sulfur dioxide emissions drift in contact with oxygen and water, which results in acid rains. Acidification of waters and soils endanger fragile life forms and can gradually engender the cultivated lands unsuitable for agriculture.

Nuclear power is efficient but expensive in the early phases of electrification. The disposal of radioactive nuclear waste remains still an unsolved problem on the global scale, let alone at the national level. If the safety standards of the nuclear power stations are not constantly watched, small human errors can lead to devastating consequences the impacts of which will not remain within the state borders.

5. Economic Liberalization and Environment

The liberalization of the economic functional framework is achieved through removing the barriers to external trade, freeing the price determination and downsizing the role of the state. The act of liberalizing the foreign trade contains

in itself very little directly attributable consequences for the environment, it is rather the uncritical promotion of the exports that may lead to detrimental exploitation of the environment. The free price determination bears crucial linkages to the environmental change in the form of the reduction and abolition of state subsidies to various input prices as well as the fluctuations and realignments of the exchange rate of the national currency. The contraction of the state's role becomes most prominent when the government expenditures are aimed to be retrenched and the communal ownership of land is atomized to private holders.

6. Unleashed Price Determination

Agricultural chemical prices may be heavily subsidized in developing countries. Fertilizer and pesticide subsidies can be considered a form of fiscal transfer from urban to rural dwellers which have the objective of healing poverty conditions in rural areas and promote export-crop production. The subsidies have also the intra urban distributional element; wealth is transferred from the few taxpayers to the urban poor and middle class that can enjoy cheap subsidized food.

When the state aims at removing the agricultural chemical subsidies, the prices of fertilizers and pesticides for the farmers will be determined in the market and will inevitably rise. This decreases wasteful use of the chemicals, which contributes to less water and soil pollution (Cruz et al. 1993: 41). The increased prices may, however, invite the poor farmers to shift to cheaper, less efficient — and perhaps even forbidden — chemicals to offset the gap (Gupta et al. 1995: 517; Krugmann 1995: 149). Removal of tariffs on imported agricultural chemicals, in turn, decreases their domestic price equivalents. This may lead to intensified utilization of less pollution-prone agricultural techniques if available at lower costs than prior. Nonetheless, the tariff abolition may equally well result in more abundant wasteful uses of the chemicals, which contaminates waters and soils and finally erodes the soil. (Cruz et al. 1993: 42.)

If water and electricity prices are subjected to rationalization efforts, they rise by the same token as the chemical prices. Wasteful exploitation can thereby be reduced (Gupta et al. 1995: 520) but the apparent disadvantage may be worsened soil erosion in cultivated areas since irrigation water will be of short supply. Electricity production can be pushed into a more efficient and environmentally-friendly direction in that the old technologies lose their competitive edge. This reduces pollution but may drive the poor peasants to substitute fuelwood for commercially-produced electricity. (Ibid., 521.) In such a case, deforestation and soil erosion will be mounting local threats.

Devaluation of the national currency depresses the purchasing power parity of the currency vis-à-vis the other currencies in the world market. Devaluation

creates incentives for exporters but disincentives for importers. Export crop production can be encouraged, which allocates land and inputs from food to cash crops and contributes to resource depletion. Intensified export crop production requires also heavier chemical doses. However, if the chemicals are primarily of foreign supply, devaluation will render them more expensive, which may lead to rapid soil exhaustion. Domestic industries may benefit from possibly encouraged foreign demand for their produce but may be harmed by more expensive input materials if their share in the production process is significant.

Some developing countries rely keenly on tourism in search of foreign exchange. Devaluation will bring the developing country destinations more competitive for foreign tourists. Improved access to foreign exchange in the developing countries relieves finance for the tourist industry's purposes, e.g. the construction of hotels. A share of the accrued foreign exchange can be allocated to wildlife and environmental protection. Nevertheless, heavy influx of tourists and the expansion of tourist infrastructure disturbs ecosystems and can even lead to the unfortunate extinction of fragile species.

7. Downsizing the State's Role

The developing country faces heavy pressures of contracting the state's role in the economy if the political leadership opts for the World Bank/IMF-supported structural adjustment program. The downsizing pressures stem not only from the international financial institutions' neoliberal ideology but significantly also from the countries' internal deficiencies to finance the extensive and even overwhelming activities of the state.

Public spending retrenchment has many environmental implications. The bulk of the environmentally-related infrastructure — e.g. sewerage, water purification plants, waste recycling and national parks — is publicly financed. If government expenditures are decreasingly allocated to sewerage and waste collection and processing, such infrastructure will inevitably decay (see Aubynn 1996: 27). The evident threat is soil and water contamination and decline in public health since wasting and littering takes over the people's surroundings. These problems are extremely prominent in high-density urban areas where the living circumstances may deteriorate dramatically at a rapid pace.

Reductions in public expenditures decrease also the financial allocations to environmental protection. The provision of national parks declines, which can pose tropical wildlife and biodiversity in great jeopardy. On the other hand, if the political leadership decides to direct less funds to public corporations, the surpluses can be expended to support environmental and wildlife protection. Furthermore, the state-owned corporations are frequently large-scale production units, engaged in heavy industry. If their operations are markedly downsized and

the inefficiencies purposefully eliminated, the consequent result may be less air, soil and water pollution and decreased natural resource exploitation.

The structural adjustment programs involve the inherent objective of diverting agricultural land to private ownership. Private land tenure may raise the rural output since the farmers become more committed to their lands and are prepared to improve them. Increased output may diminish pressure on marginal and fragile soils (see Amanor 1994: 53) and help to improve fertility and productivity. (Krugmann 1995: 152.) On the other hand, the farmers may become lured by growing wealth, which threatens to expand the cultivated area, decrease fallowing and counteract fertility and productivity. In addition, intensified use of agrochemicals can lead to soil and water contamination.

8. Evidence from Ghana

Ghana's exports consists of gold, cocoa and tropical timber to a significant extent (see e.g. ISSER 1994: 49–50). The increased mining operations have been reported to cause environmental decay in Ghana. Opencast gold mining has disturbed the soil to some extent and the gas emissions of all gold-extraction operations have polluted the air and waters locally (Aubynn 1996: 24–24). This may be remedied somewhat in the Obuasi area in the near future if the pollution-free, state-of-the-art bio-oxidation gold extraction method proves efficient and economical in the Ashanti Goldfields Corporation (see Owusu 1993: 25). Moreover, the mining operations — including also those of bauxite, manganese and diamonds — have contaminated the near-by waters, especially rivers, destroyed the surrounding soils, flora and fauna and thereby endangered the ecosystems in the exposed areas (Aubynn 1996: 25–26).

The forestry sector has been expanded continuously and it has contributed increasingly to Ghana's foreign exchange earnings. Commercial logging has contributed to deforestation that amounted to net 70,000 hectares annually in the 1980s; this compares, in turn, to 0.8% of the total land area of the country (UN 1993: 783; see also von Bonsdorff 1997: 33; Mireku 1991: 3). For the comparison, however, it should be emphasized that the share of fuelwood and charcoal is 12-to-14-fold in proportion with industrial roundwood (ECA 1992: 27), the links of which to the neoliberal structural adjustment program are extremely difficult to identify. Increased logging may have also stripped off tropical undergrowth and jeopardized local biodiversity. Furthermore, the Ghanaian timber industry will expose many fragile, commercially valuable tree species at wellnigh complete extinction (e.g. Afromosia, Odum, Sapele and Mahogany) if unmanaged felling continues. In addition, some of the exploited endangered species are even commercially less valuable (e.g. Dahoma, Avodire and Kyenkyen) (GFIP 1989 in Aubynn 1996: 20–21).

Erosion has also already become an environmental concern in Ghana. In the northernmost parts of the country, the Sahara desert expands at a slow but steady pace southwards forcing the local inhabitants to be resettled elsewhere (von Bonsdorff 1997: 34). Fuelwood collection has, hence, become extraordinarily harmful in these sensitive areas, which further complicates the life of the Sahelian poor. Coastal erosion is most prominent in the neighbourhood of fishing areas alongside the southern Gulf of Guinea and Lake Volta. Especially, the over efficient fishing techniques and the use of chemicals and dynamite have posed the most serious threats to coastal erosion (ibid., 34).

The fertilizer prices have increased rapidly in comparison to the Ghanaian inflation partly due to the gradual withdrawals of agricultural subsidies; the prices of ammonium sulfate, nitrogen phosphate potassium (NPK 15:15:15) and the muriate of potash have risen 10-to-18-fold in proportion to the overall Consumer Price Index. On the other hand, the price of S. superphosphate has dropped to an approximate half in relative terms. (See ISSER 1994: 88 for the cedi prices of fertilizers.) Respectively, the use of fertilizers has decreased until as early as 1987 except that of phosphates (Aubynn 1996: 13), which hints at the substitution of phosphates for other fertilizers. The lowered aggregate fertilizer use has contributed to lessened environmental stress in the relative terms of chemical doses, but the overall effect is likely to remain marginal; this is because fertilizers are used in solely 5% of the cultivated area in Ghana and the dominant cocoa industry can survive without fertilizers at all (ibid., 14).

Cocoa cultivation served long the purpose of being the most important export earner in Ghana and its consequences are readily visible. Cocoa cultivators have benefited on the long run from the heavily raised producer prices under the structural adjustment program while the food producers have helplessly lagged behind in this respect. The Ghanaian political leadership has, nevertheless, chosen to diversify the country's exports away from cocoa. This has decelerated the growth of the cocoa production (FAO 1985: 42; 1993: 189; UNCTAD 1991: 178) at the turn of the decade and depressed its share of the total exports below that of gold (ISSER 1994: 49). Food-crop production has despite grown slowly and become more efficient in terms of yield per area (ibid., 80) albeit still lagging behind the needs of the growing population. Since the aggregate use of fertilizers has decreased, it is assumable that at least part of the food output growth has been achieved by land expansion to marginal soils (see Aubynn 1996: 15–16). Locally, this may have lead to destruction of undergrowth and the jeopardy of tropical flora and fauna.

Ghana's industrialization has proceeded rather slowly in that the share of the industry's contribution to the total GDP still remains below 15% (ISSER 1994: 75). This explains the low level of carbon dioxide emissions in the early 1990s; 0.22 metric tons per capita comparing to the African average of 1.03 metric tons (WRI 1992: 346; 1994: 362). By the same token, electricity is predominantly

sourced from hydropower — the most important power station being in Akosombo — which helps to diminish the CO_2 emissions of fossil fuels.

Urbanization has, on the contrary, focused heavily on Accra despite the official statistics fail to show any alarming developments. The cities' unofficial populations amount to manifold compared to the official figures, which has certainly exacerbated the hygiene situation, sewerage problems and littering in the urban areas. For instance, the Mayor of Accra, Nat Nuno-Amarteifio, has become concerned about the contribution of Accra's three-million population (officially around one million) to aggravating environmental problems and the inhabitants' deteriorating living surroundings (Yeboah-Afari 1996: 1718–1719). This may have further future implications for public health if the situation remains as unfortunate as sofar.

9. CONCLUSIONS

Environmental decay is already evident in Ghana although many factors may have effectively decelerated it. The strive for increasing economic welfare and the liberalizing efforts of the World Bank/IMF structural adjustment program have contributed to Ghana's environmental problems. The most dramatic contributors are the export promotion of gold and tropical timber whereas that of cocoa may have remained less significant. Local pollution, soil acidification, destruction of tropical undergrowth, flora and fauna, deforestation and coastal erosion have been reported to initiate from mining and logging operations as well as from fishing. Industrialization and electrification, on the other hand, have not been among the major polluters in Ghana due to the low share of industry in the total output and the extensive exploitation of hydropower.

The liberalization of agrochemical prices has increased them dramatically, which has depressed the use of fertilizers. Local relieves of chemical burdens are the most important achievements, but the aggregate impact may have remained somewhat marginal due to the low intensity of chemical use in the Ghanaian agriculture.

The trends are distinct as evidenced by the Ghanaian post-1983 structural adjustment program. Although it is conceivable that the poor countries will not abandon the few income-generating sources, nor will they turn back the clock of politico-economic transformation, all the 'unnecessary' devastating pressures on the environment should be subjected to careful surveillance and elimination so as to take a small step toward sustainable development.

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THE HEARTBEAT AND RHYTHM OF LIFE: THE CARDINAL POINTS IN THE SOCIO-CULTURAL CONSTRUCTION OF BUKUSU PERSONHOOD

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INTRODUCTION

The present society of Babukusu has been transformed by virtue of direct contacts with the larger communities first represented by the Swahili and Arab slave traders as well as somali gunrunners and ivory traders (K.N.A. File No. DC/NN/3/1). These early foreigners were later followed by British explorers, missionaries and colonialists. Today, Bukusu society is still undergoing new forms of alterations which are constituted of economic, social, cultural, moral and political delocalizations (For a fuller discussion about the concept of delocalization see Pelto 1973; Poggie and Lynch 1974; Cattell 1989; Kilbride and Kilbride 1990; Kilbride 1992; Nangendo 1994). All these transformations have had negative consequences on the Bukusu belief system and thoughts. Indeed, some of the beliefs have been modified while others have completely been discarded. However, many of the Bukusu traditional beliefs and thoughts that I deal with here are still intact. In fact, a majority of the people in Bukusu society still subscribe to the genre of beliefs which I describe here.

This paper is, therefore, a discourse into the belief system and thoughts of Babukusu. In the paper, I will discuss some beliefs associated with the cardinal points. Then, I will show how on the basis of these beliefs, the cardinal points are variably manipulated in the social and cultural construction of Bukusu personhood. This paper draws its inspiration from Goodale's (1985) work in a Melanesian society. She has argued that the Kaulong of southern West New Britain, Papua New Guinea give meaning to their lives by structuring their own personhood. This structuring is realized by using different ideas "symbolized in pigs, bones, and by teeth, fire, sex and song" (p. 229). These symbols appropriate to the Kaulong the message that personhood "is an achieved, not given, condition of life." This paper will apply this insight to the cardinal points to show the extent to which personhood structuring is carried out in the Bukusu context. Not many researchers in sub-Saharan Africa have focused on how the cardinal points may be implicated in the central construction of personhood. However, some have actually appreciated that social life and the pulses of the entire cosmos are intimately reflected in the individual just as the social life of the individual is a direct reflection of proper order in society and in the universe (Evans-Pritchard 1956; Griaule and Dieterlen 1991; Barley 1989; Lamp 1988).

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INTRODUCTION

The present society of Babukusu has been transformed by virtue of direct contacts with the larger communities first represented by the Swahili and Arab slave traders as well as somali gunrunners and ivory traders (K.N.A. File No. DC/NN/3/1). These early foreigners were later followed by British explorers, missionaries and colonialists. Today, Bukusu society is still undergoing new forms of alterations which are constituted of economic, social, cultural, moral and political delocalizations (For a fuller discussion about the concept of delocalization see Pelto 1973; Poggie and Lynch 1974; Cattell 1989; Kilbride and Kilbride 1990; Kilbride 1992; Nangendo 1994). All these transformations have had negative consequences on the Bukusu belief system and thoughts. Indeed, some of the beliefs have been modified while others have completely been discarded. However, many of the Bukusu traditional beliefs and thoughts that I deal with here are still intact. In fact, a majority of the people in Bukusu society still subscribe to the genre of beliefs which I describe here.

This paper is, therefore, a discourse into the belief system and thoughts of Babukusu. In the paper, I will discuss some beliefs associated with the cardinal points. Then, I will show how on the basis of these beliefs, the cardinal points are variably manipulated in the social and cultural construction of Bukusu personhood. This paper draws its inspiration from Goodale's (1985) work in a Melanesian society. She has argued that the Kaulong of southern West New Britain, Papua New Guinea give meaning to their lives by structuring their own personhood. This structuring is realized by using different ideas "symbolized in pigs, bones, and by teeth, fire, sex and song" (p. 229). These symbols appropriate to the Kaulong the message that personhood "is an achieved, not given, condition of life." This paper will apply this insight to the cardinal points to show the extent to which personhood structuring is carried out in the Bukusu context. Not many researchers in sub-Saharan Africa have focused on how the cardinal points may be implicated in the central construction of personhood. However, some have actually appreciated that social life and the pulses of the entire cosmos are intimately reflected in the individual just as the social life of the individual is a direct reflection of proper order in society and in the universe (Evans-Pritchard 1956; Griaule and Dieterlen 1991; Barley 1989; Lamp 1988).

The major argument of this paper is that during the enactment of certain rituals the cardinal points are used as internal and cultural interpretations of the Bukusu universe. This universe may, and equally may not necessarily, encompass kinship relationships, progeny, humanity, personality and mortality. Nonetheless, this cultural interpretation provides Babukusu with symbolic and historical statements about their own common experience as an ethnically defined entity. I argue that this common Bukusu experience and ethnicity is significantly intensified (Coplan 1987) and made most explicitly and forcefully (Goodale 1985) during the enactment of two important male rituals.

The first is the circumcision ritual, *sikhebo* (plur. *bikhebo*) in which the male initiate, *omusinde* (plur. *basinde*) is given his first identity as a human physical person as well as an individual social self and identity (cf. Turner 1971). It is also a time when the male youth assumes specific normative "social activities that are classed as human, constructive and productive" (Goodale 1985: 241). In the past, an uninitiated male youth could not be allowed to accompany a party of warriors on enemy raids and, today the former prestige associated with warriorhood has been rendered innocuous. The same uninitiated youth could not, and still cannot, speak in a gathering of elders because the principle of seniority is still "closely related to the power of the word...verbal power is decisive. It reinforces status. The young men have to listen. They are not yet allowed to speak in any formal public discussions. The old do the talking" (Rosenmayr 1988: 28). Today, as in the past, the uninitiated youth is still regarded as a ward of society who has yet to graduate to the more responsible plane of being its guardian and protector (Were 1977-78). Lastly, such an unitiated youth cannot be buried unless he has actually been circumcised. Burying an uncircumcised man brings chaos and pollution in Bukusu the society and the entire cosmos.

The second ceremony is the elaborate *kumuse* (plur. *kimise*) mortuary ritual for elderly male individuals "who, over their lifetime, have most clearly achieved a high degree of humanity" (Goodale 1985: 229) and, most "significantly, personhood" (Nangendo 1994: 141). Such personhood is normatively acquired through the lifelong process of ageing and being generative enough to have a circumcised paternal grandson at the time of passing. In other words, just as Goodale has argued for the Kaulong, I suggest that personhood in Bukusu society is not bestowed at birth. It is something which has to be socially and culturally achieved or arrived at. Equally, and as with every other aspiration in life, an individual can ultimately fail to achieve this personhood at the time of passing (Menkiti 1984; Nangendo 1994).

This mortuary ritual has two significant cultural functions. First, it is a symbolic celebration of life because the ritual is imbued with many concepts and symbolism of life and rebirth (Evans-Pritchard 1956; Metcalf and Huntington 1991; Foster 1990). Second, it is a symbolic restoration of the broken webs of social relationships and networks (Geetz 1973) necessitated by the passing of the

elderly "men of renown" (Weiner 1976) in Bukusu society. The two functions revolve around the belief that death being "inevitable, unpredictable, impersonal and autonomous" (Crapanzano 1980: 44) as well as being the ultimate loss (Abu-Lughod 1985, 1986) destroys the last identity of a physical person by constantly and negatively interfering with human existence and future progeny. Also, death leads to the loss of the social self and identity with commensurate activities Babukusu recognize as human, constructive and productive. This is because all human activities need an intact, animating soul (which I loosely gloss here as *kumwoyo*), breath (loosely glossed as *kumuya*) and shadow (*sisinini*) in order for the rest of the human body (bones and flesh) to have vitality and cohesion and, therefore, life (*bulamu*).

Unfortunately, after death and subsequent entombment the flesh of the deceased decomposes leaving behind only white bare bones. These bones are inanimate and, therefore, incapable of creating and maintaining any meaningful webs of human social relationships. This action creates a problem in the Bukusu progeny and kinship bonds. These two have to be maintained harmoniously by living persons in daily encounters, but specifically, through individual, family, kinship, lineage and affine squabbles, altercations, tears, laughter and, sometimes even, indulging in all sorts of orgies. But death makes all these human expressive emotions impossible, or at least, these are masked from human vision, cognition and mediation. The expressive purpose of the *kumuse* mortuary ritual is, thus, to make the soul of the deceased reincarnate into one of its descendants so that Bukusu human progeny continues to be propagated and at the same time the broken relationships are reestablished. Ironically, these same restored relationships are formally severed two or more years later during the enactment of yet another, but final, mortuary ritual for the deceased known as "cutting the ropes" (literally, *khukhala kimikoye*). Although in this context the "ropes" stand as a metaphor for lasting human relationships which even death is not supposed to sever, it is normally imperative that the ritual is carried out so that the deceased is finally given the definitive status of a ghost (Evans-Pritchard 1956).

Circumcision and *kumuse* rituals, therefore, provide us with a perfect medium for properly apprehending the cultural symbolism of Bukusu society through time. This is mainly because during the performance of these two festivals the cardinal points assume an unparallel significance. Each time a particular cardinal point is faced by men or women in Bukusu society different value-laden symbols are invoked and encoded. These are symbols which have been reproduced daily and maintained continually over a long period of time. The same symbols today implicate the notion that the cardinal points are the heartbeat and rhythm of life and, therefore, mortality in Bukusu society. In fact, each time a particular direction is faced by men or women during the enactment of these two rituals, that cardinal point interchangeably becomes a symbolic direction of either birth and rebirth or life or death. Also, these cardinal points together with the enactment of

these two male transition rituals are used to drum out the cultural logic behind gender differences in Bukusu society. Central to this logic, is the notion that only males are capable of achieving complete personhood while women are incapable of such a complete transformation and, hence, of truly social adulthood (J. Comaroff and J.L. Comaroff 1990). However, not all males can actually acquire complete personhood at the time of passing. It is only elderly males, who have the *kumuse* mortuary performed fro them, who can make this complete transformation. The rest of the men, like all women and children, still remain jural and physical minors only to be bestowed with token personhood, by attending mortuary rituals of elderly males. Significantly, these two male initiation rituals effects a transition to a state of being which "betoken[s] a fully adult role within the community" (Comaroff 1985: 85).

1. The Setting

This research was carried out among Babukusu, subgroup of the larger Luyia supra community. These people live predominantly in Bungoma and Trans Nzoia Districts, Western Kenya. They are also to be found in the other districts in the Republic of Kenya as well as in the Bugishu and Sebei Districts of Uganda. Similarly, numerous Bukusu settlements are present in Yembe and Cheptui Divisions of Mbale District in Uganda. Babukusu have a distinct language, *Lubukusu*, which is related to the other dialectical branches that the Abaluyia people speak. At the time of contact with British colonialists, Babukusu resided in nucleated village-forts, *chingoba* (sing. *lukoba*) which were the common meeting amphitheatre where rituals were enacted, disputes settled and within which daily interaction took place (Nangendo 1994). Life in these village-forts was closely interwoven and localised (Cattell 1989), although, each fort was linked to others through a system of patrilineal clans, *chikholo* (sing. *ekholo*).

These patrilineal clans were, and still are, the axis of the Bukusu kinship network. Also, different rites brought members of various village-forts together, for instance, to celebrate the circumcision of their males. On the other hand, "circumcision brothers" (Barley 1983; 1986) formed an age-set of warriors who defended these village-forts in times of external threats. Lastly, social contacts such as visits, marriage transactions, squabbles and funerals always brought together members of each fort to share in each other's joys and griefs. The political formation in these forts was very acephalous, without an elaborate sophisticated centralised and military structure (Wesonga 1985). Indeed, seniority and gerontocracy were the major building blocks of the political as well as social organisation of Babukusu in these village-forts during the precolonial times.

2. The Cardinal Points in the Bukusu Belief System

2.1 The Cardinal East

In *Lubukusu*, the cardinal east is usually known as *ebukwe wanyanga* and *nabwekwe likwe*. It is construed that all the motive power required to provide social order in the Bukusu universe emanates in the east (Nangendo 1994). It is also in this direction that one can acknowledge the existence of *Wele Khakaba*, the Supreme Divinity of Babukusu. This is, perhaps, the reason why in the agrarian past Babukusu used to pray in the morning by spitting in the general direction of the rising sun (Wagner 1970). This action implicates the notion that the rising was, and still is, in some way symbolically associated with *Wele Khakaba*. It is also in the east that *Wele Khakaba* started the creation of the universe and human beings (Nangendo 1994). The east is, therefore, the source of good health, blessings, milk, rebirth and fertility (Wagner 1970, 1991). Lastly, the cardinal east is the direction of the original germ (Griaule and Dieterlen 1991) which provided the primordial Bukusu life and human being. Similarly, it is in the east that human (collective) and individual progeny as well as personhood can be found.

These beliefs are constantly given overt ritual expression during the enactment of circumcision rituals. For instance, during circumcision there is a public moon dance known as *khuminya* which requires the procession of singers as well as the initiate (*omusinde* plur. *basinde*) to dance while rotating from east to west or right to left. It is construed that the *khuminya* rotation reflects the direction which Babukusu themselves believe *Wele Khakaba* used when creating the Bukusu universe. Specifically, in the Bukusu concept of the metaphysics the act of creation took an anti-clockwise direction. That is to say, creation started from right (east, life and patriliny) to the left (west, death and matriliny) and it described a complete loop, through the cardinal north, culminating once again in the east (Nangendo 1994). Babukusu believe that after this the Supreme being erected one pole of *kumwandanda* and another one of *kumukhonge* trees in the east. These are trees which are thought to bring prosperity, permanency and wealth to Babukusu.

In this context, the *khuminya* anti-clockwise rotation is a festival of life (Barley 1989) not only for the initiate but also for the entire society. It is regarded as a festival of life for the initiate because it is strongly believed that the initiate is going through the process of recreation and, finally, rebirth (cf. Towles 1993). The process of rebirth usually takes place early in the morning of the circumcision day. This is the time when the initiate, facing the cardinal west, 'meets' the knife, *lukembe* (plur. *chingembe*), of the circumciser, *omukhebi* (plur. *bakhebi*), on the courtyard (*luyia*) of a paternal kin. The encounter of the circumciser's knife with the penis of an initiate is believed to be a ritualized firing and biting. As such,

Babukusu constantly describe the circumcision ritual as being "*embalu kumulilo, eluma busa seyira ta*", literally, circumcision is fire, it only bites it does not kill (Nangendo 1994). The symbolic implication here is that the bite, symbolised by the knife, reconfigures the physical part (body and flesh) as well as the spiritual essence (heart, soul, mind, shadow and breath) of the initiate so that these constituent parts become attuned to the pulses of the cosmos. This reconfiguration enables the initiate to ascend on to the first ring on the ladder of personhood and at the same time it is the one used by Babukusu to structure and construct nascent personhood for their males. Conversely, the circumciser's knife is a reaffirmation of the antiquity of Bukusu circumcision traditions and experiences which are represented by the handle of the circumciser's knife. This handle is always fashioned from the roots of a tree known as *kumukimila* which symbolizes common Bukusu experiences, traditions and ethnicity.

At the same time the procession of *khuminya* is symbolically associated with the bright Evening Star, *ya Sulwe* in the west as well as the bright Morning Star, also known as *ya Sulwe*, in the east. According to Babukusu, this is one and the same star and that is why they have given it the same name. Specifically, the procession of *khuminya* cannot start until the Evening Star has risen in the west. Also, an initiate may only be taken to the river for mud smearing (*khulonga*) when *ya Sulwe* has risen in the east. This action implicates one salient notion in the belief system of Babukusu. All human life originated on *ya Sulwe* when *Wele Khakaba* was creating the Bukusu universe. In fact, if *ya sulwe* fails to rise in the morning and evening the entire cosmos will be plunged into darkness and subsequently become extinct. Therefore, it is *ya Sulwe*, also known as the chief of all stars, which provides the pulse (Adams III 1986) and motive power necessary for sustaining celestial order as well as social life in Bukusu society. The most significant aspect of this notion, however, concerns the actual creation of human beings. In the local cosmology, the Supreme Divinity is believed to have taken cosmic dust from *ya Sulwe*, mixed it with sublunary clay (*liloba*) from the quarry (*esiumbwa*) in order to mould the primordial human life (Nangendo 1994). This notion of human beings having been created from the earth, clay, soil is found in many other societies in and outside Africa (See, for example, Metcalf and Huntington 1991; McHugh 1989; Mercier 1984). However, in the Bukusu belief system the cosmic dust is the one which constitutes for a person the soul (*kumwoyo*), breath (*kumuya*) and shadow (*sisinini*). These three provide a living person with a spiritual, inner and moral self. They make a person to feel, think and make conscious decisions that ultimately determines that person's destiny (Gyekye 1984). The earthy clay, on the other hand, makes up the bones and flesh of a person but requires the spiritual fibre in order for it to be animated. For Babukusu these constituent parts are used as appropriate measures in their reconstruction of a living human being (*omundu*). Without these constituents a person is regarded as not being endowed with the powers of procreation, fertility and personhood.

The cardinal east also plays a significant role during the performance of *kumuse* mortuary ritual and in this rite it is women who become the focus of ritual concentration. This ritual usually takes place three days after the entombment of elderly males in Bukusu society. It is performed by a male person known as *oswala kumuse* (plur. *baswala kimise*) who is regarded as being the overall and supreme moral leader in Bukusu society. During this ritual, the performer is required to walk up and down in front of the gathered mourners talking about a variety of subjects. He talks about the Bukusu Supreme Divinity, creation, ancestors, cultural traditions, history, circumcision, death and bereavement (Wanjala 1985; Nangendo 1994). The whole atmosphere during this occasion may be described as sombre. Late-cominig mourners are prohibited on the grave until the ceremony is over. This is because if they visit the grave they maye be overcome by grief and start hysterical sobbing or stylized high-pitched shrieking (Geetz 1960; Abu-Lughod 1985; 1986). In an entirely different context, Geetz has suggested that tears may make the spirit of the deceased reluctant to leave the house. I suggest a similar explanation for Babukusu but I also add that *Oswala Kumuse* represents the gathering abd, therefore, the mourbing of the ancestors and the Supreme being. In Bukusu society it is believed that supernatural beings may not mourn and grief at the same with human beings.

The ritual is enacted for the deceased so that he can find his true orientation to *emakombe*, the place of the dead. This is because Babukusu believe that the deceased, like the living, has to pass through successive stages before reaching the final abode (*emakombe*). And, the *kumuse* mortuary ritual is the first of these successive transitions and it is the one which bestows final personhood on a human being. Although this rite is actually a festival of death (Barley 1989), symbolically it is also used to celebrate life which is believed to occur through the process of reincarnation. Babukusu, therefore, believe that by carrying out this mortuary ritual it is possible to convert death into life (Foster 1990). This is because every death of elderly men plunges each person, but especially the child(ren) and widow(s) of the deceased, in Bukusu society, into a state of ritual death. The only person who cannot be affected by death is the performer of the *kumuse* ritual. This is because Bukusu traditions forbids him to view the body when it is laid out in case he is later on chosen as the chief performer of the ritual. The rest of the people who wail and keen over the cadaver become ritually polluted. They breathe in the polluted air and smell of death, they can still feel the presence of death lurking around, and consequently, everybody becomes an active participant in the death. Unluckily, this makes every person in Bukusu society a social and psychological amputee (Metcalf and Huntington 1991). Widows and children of the deceased as well as all women in this society are put in a very precarious position because it is feared that unless ritual precautions are taken they can be 'disfigured' by a ritual disease known as *bukhuchakali* (Nangendo 1994). It is feared that this disease will interfere with their procreation and generative

powers and, eventually, personhood. To prevent this from happening, they have to sit facing the cardinal east during the enactment of this ritual. The widow(s) of the deceased usually dress in white when this ritual is in session. This is the colour which Babukusu strongly associate with purity and the Supreme Being as well as the colour of death and pollution (cf. Nangendo 1994). Therefore, dressed in white and facing the cardinal east, it is constructed that the widow(s) can regain the powers of rebirth so that proper order is again restored in the stellar world as well as on earth. The rising sun shining upon the faces of these women bestows these new powers. Men, on the other hand, sit facing the cardinal west where the sun and *ya Sulwe* will plunge everything into darkness, taking illness and death away and, in the process, cleansing the society.

2.2 The Cardinal West

Among Babukusu the cardinal west is also known by two terms and these are *Mumbo wa Nambweke* and *Mumbo esilotia Nyanga*. It is construed that all the forces in the Bukusu universe which signify dangers, enmities and conflicts flow from the west. Consequently, the cardinal west is the direction Babukusu most auspiciously link to malignant ailments, evil magic bewitchment, misfortune, enemy attacks and physical death (Wagner 1970; Evans-Pritchard 1956; Nangendo 1994).

However, it is also believed that the cardinal west is the direction of male fertility, procreation as well as symbolic death and rebirth for men in Bukusu society. Thus, if a Bukusu male faces west he goes through the process of ritual death which *Wele Khakaba* later commutes to ritual rebirth. Primarily, this rebirth is brought about by the mediation of four key symbols constituted of grasses, plants, water, chyme and meat. For instance, on the third morning before the circumcision operation is carried out, the male initiate is required to carry water in a pot from the river, stream or well. This rite is called *khuchukhila* (literally, pouring) and it thus describes how the initiate pours the water into another pot containing 'fried beer' (*kamalwa kamakhalange*). This other pot would also have a ring made out of *lukhafwa*, quack, grass (*Agropyron repens*) tied round its neck. After pouring this water, the initiate stands facing the cardinal west and a special circumcision chant called *sioyayo* is sung by the gathered people.

In the Bukusu belief system, the pot as well as water and *lukhafwa* grass symbolise many things at the same time (Turner 1962). The water, for example, is considered to contain all the beneficent ancestors, *bakuka (*sing. *omukuka)* or *basambwa (*sing. *omusambwa*) of the initiate who are carried from the source of the river to the homestead of the initiate. These ancestors provide valour and blessings to the initiate during circumcision. More significantly, these benign ancestors accord the necessary protection against the destructive powers of evil

spirits, *bamakombe* (sing. *simakombe)* or *bisieno* (sing. *sisieno*) which can destroy the future generativity and personhood of a man.

The pot and the water carried from the river are primarily associated with the origin of sunshine which symbolises fertility and prosperity on earth. In one myth, a girl who had refused all the young men of her village is carried to the sky by a rope. While there she meets with the sun which is described as a very powerful, wealthy chief and looks very red and shiny like lightning. The girl also refuses all the advances for marriage from the sun until it presents her with its rays and that is the time the girl agrees to marry the sun. According to Wagner (1991: 31), "the sun-rays were given to her shut up in a pot, which she kept in her hut without opening it and thus releasing the rays." The tale goes on to show that after giving birth to three sons she later on paid a visit on earth and stayed for three days with her parents. And on her return back to the sky, standing at its entrance, she opened the pot containing the rays and poured them on earth. These rays contained many cows and all of them landed on her father's homestead. Therefore, implicit in this tale is the notion that the male initiate actually reenacts the action of this mythical girl and it is actually construed that by bringing the benign ancestors from the river to the homestead, the initiate and his lineage will be endowed with prosperity and blessings.

This myth links the social and moral universes of Babukusu directly to creation at the dawn of time. This is because the girl adamanantly refuses all men on earth but marries the sun; a symbol of the Supreme Being in the cosmological system of the people. Implicitly (and even explicitly) embedded in this system, is the notion that cattle are essential commodities because they mediate in all the transactions of these people (Cf. J. and J.L. Comaroff 1990). Morally as well as culturally, a man has to provide the agnates of the girl with bride wealth in the form of the customary thirteen head of cattle. Socially, the girl is required to reside with the agnates of her husband where she provide them with both male and female children.

The significance of *lukhwafwa* is overtly expressed in the saying *osaala wonga nga lukhafwa ne lwalama lwambukha enyancha* (literally, your procreation should propagate and disperse in the same manner that *lukhafwa* grass crept until it crossed a lake). This saying connotes that *lukhafwa* grass also has the power of symbolically endowing the initiate with procreation and prosperity. Culturally, this prosperity should be used expressively to create webs of relationships and exchange networks which are significant in the lifetime of any Bukusu man. *Lukhafwa* grass is also a symbol of the supremacy of patriliny (east, males and up) over matriliny (west, females and down). This is because Bukusu females are regarded as being only transient in their patrilineal homesteads by virtue of the exogamous marriage and patrilocal residence patterns of Babukusu. Men must remain in their natal homesteads as permanent custodians much the way *lukhafwa* grass is an immutable accessory of every Bukusu homestead. In this

sense, *lukhafwa* grass is a symbol of all the normative responsibilities which a man in his lifetime must assume in the whole of Bukusu society. These normative duties include giving due respect to parents, all married women and old people. Also, a circumcised man should provide emotional, material and other support to the elderly, widows, children and other helpless people in society. According to Babukusu, these responsibilities are the ones which are conceived as being human, constructive and productive. Lastly, in his lifetime he should always be grateful to the Supreme Being whether he has only boys or girls. This is because children are a gift from the Supreme Being and it is through children that a man's progeny is propagated, personhood achieved and social relationships maintained.

Chyme (literally, *buse*) and meat find their cultural significance on the last day before the circumcision operation. On this day, tradition requires that the maternal and paternal kin of the initiate should slaughter livestock. In the late afternoon, the maternal bullock is killed. And as the initiate stands facing the cardinal west, the mother's father (*kuka*) or mother's brother (*khocha*) liberally smears the chest, stomach, hands, legs and hair of the initiate with the undigested greenish chyme. Next a piece of special meat called *luliki* is also liberally smeared with the chyme before the meat is hung round the neck of the initiate. This is followed by the singing of the special *sioyayo* circumcision chant.

When the initiate returns to his father's homestead the maternal meat is removed and it is later on given to the mother's father (*kukhu*) to consume. Late in the evening of the same day, facing the cardinal west, the initiate is again smeared with *buse* from the stomach of a cow slaughtered by his father or father's father (*kuka*). A piece of meat known as *lisombo* is again hung round the neck of the initiate. The *sioyayo* song is again sung by the gathering. This paternal meat is symbolically associated with the future marriage and wealth of the initiate. The chyme, on its part, is meant to be an invitation to the good ancestors to come and join in the circumcision celebrations and in the process protect the initiate from the inauspicious ancestors. Also, the smell of this chyme bestows on to the initiate the same smell that a new-born child and a fresh corpse have. This is because a new-born child and a recently dead person are also called *basinde*; the same term which refers to initiates (Wagner 1970).

After being circumcised, the male youth, now known as *omufulu*, is led into the house of his father or father's father. This initiate is required to enter the house backwards and never forwards. In addition to this, some clans which teach secret and esoteric knowledge to their initiates require that their initiates have to crawl backwards into the house between the legs of a circumcised male. This house becomes the seclusion lodge of the youth and is known as *likombe* or *mwikombe*. Informants imputed two specific meanings to this term. First, the word is derive from the verb *khukhwikomba* which simply means desiring or yearning for something. In this context, *omufulu* can never revert back to his former non-productive, non-constructive childish behaviours and activities. Indeed the youth

is sometimes described as 'having refused his mother's clothes' when he goes through circumcision. This mother's cloth is normally the prepuce of the initiate's penis. Therefore, the boy can only desire for the old lifestyle with nostalgia but the structural change of circumcision cannot be reversed. Second, the word *mwikombe* has the same connotations as *emakombe*, the land of the ancestors, and which has been described as the place of dying or death (Wagner 1991; Turner 1962). Therefore, in *mwikombe* the male youth (*omufulu*) is construed to be ritually buried for sometime until the coming out ceremony, *khukhwiyalula*, is performed. Indeed, while in seclusion he cannot visit the house of any his relatives and accept food; he cannot talk back to his parents who are anyway forbidden to enter the seclusion lodge; he cannot greet other people using his hands and the only form of greeting allowed is that the initiate should be hit on his shinbones with a stick by other people.

However, the initiate also has to face west during circumcision in order that he undergoes the process of ritual rebirth into a new life. This is what Turner (1962: 99) has described as:

> lunar symbolism (for the same moon waxes and wanes), by snake symbolism (for the snakes appears to die, but only to shed its old skin and appear in a new one), by bear symbolism (for the bear dies in autumn and is reborn in spring), by nakedness (which is at once the mark of a newborn infant and a corpse prepared for burial).

2.3 The Cardinal North and South

Babukusu refer to the cardinal south as *siafubo* or *mufubo* while the cardinal north is known as *Wa wa Naswa*. The cardinal south is not strongly associated with a systematic genre of beliefs. It is simply the destination of all rivers, streams, ants and all dirty matters in society. The cardinal north, on the other hand, is believed to be the source of all rivers, streams and ants. Also, the cardinal north is believed to be the residence, but not necessarily the permanent abode, *emakombe*, of ancestors. This is because "the country of the dead, too, is said to be not only below the earth but also in the west" (Wagner 1991: 33).

Beliefs related to the cardinal north, however, informs us of how a snake is primarily used to connect death to circumcision, to spirits (human and non-human), to the earth, and to the afterworld. A popular local tale suggests the presence of a monstrous serpent whose pastime was to devour people, goats, sheep and cattle. Each time it did this, it vanished towards the cardinal north, into the caves of Mt. Elgon (locally known as *Lukulu lwa Masaba,* the Mountain of Masaba). In the folklore, this serpent is known as the "Snake of Yabebe" (*Endemu Yabebe* or *Yabebe Khururwe*). This serpent was very big and, also, it had one horn in the middle of its forehead. Each time the serpent appeared people could only

flee in helpless terror. One day, however, a young uncircumcised man called Mango declared that he was going to kill the serpent. People taunted him saying there was no way a person who was not circumcised could ever hope to defeat, let alone kill, the monstrous serpent. But kill it, he did. According to the tale, Mango went to the river early in the morning stark naked. He washed the whole of his body and covered himself with mud from foot to toe accept his eyes and the genitals. He then waited patiently for the serpent to appear. And, when it did, he killed it because the mud had masked his body odour. The Sabaot, a neighbouring ethnic group, dared him to another ordeal. This was for Mango to face the circumcision knife (*lukembe*) if he was man enough. Mango took up the challenge. During the operation he showed complete fortitude betraying no signs of fear not even involuntarily blinking his eyes. The tale goes on to state that just before the serpent died, it imparted (to the hyena, one is told) the words which now constitute the special circumcision song, *sioyayo*, which I have already severally alluded to. The words of this song have never been, and cannot be, altered in form, content, and meaning. Also, this song should never be sung jokingly unless a person is to be physically or symbolically circumcised. Indeed, the song should not be sung haphazardly outside circumcision contexts. In fact, it is the only song which is sung all the way from the river to the homestead.

This serpent has generated complex symbolism as well as ritual precautions and injunctions in Bukusu circumcisions and death rites. For instance, early in the morning when *ya Sulwe* has risen in the east, the initiate is taken to the river or a swampy place so that he is smeared (*khulonga*) with mud. This process is known as *khucha esitosi*, *sietosi* or *eluchi* (going to a swampy place or river). At this place he is stripped naked and partially emersed in water. He is then ordered to wash smegma praeptii (*chifuniu*) from his penis. The mud smearing starts and literally, every part of his body except the eyes and genitals is smeared with a layer of sticky dark-bluish mud (*liloba*). On top of his head, a lump of clay is placed forming a crest and a blade of special grass stalk known as *kwaututu* is inserted in.

All the events described above are directly relevant to the monster snake and by implication to death and rebirth in Bukusu society. First, the mud smearing transforms the human body of the initiate into a form which is a symbol of the monster serpent. And, it is this unrecognisable non-human, but snake-like form, which meets the circumciser and his knife; a symbol of Mango meeting the snake. And in the process, the snake-like form is again transformed into a human being and thus the transition from childhood to manhood is complete symbolizing the triumph of ritual birth over death. This transformation stand for the process of death and rebirth for the initiate and it is effected through the shedding of the mother's cloth, that is the prepuce, on the courtyard (*luyia*) of a paternal kin.

The blade of grass together with the naked initiate are associated with many ritual beliefs and symbols among Babukusu. First, the blade of grass is a symbol

of the horn which was in the middle of the forehead of the serpent monster which Mango killed in the local myth. It is also believed that the spirit of the serpent monster today lives at the place where initiates are smeared with the mud. And it is the spirit of this serpent which causes the special grass to grow in the mud smearing places because this grass can never be found in other places. In the local belief system it is also deemed that the spirit of the this monster serpent causes the mud smearing places to start 'bubbling and rising up like an anthill' (literally, *khututuba nga liresi*). This bubbling and rising up was similarly likened to the way flour, water and yeast usually mix and percolate during the brewing process of traditional *busaa*. According to elderly informants, the mud smearing places start bubbling and rising up from the month of June and subsides by December of every circumcision year. A clear sign that circumcision is going to be a success is for one to visit the mud smearing places early in the morning. Apart from the bubbling and rising up of *sietosi*, one would also encounter a snake locally known as *ekhilakhima* and bird called *ng'oli*. Babukusu conclude that this snake symbolises the one Mango killed and it is today the guardian of all the sources of rivers in Bukusu country. Second, *kwaututu* is a symbol of the traditional headgear which Bukusu warriors (cf. Wesonga 1985) wore when they were on the warpath in the past. This headgear is locally known as *ekutwa ye khusera* or *ekutwa ye lie* (literally, the headgear of raiding or war). In this particular ritual field, therefore, it indicates that the novice is on the threshold of making a transition to the age grade of warriors.

Third, the initiate himself is a symbol of a miniature traditional house known as *namwima* which has as height varying between 0.6 and 2.13 metres. It has a centre post, *enjeko*, where Babukusu normally offer sacrifices to the ancestors as well as to *Wele Khakaba*. Therefore, the blade of grass is fixed on the head of the initiate to show that a ritual house, which belongs to the ancestors and the Supreme Being, has been completed. Fourth, the naked initiate and the blade of grass on his head are held to represent a thin and short rod which protrudes from all grass-thatched houses built by Bukusu males. This rod is known as *lusuli* and it serves as a symbol of the owner of the home. Three days after a man dies, this shaft is ritually removed from the house by his wife and this action signifies the passing of the male owner of the house. This is the only time that a woman is allowed to climb a house (Wagner 1970; Wandibba 1972). In this ritual field, however, *kwaututu* on the head of the initiate signifies the fact that the initiate is the head of the homestead. And as the head, he should build a house for himself and fix the rod (*lusuli*) on top of the house. The blade of grass and the nakedness of the initiate are symbols of the ritual death the initiate is thought to be undergoing. Indeed, all the phases of the circumcision rites are abundant with the 'imagery of death', to use Turner's apt phrase. For instance, the code of silence, the washing and smearing of mud, putting the blade of grass on the head of the

initiate, and sometimes, the initiate holding a switch (*kumusuni*) from the *kumulaa* tree across his shoulders while being circumcised all show the imagery of death.

The cardinal north and south have more ritual significance during the performance of *kumuse* than in the circumcision ceremonies. To a great majority of Babukusu, the *kumuse* ritual addresses directly the specific issues of reincarnation; of converting death into life and of bestowing personhood. This reincarnation comes directly from *Wele Khakaba* to the ancestral spirits, and through the mediation of *oswala kumuse* to human beings. For Babukusu only certain human beings, such as *baswala kimise*, have close ties with the supernatural world. And, such individuals have been endowed with supernatural powers of effecting the process of reincarnation. These supernatural powers emanate in the cardinal north where some of the Bukusu ancestors, such as Maina wa Nalukale, who are believed not to have died, still reside in the caves of Mt. Elgon. It is, therefore, construed that when *oswala kumuse* begins his oration he has to face the cardinal north. This is in order that the supernatural intervention of the ancestors can fruitfully effect the success of the process of reincarnation from *Wele Khakaba*.

Facing the cardinal north, women will be to his left (west, death), the men will be to his right (east, life, the Supreme Being) and his back will be to the south. In his left hand, he carries a ritual stick (*esimbo ekhendie*) and a ritual flywhisk (*kumukhinga*) in his right hand. His formal attire consists of a tunic, shorts, a shirt and head-dress. The tunic, known as *ekutusi*, is made of a full-length hide which is folded over and sewn into one corner. This fold creates an oval space for the head and left hand. The tunic is slipped over the right shoulder with the right hand outside the sewn fold. The skin of this tunic is made from an animal locally known as *khakutusi* which Babukusu believe can live forever if not killed by human beings and its other hostile enemies. This full-length tunic could also be fashioned from the skin of young goats, sheep and calves. In this case the cloak is called *esumbati*. However, the choice of *khakutusi* animal symbolically recalls the primordial human immortality in Bukusu society which is contained in one creation myth. According to this myth, Babukusu were originally meant to be immortal and have eternal life. However, "man became mortal only when he was cursed by a chameleon after he had repeatedly refused its request for a share of his food" (Wagner 1991: 43).

The headdress, *ekutwa*, is typically decorated with three elements. Palms (*kamakhendu*) which Babukusu believe are symbols of two salient aspects in their society. First, the leaves are a symbol of human fertility, generativity and procreation. Second, the leaves represent everlasting relationships, permanency and endurance. However, all these salient aspects are constantly interrupted, indeed, terminated, by the death of any elderly male person. The second element consists of blades from a grass called *nabuyeywe* and which is a symbol of both death and rebirth. The third element is made up of a series of white cowrie-shells

(*chisimbi*) which are ornately decorated giving the headdress a final conical shape. The white colour of the cowrie-shells is an attribute of *Wele Khakaba* and, notably, the presumed residence of this Supreme Deity. According to Wagner (1970; 1991), Babukusu believe that *Wele Khakaba* lives in a place which is very white and is always bright and luminous; "a place of everlasting scintillation. God created it like lightning" (Wagner 1991: 28). However, in this mortuary context, the white cowrie-shells stands for the path that the deceased has to take back to the Supreme deity. Symbolically, whiteness and, therefore, purity bestows to the deceased a safe passage to the land of the ancestors and the Supreme Divinity (Nangendo 1994).

The seating arrangements during the *kumuse* mortuary ritual normally leaves an open space which separates the women from men. This open space is also known as *kumuse* and its is where *oswala kumuse* paces, sometimes trots, in a straight line back and forth from the south to the north for about three hours. And it is this *kumuse* which, as a symbolic path, is believed to orient and take the deceased *emakombe*, the land of the ancestors. It is culturally and ritually imperative that within this period of time a clear and straight path is visible to the human eye. Also, it is imperative that at the end of this path, *oswala kumuse* turns in a clockwise direction, that is, right to left. This clockwise rotation is very significant in the Bukusu socio-cultural construction of personhood. Specifically, Babukusu believe that *oswala kumuse* is a miniature model of the universe (See instance Griaule and Dieterlen 1991 explanation for the Dogon). Therefore, all his actions and words during the duration of the enactment of this mortuary ritual should "provide the motive power which animates the whole" (Griaule and Dieterlen 1991) universe, its cosmic order and rhythms. Specifically, his movements should reverse death which has occurred in society and in the process effect the process of reincarnation. The reversal of death is thought to result in the clockwise direction executed by *oswala kumuse* in this ritual. In fact, each footstep made in the path automatically becomes a 'heartbeat and rhythm of life' as it equally resounds "with hollow finality of death" (Metcalf and Huntington 1991: 66-67). Therefore, if the right foot is the one which stepped in the path first he has to step out of the path with the left one. This action is culturally thought to complete the full cycle of reversing death in society.

The signification of this ritual is that it is the only one which directly endows full personhood to male individuals and indirectly women in to the entire Bukusu society. In this society full personhood is primarily achieved in "direct proportion as one participates in communal life through the discharge of the various obligations defined by one's stations" (Menkiti 1984: 174). However, not every Bukusu male is usually honoured with this mortuary ritual. The ritual is meant for males from specific clans. Most significantly, it is conducted only for elderly males who have lived to see their paternal male grandchildren circumcised. The ritual should never be performed for the childless males at the time of their

passing. This cultural and ritual equation of generativity with this mortuary ritual states a lot about how the issue of who a human person actually is and the related concept of personhood in Bukusu society. For Babukusu a human person is constituted of the physical, material, spiritual and invisible parts.

According to the Bukusu theory of conception, the father provides the soul, breath, shadow as well as all the physical features of the child while the mother only bears the child (Wagner 1970. As I have already argued above, the Supreme Being took cosmic dust and sublunary clay to mould the first human life - a man. This cosmic dust is the one which constitutes the soul, breath, and shadow---that is, the spiritual self. The clay, on the other hand, makes up the bones and flesh or the physical component. In Bukusu society it is believed that a man and woman, as human beings, are made up of the same physical and spiritual components which they get at birth from their father (Nangendo 1994). However, since these physical and spiritual parts derive from the males, a woman in Bukusu society is never described as being a person. The term for a person is *omundu* and is only used to refer to men. According to Menkiti (1984: 172), the term *omundu* includes "an idea of excellence, of plenitude and maturity." Therefore, Babukusu strongly believe that women do not possess excellence and maturity. The term which refers to a woman is *omukhasi*, a generic name (term) meaning a woman and it encapsulates a woman's genderhood. Therefore, the genderhood of woman does not necessarily translate into personhood for a woman.

3. Discussion and Conclusion

The Bukusu theory of conception is used by the people to apprehend and culturally segregate their social universe into male and female domains with clearly defined rules, rights and duties. The most significant cultural rule spelled out, however, is that in Bukusu society women, like all children and childless males, are not yet persons because they are jural minors. Therefore, circumcision and *kumuse* rituals are performed on their behalf by men. Women may not be circumcised and they may not be circumcisers although in local Bukusu beliefs the first circumciser was a woman. Similarly, women may not have *kumuse* ritual performed for them neither may they perform this ritual. This is because these two rituals should only be undertaken by, and on behalf of, those human beings the Bukusu society defines as being persons. Also, although these two rituals are open and public they, nevertheless, belong to the male domain (J. and J.L. Comaroff 1990).

The theory of conception of Babukusu contrasts very sharply with those of the other ethnic groups in Africa. For instance, among the Lese of Ituri forest, Zaire, the theory is based on a binary opposition of the red and white colours. Consequently, the white aspects of a child, which includes the bones, bone

marrow and brain, are all attributed to the father's semen, *fisi*. On the other hand, the red aspects of a child, constituted of the organs and blood, are attributed to the mother's menstrual flow which is also conceptualized as women's semen, *fisi* (Grinker 1990). Bagisu of Uganda have an analogous conception theory but theirs is based on the process of fermentation. To them, procreation occurs when "the 'white blood' (semen) of a man mixes together with the 'red blood' (placental) of a woman to form a child".

Babukusu believe that only males can achieve ultimate personhood. This personhood normally begins to accumulate in life in the bodies (J. Comaroff 1985) of males from the circumcision period onwards. And as the males age, become generative, and in the process have a circumcised paternal grandson at the time of passing, the *kumuse* ritual is performed. This implies that it is only through the existence of a paternal male grandson, the process of dying and the medium of death that an individual's own personhood is structured. Although individual personhood structuring takes place within the social universe of a mortuary festival, Babukusu feel this personhood comes directly from the cosmos. Specifically, *Wele Khakaba* provides this personhood to the ancestors and, finally, *Oswala kumuse* imparts it to a deceased elderly male. This is the reason why the presence of *Oswala Kumuse* and his words are highly valued, they are imbued with great ritual efficacy and potency as well as sometimes also greatly feared. The audience of *Oswala Kumuse* does not include the gathered mourners only but it is also made up of a non-human audience of the ancestors and *Wele Khakaba*. Therefore during the performance of this mortuary ritual there is only "one narrative, one voice, one stream of action to which everyone's attention [is] directed" (Volkman 1990: 106). As he chants and walks up and down, occasionally pausing to spit or pose a question, everyone is expected to be attentive. Culturally, during the entire performance of this ritual no one should sleep, snore, sneeze, talk and laugh. His gift of speech and words sounds highly esoteric precisely at the time he communicates with the spirit world, his non-human audience (cf. Volkman 1990; Evans-Pritchard 1956). This esoteric speech is regularly laced with oral texts on mundane issues which Babukusu have to contend with in their daily endeavours while still alive (cf. McHugh 1989). In this manner, *Oswala Kumuse* is able to address both his human and non-human audiences.

The four cardinal points are also used during circumcision and *kumuse* rituals as a bridge where the human and mon-human universes intersect. This intersection is believed to endow token personhood to women, children and other men who will not have the benefit of *kumuse* commemorative oration (Evans-Pritchard 1956) enacted on their behalf. However, this token personhood is only supposed to be symbolically transferred to them if they regularly attend circumcisions and *kumuse* rituals. These two are public, open affairs whose audiences comprise the kin, non-kin as well as non-human spectators.

Each of the four cardinal points invokes and addresses itself to wide notions in the belief system of Babukusu. Concerns of a similar genre are found in other societies in and outside Africa. For instance, Griaule and Dieterlen (1991) states that the Dogon of Mali link the colours red, while, dark-blue and light-blue to the four cardinal points, the elements, and, in general, the world. In the Temne society, Sierra Leone, Lamp (1988) has observed that the local name for 'to menstruate' literally translates as 'to be in the east.' The same word also means 'up' while that for the west is 'down.' Therefore, to the Temne, the cardinal east is significant as the place of beginnings. It is the beginning of creation, temporal cycles, life cycles and cycles of cosmic time. It is also the source of ancestors, the place of birth as well as the site of circumcision (Lamp 1988). During the festivities of the wake several frenzied dances are carried out. People dance in a counter clockwise direction "around the town from east to west and back east...engages in the most defamatory and pornographic language" (Lamp 1988: 221). Among Babukusu such pornographic language is carried out the nocturnal moon dance of *khuminya*. Men and women hold hands and dance together and at times they may act coitus motions without any inhibitions, fear or embarrassment. Also, during this occasion people do not obey normal rules of proper etiquette. Therefore, one is liable to observe individuals performing all sorts of obscene dances, indecent gestures and clownish acts. Also, an exchange of all type of abuses and curses between the sexes, and especially directed at the mother of the initiate, are also done without any offense being taken (Nangendo 1994).

Griaule and Dieterlen (1991) have argued that the reversal of normally accepted bevahiours during such times is a caricature and defiance hurled at the divinity and the normal order of things. Lastly Turner (1971: 72) has interpreted such behaviour reversals as stressing that:

> chaos is the alternative to cosmos, so they had better stick to cosmos, that is, the traditional order of culture - though they can for a brief while have a heck of a good time being chaotic, in some saturnalian or lupercalian revelry, some charivari or institutionalized orgy.

Also, in Bukusu society, this phase of *khuminya* singing and dancing can last well past midnight when the initiate would be allowed to eat. Normally, the initiate is fed on meat which is salt-less and half-roasted. The initiate would then be allowed to rest and sleep for a short spell. Junod has described ordeals of a similar nature that Tsonga (speThonga) boys go through during their circumcision. Turner (1962) has documented how, during the installation of the senior chief among the Ndembu of Zambia, candidates have to appear "passive or humble. They must obey their instructors implicitly, and accept arbitrary punishment without complaint. It is as though they are being reduced or ground down to a uniform condition to be fashioned anew and endowed with additional powers to enable them cope with their new station in life" (p. 95). This observation succinctly sums

up the treatment of the Bukusu initiates. Turner (1962: 169-170) concludes that such treatment of initiates is meant to:

> teach the boys endurance, obedience, and manliness...they have the social significance of rendering them down into some kind of human *prima materia*, divested of specific form and reduced to a condition that, although it is still social, is without or beneath all accepted forms of status. The implication is that for an individual to go higher on the status ladder, he must go lower than the status ladder.

During the funeral orations and invocations in the Nuer society, Sudan, people are required to sit with their backs to the rising sun facing the direction of the setting sun. This is because they believe that death will always follow the setting sun (Evans-Pritchard 1956). To the Nuer, just as Babukusu, the cardinal west, which is also thought to be the left-hand side, is the direction of misfortunes, evil, feminity, weakness and death. On the other hand, the cardinal east, also conceptualized as the right-hand side, is felt to be a symbol of good omen, masculinity, prosperity, strength, vitality, virtue, goodness, life as well as paternal kin and lineage (Evans-Pritchard 1956). Therefore, during sacrifices an animal should fall on its right-hand side to indicate that the ancestors have given their blessings.

Outside the African context, Geetz (1960) stresses that among the Modjokuto peoples of east central Java, everything ranging from towns to rice fields, are all laid out "more or less in alignment with the major compass points in order to strike a chord and avoid a dissonance" (p.31). The findings of Barley (1989) and Volkman (1990) clearly informs us that the Torajans of Sulawesi, Indonesia, interpret the north-east and east as symbolically associated with fertility, wealth, rebirth and prestigious status. Also, these cardinal points are believed to have auspicious links with important ancestors as well as all significant social networks of an individual in the present. In fact, the east is metaphorically described as the "place where umbilical cords are planted" to show how these people link the cardinal east with the fecundity of women and general human procreation and fertility (Volkman 1990). Conversely, the west and south-west are the directions associated with death (Barley 1989).

Other societies feel that natural elements in the universe are symbolically linked to the human and spiritual worlds. For example, the Beng of Cote D'Ivoire associate fertility, health and life to coldness but heat is regularly linked with fertility, sickness and death. Because menstrual flow is associated with cold, a menstruating woman should not touch nor fan a corpse as she would be polluted with perpetual menstruation and, thus, be unable to procreate. Among the Bedouin Egyptians, white is the colour of religion and purity while red denotes femaleness, sexuality, fertility and creation of life (Abu-Lughod 1986). Red is furthermore the colour of circumcision and weddings pair together circumcision and weddings to

celebrate sexuality and fertility in their society. Therefore, married women are required to bear black veils and red woollen belts. A girl who is not yet married may only wear a kerchief on her head and around her waist. Rasmussen suggests that red is a frequent ritual reference to menstruation as well as the blood of parturition among the Tuaregs of eastern Niger. However, red is also alluded to in images of the devil and evil.

Finally, it is clear from this paper that many notions in the belief systems of Babukusu, particularly those which relate to the cardinal points, are shared elsewhere by other societies. This is not surprising given the conclusion of Geetz (1960) when he states that it is imperative that culture and nature are properly arranged so that there is harmony. This harmony is necessarily brought about by the cardinal points simply because these are the rhythms and heartbeats of life.

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RANDOM COINCIDENCE IN MASS COMPARISON: PRELIMINARY ANALYSIS OF THE NILO-SAHARAN LEXICON

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ABSTRACT

The role of chance in the similarities between the lexicons of the Nilo-Saharan languages was investigated. The methodology used was a statistical evaluation of mass comparison. The *n/m*-ary approach was preferred, because binary methods seemingly are not capable of detecting remote linguistic relationships. The major test material was a standard sample of the combination of Greenberg's (1963/1966) three Nilo-Saharan word lists, because the acceptance of the Nilo-Saharan hypothesis was based on this evidence. Word initial CVC-sequences were observed to be most diagnostic. In a detailed approach the probabilities and distributions of every different word initial CVC-sequence type were investigated and compared with the observed scores. Regarding the problematic 'members' (Songai etc.) any convincing evidence for their inclusion in Nilo-Saharan could not be provided. However, a common ancestry of most Nilo-Saharan languages can be considered a probable explanation. Frequently, similar roots can be found also in Niger-Congo. Around a dozen of the observed similarities were more common than expected by random coincidence. Finally, the *n/m*-ary approach reveals the usefulness and power of multilateral comparison as a hypothesis-generating method, and even more important, the hazards involved in its loose use. The effect of chance cannot be neglected in any serious language comparison. However, for every significant coincidence a linguistic explanation is always required.

INTRODUCTION

In comparative linguistics long-range classifications are usually not accepted. Yet in Africa they are commonly seen to be valid. Nilo-Saharan has generally, though not universally, been accepted as a genetic grouping. However, several competent scholars have questioned its unity. According to Heine (1992: 32) Nilo-Saharan is only a hypothesis. Tucker & Bryan (1956: 153) even rejected the integrity of Eastern Sudanic, which is now regarded as unquestionable. Their classification (Tucker & Bryan 1966) comprised a total of 21 'larger units' other than Songai. The critique concerning the validity of Chari-Nile (Shafer 1959: 179-180, Goodman 1970, and Bender 1976: 457) was partially accepted by Greenberg (1983: 18; in a footnote). Questioned units include at least Songai, Saharan and

Kuliak.[1] For an excellent new and up-to-date 'essay' (in fact a highly informative handbook, including more than three hundred proposed reconstructed forms) see Bender (1996a).[2]

The rare applications of probability calculations in genetic classification have yielded different results which are often highly disappointing. Fortunately, several new approaches seem cautious enough to be useful Ringe's (1992, 1993) binary test strongly supports the results of comparative reconstruction (forerunner: Ross 1950). A modified version was used for testing Ethiopian languages in Bender (1994). Oswalt (1991, first version 1970) and Sands (1995: 51-71) represents other methods of high quality. In the light of these studies, presumably, binary tests cannot go beyond the results achieved by the comparative method. Bender (1969) made an important empirical study comparing 21 unrelated languages, though it contained some inconsistencies. The work of Justeson & Stephens (1980) was based on Bender's study. They also proposed a test for mass comparison. Other new work and discussion include Baxter (1995), Baxter & Manaster Ramer (1996), Guy (1995), and Manaster Ramer & Hitchcock (1996).

Previous probabilistic studies have usually been with the form of binary tests. In consequence, the *n/m*-ary approach for the probabilistic evaluation of mass comparison ('multilateral comparison') is required. The null hypothesis is that there is no significant difference between observed similarities and those expected due to chance. The alternative hypothesis demands linguistic explanation (genetic relationship, contact or sound symbolism).

1. Methodology

The principal method used here was a modification of the test proposed by Ringe (1992: 71-76) and Baxter & Manaster Ramer (1996).[3] Using Baxter's and

[1] According to Nicolaï (1990) Songai is not part of Nilo-Saharan, but a creole based on Tuareg. Concerning the status of Saharan see the discussion in Cyffer (1996). For the status of Kuliak, see Laughlin (1975) and Heine (1975: 264-265, 1976: 69-72).

[2] Bender has modified the internal structure and nomenclature of Nilo-Saharan after the work of Greenberg (see Bender 1996a, 1996b). An alternative classification is Ehret (1989 and 1993, see also the critique in Bender 1996a). Concerning the possible Nilo-Saharan status of Kado, see Schadeberg (1981), Dimmendaal (1987), and Stevenson (1991).

[3] The method applied was thus different from Ringe's (1992, 1993, 1995a) binary ('pairwise') method; and fundamentally different from the approach he used trying to test (or reject) the 'Nostratic' (Ringe 1995b) or 'Amerind' (Ringe 1996) hypotheses.

Manaster Ramer's (1996: 380) terminology this approach means the '*n/m*-ary' comparison, where:

n is the number of languages (word lists) involved
m is the minimum number of the languages that must have some similarity in an item to be regarded as a match
p is the probability of a match between two languages

Baxter & Manaster Ramer (1996: 382) propose that the "*n/m*-ary comparison can be far superior to binary (2/2-ary) comparison, if *n* is large enough and if *m* is sufficiently close to *n*." The value of *m* ought to be significantly higher than what is to be expected on the basis of pure chance. The value of *p* has to be low relative to *n* to ensure that mass comparison is superior to the binary approach (Manaster Ramer & Hitchcock 1996: 614).

The number of accidental similarities depends on the frequency of the phonemes and the phono tactics of the languages involved, and on the number and length of the lists compared (Ringe 1995a: 100). The main properties of the vocabulary lists are (details in Ringe 1992: 3-6):[4]

(i) a standard word list, avoiding cultural and apparently sound symbolic words
(ii) semantic matching as far as possible
(iii) word-initial and word-final vowels regarded as zero consonants (symbol Ø)

The failure to show more-than-chance-similarities is not necessarily an indication of a missing genetic relationship. What is important is that the probability test shows the hazards of 'look-a-like reconstructions'. The following are the steps of the approach used here:

(i) The frequencies of different consonants in their various phono tactic positions (word initial CVC-sequences in standard word lists) are calculated.
(ii) These figures are added up according to the phonetic similarity sets.

[4] For the length of the lists, approximate synonyms, and inexact phonetic correspondences, see Ringe (1992: 55-70); the adjustments and corrections in Ringe (1995a: 99-103, 121); and a note in Ringe (1996: 139). See also the critique by Baxter & Manaster Ramer (1996, especially pages 373-377, 379-382), and the comments in Manaster Ramer & Hitchcock (1996: 613-614).

(iii) The expected frequency of each word-initial CVC-type in the average [Nilo-Saharan] language is calculated according to these consonant type frequencies.

(iv) The probability of random coincidence between languages is computed according to the Poisson distribution for each different CVC-sequence (for every value of *k*); only synonymous word-initial correspondences are included.

(v) Multiplying each row in the probability table of the word-initial CVC:s by the length of the word list, we get the expected number of random coincidences comprising the respective number of word-initial CVC's.

(vi) These random scores are compared with the observed scores [in Greenberg's etymology lists] (*n*=number of word lists, i.e. 18 test languages, each having in this case 93 words).

(vii) If the observed frequencies are significantly higher than expected due to pure chance, a linguistic explanation is required. (Confidence intervals with 95% probability to contain the true value.)

Whole word-initial CVC-sequences were compared instead of single consonants. To avoid "the systematic exclusion of relevant evidence" as criticized by Greenberg (1993: 89), the criteria of phonetic similarity as applied by Greenberg were accepted as the basis of analysis. However, the strictness of statistical criteria demands the occasional exclusion of non-similar evidence, as we will see later. This restriction, as well as some other modifications, is important for keeping the diagnostic value of the test as high as possible. The imprudent application of Greenberg's formula simply - and mathematically wrongly - skips over languages lacking similar forms in order to continue searching for correspondences in further languages. The *n/m*-ary test of mass comparison rectifies this mathematical deficiency. (See also the important discussion in Manaster Ramer & Hitchcock 1996: 611-617.) The expected number of similar forms was compared with those observed by Greenberg (1966). The probabilities were counted according to the Poisson distribution, which is appropriate with low frequency phenomena (cf. also the results of Bender 1969 and Justeson & Stephens 1980).[5] The formula of the Poisson distribution (sum of probabilities):

[5] For a discussion on the application of proper distributions, see Ringe (1996: 139) and Baxter & Manaster Ramer (1996: 373-374, 381). The empirical results of Bender (1969) support the Poisson approach for CVC-correspondences. For testing only one consonant comparison, the Poisson distribution is obviously not the most suitable, though differences between various distributions within large samples are not enormous. The multinomial distribution has also been suggested (Baxter & Manaster Ramer 1996: 381).

$$\sum_{k=0}^{\infty} P\ (\underline{x}=k) = \sum_{k=0}^{\infty} \frac{\lambda^k}{k!}\ e^{-\lambda}$$

Expected value $E\underline{x} = \lambda$ (binomial *np*)
Variance $D^2\underline{x} = \lambda$
Assuming $\lambda = np$ (for large *n* and small *p*, so that $\lambda = np$ is moderate)
n = number of word lists (or trials; here 18)
p = probability of the event A is the joint ($p_i p_j$) probability of events A_i and A_j; event A_i = consonant initial (p_i), event A_j = first consonant after first vowel (p_j)
$\underline{x}$ = random variable,
k = 0, 1 ... ∞ successes (favourable outcomes for the event A)
e = base of the natural logarithms

It should be mentioned that the statistical tests can be quite problematic in some comparisons, but this must not be overestimated. Sometimes difficulties can arise from the use of gender and other prefixes. One impossible example would be: Dinka *lwàŋ*, Maasai *ɔl-ɔjɔŋáni* 'fly' (Tucker 1975: 19). In addition, for example, 'movable k' and 'movable t' are problematic:[6]

Nyimang *ʈɛgile* 'red',
Dinik *gila* 'red' (Stevenson 1991: 362)

Moru *k-úsu* 'bow', *t-äú* 'fowl';
Madi *ósù* 'bow', *a'ú* 'fowl' (Tucker 1940: 63)

Moreover, many reconstructed Proto-Nilotic roots (by Dimmendaal 1988) will be lost with the test; approximately 20-30% might remain unnoticed. See also similar difficulties mentioned by Baxter & Manaster Ramer (1996: 378).

What is noteworthy when interpreting the results concerning extremely remote relationships? The statistical approach cannot tell which or how many of the languages compared belong to the hypothetical phyla. The *n/m*-test cannot tell which single tokens of proposed isoglosses or etymologies are of common origin,

[6] 'Disappearing k' according to Bender (1996a: 75); see Greenberg (1966: 116, 132) and Stevenson (1991: 356, 362-363).

which are loan words, and which are accidentally similar. In consequence, a linguistic explanation is always required.

2. Test Material

2.1 Greenberg's Nilo-Saharan Etymologies

The test material was a combined list based on Greenberg's (1966) three Nilo-Saharan word lists (Eastern Sudanic, Chari-Nile, and Nilo-Saharan; abbreviations henceforth: ES, CN and NS respectively). The combined list included 235 'etymologies' proposed by Greenberg comprising 1,819 word tokens in a total of 129 varieties (ca. 94 languages).[7]

These included 1,478 word tokens (a remarkably high 81% of the total), which were semantically matching with the main meaning of the etymology (in multiple translations at least one meaning). Worth emphasizing is that Greenberg has been cautious when allowing semantic shifts in his mass comparison of Nilo-Saharan. If additional tokens within the same stock were excluded, there would remain a total of 1,002 word tokens in 18 stocks (1,005 if Gumuz is regarded as the 19th stock), and 688 tokens in 18 sample languages. The 235 etymologies included 180 glosses with mutually differing primary meanings.

2.2 Sample Words

According to empirical tests (Ringe 1992: 63-64), lists of one hundred words give the best results. This also seems to hold true with Greenberg's Nilo-Saharan material. Using 200 word lists or the comprehensive (combined) etymology list, relatively fewer similarities were observed.

Bender's (1971: 169) Ethiopian word list[8] was chosen as a frame for the statistical sample and analyses. Without personal pronouns, which Greenberg included in his list of grammatical elements, the total length of the test list was 93 items. Those 68 glosses involving ca. 103 etymologies, which semantically matched Bender's Ethiopian word list, were selected for detailed analysis.

[7] Without a handful of alternative spellings. Includes 2 words belonging to Northern Mao, an Omotic language (see Fleming 1976: 311-313 or Bender 1990: 589); Ganza is also included in this sum.

[8] There are slight differences compared with the new version (Bender 1994).

Greenberg's combined Nilo-Saharan list lacked 25 glosses of Bender's shortened list. When compared with the word lists of other phyla in Greenberg (1966), these glosses were presumably included in his comparisons (except 'father'), but no correspondences could apparently be found between Nilo-Saharan stocks.

Bender's items in Greenberg's combined Nilo-Saharan list comprised a total of 482 tokens (without additional synonymous tokens in the same stock) in these 18 stocks (in any language), including semantically and phonologically inexact forms. Of these, 287 were semantically matching correspondences (ca. 60% of the total) occurring in 18 sample languages (see table 1). Quite often only a handful of similar forms was observed in a sample language. The most common etymology (e109 [9] 'rain') occurred in 13 stocks (according to the current classification).

Table 1. Lexical data. Test languages within their lineages in Greenberg's data.

Stock code and sample language	Different etymologies, total		Coverage	Different etymologies within the 93 word sample	
	stock	language		stock [A]	language [B]
A Songai [C]	70	65	93%	24	20
B Daza	100	43	43%	36	12
C Maba	67	57	85%	38	26
D Fur	44	44	100%	24	18
E1 Kenuz [D]	103	65	63%	49	26
E2 Didinga	54	42	78%	26	19
E3 Nera	40	40	100%	24	24
E4 Gaam [E]	28	28	100%	20	15
E5 Nyimang	17	15	88%	11	8
E6 Temein	9	6	67%	4	2

[9] e109 means the etymology number 109 in the combined list of Greenberg's Nilo-Saharan etymologies, made for the purpose of this study.

E7 Merarit	33	24	73%	22	15
E8 Daju [F]	18	12	67%	10	7
E9 Bari	158	67	42%	62	17
F Mangbetu	102	46	45%	53	19
G Berta [E]	41	37	90%	18	18
H Kunama	57	57	100%	27	23
IJ Koma [G]	49	28	57 (67) %	26	12
K Nyangi	12	12	100%	8	6
Total	1002	688	69%	482	287

[A] Total number of etymologies within the 93 word sample, including all semantically
and phonologically differing correspondences in the whole stock (all languages).
[B] Includes only those etymologies which are strictly according to both the phoneme type and the meaning, and which were found in the sample languages. To illustrate what this means, we can take Maba as an example. The number 26 in the last column means that there are in each of the 26 cases one or more similar form(s) listed in any (of the almost 100) non-Maban languages included in Greenberg's Nilo-Saharan material (i.e. not only other test languages).
[C] Songai included Gao, Songhai, and Timbuktu. The more greatly different variety, Djerma, (=Zerma) with 33 tokens, but only five additional etymologies, was excluded.
[D] Kenuz-Dongola primarily included Kenuz, and additional etymologies of Dongola and a few etymologies under the names Nubian and Nile Nubian.
[E] E4 contained according to Greenberg only Ingassana (Gaam). He included Aka-Kelo-Molo (Sillok, Tornasi, and Malkan) in G Berta. Bender has later reclassified these languages into (Eastern) Jebel. The figures in the table are according to Greenberg's classification.
[F] Daju (Dagu) of Darfur included one word under the group name Dagu.
[G] Greenberg classified Gumuz (10 etymologies) into Koman (with Ganza and Mao); altogether 83 words belonging to 49 etymologies. Greenberg's 'Koma' comprised the varieties Koma, Buldiit, Chiita, Kusgilo, and Madin.

2.3 Lineages and Sample Languages

The Nilo-Saharan 'family' is best regarded as a superphylum, with hypothetically 12 member phyla, these phyla being the same as Bender's (1996a: 64) 12 'families'. These terms are preferred because attempts at reconstruction using a historical-comparative method do not seem to give any results. Other phyla than Eastern Sudanic are henceforth called stocks. Because of the great heterogeneity of Eastern Sudanic phylum, its 9 member stocks were treated separately. All these 20 stocks correspond almost exactly to Tucker & Bryan's (1966) larger units, and each has clear evidence of a genetic relationship within themselves.

The best documented language from each of the 18 stocks in the combined word list was selected after a careful investigation of the whole data. The 19th lineage, Gumuz, was left out, since it was presumably under-represented in the lists. Gumuz was formerly classified with Koman, but is currently separated from it by Bender (1996a: 63). Kado ('Tumtum'), belonging to Niger-Kordofanian according to Greenberg, was also excluded. The code system of Bender (A, B, ... E1, E2, ...) was applied.

The test languages represented their lineages surprisingly well, comprising on average 69% of the etymologies within the respective stocks, excluding additional tokens within lineages. Only 3 sample languages were below 50% within their stocks, namely: Daza of Saharan 43%, Bari of Nilotic 42%, and Mangbetu of Central Sudanic 45%. Other languages comprised 63-93% (if Gumuz is included the percentage of Koman falls to 57%) of the etymologies within their stocks, and the 5 single representatives of their stocks, obviously, a full 100%. For details see table 1. The explanation for the lowest percentages is, as might be easily understood, the heterogeneity of those 3 lineages. Finding similarities is much easier from lineages with two dozen or more languages, as there are in Nilotic and Central Sudanic.[10]

2.4 Phoneme Frequency

The phonetic similarities accepted by Greenberg were investigated. It was noticed that they were generally quite plausible. The consonants could be classified into 8 consonant types corresponding to natural classes (see table 2). They can be

[10] In addition to Bari the most common Nilotic languages/language clusters in Greenberg's lists were Dinka (Jieng) 59, Nuer (Naadh) 49, Shilluk (Colo) 44, Lotuko 34, Maa(sai) 45, and Nandi 30 words. The best-documented Central Sudanic languages after Mangbetu were Madi 29, Moru 26, Lendu (Badha) 26, Kre(i)sh 20, and Bagirmi 19 times. Besides Daza the Saharan language Kanuri had 41, and Zag(h)awa 30 tokens in the combined word list.

regarded as reasonable in the light of commonly found phonological changes in various languages.

Table 2. Phoneme types grouped for probability analysis.

Type	Major examples	
Ø	Ø	zero consonants (i.e. vowel in word initial or word final position)
	ʔ	glottal stops
	w j (y)	approximants
M	m	labial nasals
N	n ɲ (ny) ŋ	other nasal consonants
L	r l	rhotics and lateral approximants
S	s ʃ (sh) z	sibilants
P	p b f v	bilabial/labiodental oral stops and fricatives
T	t ϴ d c^H	coronal (dental/alveolar/postalveolar/retroflex) oral stops and (non-sibilant) fricatives
K	k g ɟ x ɣ h	palatal/velar/uvular/pharyngeal/labial-velar stops and fricatives; glottal fricatives

[H] This might seem inconsistent, but we are following Greenberg's etymologies (and they are extremely rare in the sample).

The phoneme types are not indicated by Greenberg, but they are evident upon examination of the word lists. However, exceptions to the natural classes were strictly avoided. Explosives, implosives, ejectives, affricates, and secondary articulations were not separated. Without doing this grouping there would remain practically no corresponding forms left. However, after the lumping of phonemes a problem of conflicting correspondences emerges between language pairs (e.g. *k=k, k=g, g=k, g=g*). Phoneme types T and S could as well have been combined, but this will increase the probability of random coincidences, and consequently reduces the power of the test. Vowels were also investigated, but they appeared to be too dissimilar. Thus, they had to be ignored. However, the similarity in vowels is certainly of frequent importance as supporting evidence.

Consonant clusters were extremely rare in Greenberg's data. Word-initial consonant clusters comprised about 2-3% of the 287 sample words, and first consonant sequences after the first vowel less than 5% of the sample words. The arbitrary choice was the first one in both cases for the analysis. Sample words beginning with a vowel comprised ca. 25% of the data, and words beginning with approximants ca. 5 %. These words were regarded as beginning with a zero consonant. Similarly, in one-syllable words ending in a vowel, the missing last consonant was also treated as a zero consonant. This might not be the linguistically best solution, but was necessary for mathematical simplicity.

In cases of close relationship there is some dependency between languages regarding their phoneme frequency and phonotactics. Often rather dissimilar patterns can be found between languages of the same family. The dependency is assumed to be insignificant in long-range comparisons. However, this problem requires empirical clarification. Empirical testing has indicated (Ringe 1995a: 121 and 1996: 147) that, if 10 or more languages are compared, the average phoneme frequency can be used. Of course this holds true only within the given phonotactic positions. This yields a close approximation with the results of exact language-specific frequencies.

When two languages have similar high-frequency phonemes in the same phonotactic positions, this can raise the overall number of binary matches. On the other hand, languages having lower frequencies of some phoneme types in the phonotactic position being compared, may lack similar forms with other languages. This might conceivably result in a situation where finding accidental similarities from every compared language in an *n/m*-ary comparison is difficult.

The frequencies of word-initial CVC-sequences were calculated on the basis of 2,749 basic words in 33 word lists of Nilo-Saharan languages from available sources (usually lists of one hundred). At first the frequencies of initial consonants and then, separately, the first consonants after the first vowel were counted in each language. These frequencies were then summed up within consonant types for both phonotactic positions. The frequencies are weighted by the lineage and the length of the word lists.

In table 3 the columns show the frequency of the word-initial consonant types, and the rows indicate the frequency of the first consonants after the first vowels in average Nilo-Saharan languages. At the cutting point we can see the expected ('chance') frequency of the proper word initial CVC-sequence. For example the expected frequency of word-initial ØVL-sequence is 6.46%. These calculations demonstrate that the phoneme frequency is highly dependent on the phonotactic position.

When both these phonotactic positions (grouped according to the consonant types) are considered jointly, the expected random similarity between word-initial CVC-sequences, in 2 languages having the mean Nilo-Saharan phoneme frequency, would be 2.74-2.79% depending on the weighting criteria.

No dependency between the consonant initials and the first consonants after the first vowels was allowed. Using more liberal criteria the expected chance probability would increase to ca. 3.5% (as in Bender's 1969: 528 weakened criteria), because ca. 1/5 of the words involved were short, having only one CV-sequence.

As is well known, binary comparisons cannot 'prove' the validity of Nilo-Saharan as a genetic unit. Note that according to Greenberg (1971: 19) himself, the modal value for accidental similarities between unrelated languages is 4%. His combined Nilo-Saharan word list gives an average of only 3.3% binary lexical similarities between the 18 sample languages (93 word list).

Table 3. The expected joint frequency of consonant types weighted by lineage and by the length of the word lists (%). Word-initial CVC:s in average NS language.

First consonant after first vowel	Initial									$\sum$ (cv$\underline{C}$)	*n* (cv$\underline{C}$)
	Ø	P	T	S	K	L	M	N			
Ø[1]	4.58	1.41	2.94	1.08	3.72	0.49	1.06	1.19		16.46	428
P	1.70	0.52	1.09	0.40	1.38	0.18	0.39	0.44		6.10	181
T	3.73	1.15	2.40	0.88	3.03	0.40	0.86	0.97		13.43	368
S	2.07	0.64	1.33	0.49	1.68	0.22	0.48	0.54		7.45	402
K	3.62	1.12	2.33	0.85	2.94	0.39	0.83	0.94		13.02	210
L	6.46	1.99	4.15	1.52	5.24	0.69	1.49	1.68		23.22	590
M	1.51	0.47	0.97	0.36	1.23	0.16	0.35	0.39		5.44	161
N	4.13	1.27	2.66	0.98	3.36	0.44	0.95	1.08		14.87	409
$\sum$ (Cvc)	27.80	8.57	17.87	6.56	22.58	2.98	6.41	7.23		100.00	2749
n (Cvc)	854	221	619	424	181	83	170	197		2749	

1 mostly short words containing only one syllable (usually a CV-sequence)
n = the absolute number of phonemes in the phoneme type category, 33 languages.
Note that the percentages are weighted.

3. Results

3.1 Aggregate approach

Only 64 etymologies, with 185 word tokens, had the required word initial CVC-similarity in form and meaning. Out of these words 169 featured some 'primary' CVC-correspondences. Others were 'transitional' secondary (16 tokens) or tertiary (2 tokens) forms of same etymologies, having within themselves similar word-initial CVC-sequences. Compared with the primary correspondences, they were partially different and were therefore regarded as transitionals.[11]

The observed similarities in the sample of Greenberg's data compared with the total number of expected random coincidences is shown in table 4 (see also figure 1). The test included 18 sample languages, and the length of the list was 93 words. Because probabilities are proportional, they do not indicate the exact number of occurrences (Ringe 1995b: 56-57).

The first column in table 4 shows the number of word lists (*k*). The second column indicates the number of observed etymologies in Greenberg's data, within the 93 word sample of the 18 languages, including phonologically inexact forms. Third column contains only the strict correspondences acceptable to the criteria applied. For statistical requirements transitional forms were split down and regrouped according to their phoneme types. The reason is that the internal classifications of every category have to be mutually exclusive to carry out any probability analysis. Because the transitional correspondences were separated the figures for 4 or more languages were reduced, consequently increasing the figures for 2-3 languages.

If the figures in the third column are multiplied by the number of the lists (first column), we get the number of observed tokens shown in the fourth column. The fifth column indicates the expected number of CVC-coincidences (tokens) according to the Poisson distribution. The last column shows the expected tokens

[11] Of the 103 sample etymologies, 14 occurred in only one, and 5 in none of the sample languages (the reason being that they were listed only in non-sample languages). Twenty etymologies, with 88 tokens, featured only similar single consonants or a (few cases) CVC-similarity in different positions of a word between any sample languages.

Word initial CVCVC-sequences were investigated according to the same criteria. Only 3 cases of CVCVC-coincidences were found in the sample. Because of the rarity of matches between longer words, the base for the detailed analysis must be a word-initial CVC-sequence. The use of single consonants can lead to questionable results.

according to the binomial distribution. There we can see the slight difference between these distributions.

There are considerably fewer observed correspondences than expected involving 2 or 3 sample languages. This must simply mean that Greenberg, presumably and cautiously, discarded most random coincidences of scattered similarities occurring in only a few languages. In the aggregate approach only the frequency of one etymology (e225 'who?') is significantly above the expected. (Boldfaced in table 4; featuring an observed strict word-initial CVC-correspondence in 8 lists, when only 5 lists can be expected by random coincidence.) Therefore, with case of this etymology, only the null hypothesis (i.e. similarities are due to pure chance) has to be rejected.

The combined probability of mutually exclusive events is the sum of individual probabilities. In a sample of 18 languages, each with a 93-word list, the total number of tokens is 1,674. Presuming the weighted Nilo-Saharan mean phoneme type frequencies, these lists will include, according to the Poisson distribution, altogether ca. 1,070[12] expected unique word-initial CVC-tokens, with no similar forms with the same meaning between any sample language. In addition, there will be 218 cases of expected binary coincidences (totalling 436 word tokens), i.e. accidentally similar word initial CVC-sequences with the same meaning, found between exactly 2 unrelated languages out of 18. Similarly, there would be an expected 43 cases of triple coincidences (129 tokens) of accidentally similar form-meaning relationships between exactly 3 unrelated languages. Moreover, we can expect (almost) 8 cases of random coincidences (with almost 32 word tokens) of word-initial CVC-sequences between exactly 4 unrelated languages. One similar item with the same meaning is expected to be found in 5 unrelated languages, but none (expected value) in 6 or more languages.

[12] If we subtract this figure from the grand total (1674 tokens), we get a total of ca. 605 expected tokens of random correspondences, which seems reasonable when compared to Bender's (1969: 528) total number of correspondences (714 with his weakened criteria) in 21 unrelated languages (lists of 99 words).

Table 4. The observed correspondences (Greenberg's data) in the 18 sample languages (lists of 93 words) compared to the total number of expected random word-initial CVC-similarities between 18 unrelated languages (k=10...18 omitted, each being approximately 0.00).

k Languages (lists)	Observed etymologies		Observed tokens	Expected tokens[J]	
	Total	Strict		Poisson	Binomial
9	1	0	0	0.00	0.00
8	1	1	8[K]	0.03	0.01
7	3	0	0	0.20	0.08
6	3	0	0	1.22	0.65
5	6	0	0	6.64	4.59
4	16	10	40	31.67	26.27
3	15	17	51	129.15	120.84
2	39	43	86	436.25	435.29
Total ($k\geq 2$)	84	71	185	605.16	587.72
Mean (the expectation, the number of lists out of 18)[L]				1.49	1.46

[J] combined probability, i.e. the sum of expected frequencies of (64 possible) individual word-initial CVC-types

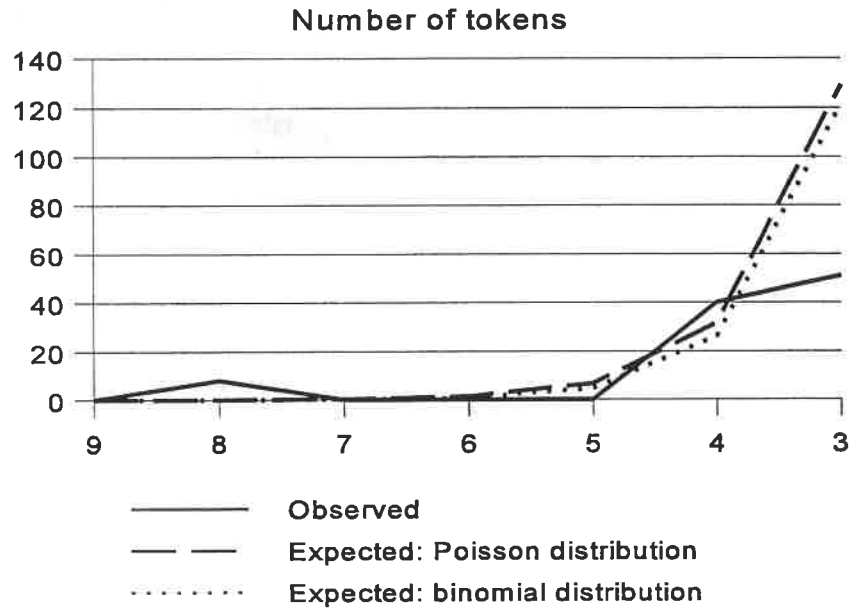
[K] significant at the 5 percent level

[L] the observed mean cannot be calculated, because etymology lists are not comprehensive lists

The mean (expectation) is 1.49 lists (or sample languages out of 18) for every semantically different word-initial CVC-sequence. With the 95% confidence limits (two-tailed, the Poisson distribution) at least 7 languages are needed for significance. With the 99% confidence limits (two-tailed), more than 8 lists are

needed for concluding that pure chance is not enough to explain the coincidence.[13] Nevertheless, genetic relationship is only one explanation, alongside loan words or sound symbolism.

Figure 1. Observed and expected (Poisson and binomial distributions) frequencies



compared (18 lists, each having 93 words).

3.2 Detailed Approach

The aggregate analysis might, however, lack important details. Therefore, a more elaborated approach, which separately takes into account the different probabilities of various CVC-sequences, was also applied. The probabilities of the random occurrence of every different word-initial CVC-sequence type were calculated separately (according to the Poisson distribution; sample of 18 languages, each having a list of 93 words). The expected distributions of most common CVC-sequences are presented in Appendix 1.

[13] For confidence limits see Rohlf & Sokal (1995: 87-89, 92-105); or a somewhat different approach in Pearson & Hartley (1966: 80-84, 227-229).

The expected probabilities of random correspondences for every different word initial CVC-sequence were compared with the similarities actually found. Those etymologies observed in at least 4 sample languages are included in table 5 (strict cases). However, etymologies with at least 6 inexact tokens are also included, as well as all those with more observed tokens than expected by random coincidence. The similarities found to occur more often than expected are indicated in boldface. Compared to the expected ('max.') usually 2 more tokens are needed for significance.

Table 5. Word-initial CVC-sequences with the same meaning observed in at least 4 sample languages.

#	Meaning	CVC-type	Observed tokens		Expected tokens		N [M]
			Total	Strict	Mean	Max.	
e225	who	NVØ	9	8*	0.216	2	20
e134	mouth 2	ØVK	7	**4**	0.648	3	60
e151	rain	ØVL KVL	7	4 2	1.170 0.936	4 4	109 87
e112	to kill 2 /to die 2	ØVØ	4+3	**4** 3	0.828 0.828	3 3	77 77
e60	dog	ØVS	6	**4**	0.378	2	35
e1	head ('above')	ØVL	5	4	1.170	4	109
e88	fly 2	KVL	5	4	0.936	4	87
e209	tooth	NVK	5	**4**	0.162	2	15
e224	white 3	PVT	5	**4**	0.216	2	20
e124	man 1	ØVT	4	**4**	0.666	3	62
e222	white 1	ØVL	4	4	1.170	4	109
Other observed etymologies with at least 6 tokens if transitional forms are included:							

e128	meat 2	NVØ ØVN NVN	8	**3** 3 2	0.216 0.738 0.198	2 3 2	20 69 18
e207	tongue 1	KVL LVT	7	2 **2**	0.936 0.072	4 1	87 7
e30	blood 1	ØVL KVL	6	3 3	1.170 0.936	4 4	109 87
e49	to come	KVØ	6	2	0.666	3	62
All other etymologies in the sample more common than expected:							
e91	to go 1	LVØ	2	**2**	0.090	1	8
e95	grass	LVØ	5	**3**	0.090	1	8
e144	one	TVK	4	**3**	0.414	2	38
e223	white 2	PVP	2	**2**	0.090	1	8

* = significant at the 95% confidence limit
(Boldface = observed tokens exceeding the expected)
[M] N=the total expected absolute frequency of the sequence type in the sample.

Only e225 'who?' was significantly (2 expected and 8 observed cases) above the expected by random coincidence (with the 95% confidence limits for the Poisson distribution), and needs a linguistic explanation. In addition, the ninth language, Didinga had to be left out due to the strictness of the criteria. In addition, 1-2 items were found in the supplementary data.[14] However, similar forms were also found in Niger-Congo and elsewhere. Typically, there was a short root with an initial nasal and a zero consonant after the first vowel. Other nearly significant cases were especially e209 'tooth' (evidence only for Eastern Sudanic) and e224 'white 3'. Other important etymologies found more often than expected included notably: 'meat 2' (still unconvincing as evidence for Nilo-Saharan, because it is one of the common African roots), 'dog' (which is a Wanderwort), 'mouth 2' (Eastern Sudanic), 'man 1' (Eastern Sudanic and Berta) and 'to kill 2/to die 2' (short roots; also in Niger-Congo). However, finding a few spuriously

[14] Bender (1996a etc.), Blench (1995), Boyd (1978), Ehret (1989 etc.), and Gregersen (1972) were consulted among several other sources. This supplementary evidence will be discussed in a later article. However, additional supporting (or conflicting) evidence was observed only in a few cases.

significant cases of observed similarities is possible, and yet they do not stand as proof of a genetic relationship.

Though the quantity of 'mass compared' similarities in Nilo-Saharan is not highly convincing and usually insignificant, we ought not to forget that notably Temein and Nyimang had incomplete data. None of the investigated etymologies occurred in more than half the sample languages (strict criteria, in the original data). However, the results seem partially to lend support to the Nilo-Saharan hypothesis.

3.3 CVC-Coincidences in Individual Sample Languages

If strict criteria are required, and the word initial CVC-similarity is found at least in 2 sample languages (being more common than expected by chance according to the Poisson distribution; boldface in table 5), the individual sample languages featured these etymologies quite sporadically as follows: Temein none, but this was due to poor data. (The supplementary data included *ŋa-ni* 'who?') Songai, Bari, Mangbetu, and Koma each had 1; Daza, Didinga, Gaam, Daju, and Berta each 2 (presumably being comparable to Afroasiatic). Fur, Nyimang, and Nyangi (SIC) each had 3 (these figures might be comparable to Niger-Congo); Kenuz-Dongola, Merarit, and Kunama each 4; and finally Maba and Nera, both 6 items. Supplementary data did not affect these figures significantly; noteworthy were only Gaam [+] and Nyangi [-]. It might be worth mentioning that in non-sample languages a few coincidences were found in Krongo, but none in Gumuz.

In addition, the comparison revealed many similarities between Nilo-Saharan and Niger-Congo requiring linguistic explanation.[15] The few coincidences with Afroasiatic are presumably due to contact, sound symbolism, and chance.

4. Conclusion

The *n/m*-ary test seems to work quite well, if the employed criteria are strict. A precise consideration of the phonology, phonotactics, and semantic similarity is necessary. The results of detailed analysis would appear to be more diagnostic than the aggregate values. Calculating only the crude mean probabilities is likely to indicate nothing. The test provided a few clues for a possible remote affinity between most Nilo-Saharan lineages. The results are in good accordance with the hypothetical status of Nilo-Saharan as a genetic unit, being something like an

[15] Cf. the Kongo-Saharan hypothesis (Gregersen 1972, Bender 1981: 263; 1992: 37; and 1996a: 66, 118-119, 126-136); see also Blench ('Niger-Saharan', 1995), and Boyd (1978).

African counterpart for 'Eurasiatic' (or 'Nostratic', cf. Fleming 1987: 170). Though the lexical data could not give much support for the hypothesis, the grammatical evidence might still be more powerful (and will be considered in a forthcoming article).

However, there are limitations in statistical considerations. First, the small sample size, sampling errors and different phoneme inventories presumably result in the binary coincidences being more frequent than the results indicated. Secondly, and more importantly, these same reasons may result in 'too few' (*n/n*, and *n/n-1*) widely distributed similarities. Therefore, the standard significance levels may be too rigid, and perhaps lower significance requirements must be preferred.

Similar forms are frequently found especially in the Niger-Congo phylum. Consequently, there remains the important question: Is Nilo-Saharan both an inclusively and an exclusively valid lineage? The common origin of the nucleus (larger than Eastern Sudanic; Bender's 'Core' or 'Satellite-Core'?) of Nilo-Saharan superphylum seems plausible - though still hypothetical. However, the exact status of Nilo-Saharan remains unresolved.

The inclusion of questioned units (e.g. Songai) could not be substantiated. Until someone is capable to confirm the (partial?) validity of Nilo-Saharan, at least the 'outliers' might more cautiously be regarded as independent families. After the vigorous and unsound criticism expressed by Bantuists and Nilo-Hamiticists against Greenberg, accepting the Nilo-Saharan status of some 'marginal' languages as a part of his whole African classification might have been too easy. Nevertheless, this does not diminish the great value of Greenberg's work as an achievement of order out of the chaos of 'unclassification'.

Most importantly, the test shows both the usefulness of multilateral comparison as a hypothesis-generating method, and the serious risks involved in its loose use. Particularly the number of similarities between unrelated languages can be startling, but mere accident is still enough to explain them. Moreover, the *n/m*-ary test is also useful for detecting possible cases of sound symbolism (which seem not to be uncommon even among the basic words) and Wanderwörter. The further sophistication of probability tests in comparative linguistics is recommended. Their use is a necessity at least in long-range comparisons.

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APPENDIX 1. NOTES.

The relevant probabilities will be found at the intersections of the columns and rows. For example column ØVL indicates the probability of random occurrences of word-initial ØVL-sequences with the same meaning in different lists (for every value of x; $k \geq 9$ omitted, each being approximately 0.00). The rows indicate the number of word lists (i.e. languages) with this expected probability. (E.g. k=4 represents 4 lists.)

Similarly, the lower part of table indicates the expected frequencies (the number of tokens) of word-initial CVC-sequences, for every value of k. For example, the total number of expected tokens of word-initial ØVL-sequences is 108.81, being a fraction (p=0.065) of the grand total of 1674 tokens (=93*18). At the cutting point (row k=4, column ØVL) the figure 9.01 shows that in this case a chance coincidence [meaning that the proportion is 2.2525 cases of coincidences in 4 languages] can be expected in 4 unrelated languages. (Note that this is not the expectation or the mean of the Poisson variable.) The next row reveals that a ØVL-correspondence is unexpected to occur accidentally in 5 unrelated languages.

APPENDIX 1. The probabilities and expected frequencies for different word-initial CVC-sequences, assuming languages are unrelated (n=18 lists, each having 93 words), according to the Poisson distribution.

CVC-type	ØVL	KVL	ØVØ	TVL, ØVN	ØVT, KVØ	ØVK	KVN	KVT	KVK.TVØ
p =	0.065	0.052	0.046	0.041	0.037	0.036	0.034	0.030	0.029
k	$P\ [x=k]$	(exactly k cases of CVC-coincidences)			$k > 8$ omitted				
0	0.3104	0.3922	0.4369	0.4781	0.5138	0.5231	0.5423	0.5827	0.5933
1	0.3631	0.3671	0.3618	0.3528	0.3422	0.3390	0.3319	0.3147	0.3097
2	0.2124	0.1718	0.1498	0.1302	0.1139	0.1098	0.1016	0.0850	0.0808
3	0.0828	0.0536	0.0413	0.0320	0.0253	0.0237	0.0207	0.0153	0.0141
4	0.0242	0.0125	0.0086	0.0059	0.0042	0.0038	0.0032	0.0021	0.0018
5	0.0057	0.0023	0.0014	0.0009	0.0006	0.0005	0.0004	0.0002	0.0002
6	0.0011	0.0004	0.0002	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000
7	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	$P\ [x \geq k]$	(at least k cases of CVC-coincidences)			$k > 8$ omitted				
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	0.6896	0.6078	0.5631	0.5219	0.4862	0.4769	0.4577	0.4173	0.4067
2	0.3265	0.2407	0.2013	0.1691	0.1441	0.1379	0.1259	0.1026	0.0969
3	0.1141	0.0689	0.0515	0.0389	0.0301	0.0281	0.0243	0.0176	0.0161
4	0.0312	0.0153	0.0102	0.0069	0.0048	0.0044	0.0036	0.0023	0.0020
5	0.0070	0.0028	0.0016	0.0010	0.0006	0.0006	0.0004	0.0002	0.0002
6	0.0013	0.0004	0.0002	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000
7	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

λ = Mean	1.1700	0.9360	0.8280	0.7380	0.6660	0.6480	0.6120	0.5400	0.5220
k	*f*	(expected frequency)*		*k* > 10 omitted					
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	33.771	34.140	33.645	32.812	31.821	31.524	30.864	29.266	28.804
2	39.512	31.955	27.858	24.215	21.193	20.427	18.889	15.803	15.036
3	23.115	14.955	11.533	8.935	7.057	6.618	5.780	4.267	3.924
4	9.015	4.666	3.183	2.198	1.567	1.430	1.179	0.768	0.683
5	2.637	1.092	0.659	0.406	0.261	0.232	0.180	0.104	0.089
6	0.617	0.204	0.109	0.060	0.035	0.030	0.022	0.011	0.009
7	0.120	0.032	0.015	0.007	0.004	0.003	0.002	0.001	0.001
8	0.020	0.004	0.002	0.001	0.000	0.000	0.000	0.000	0.000
9	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	108.810	87.048	77.004	68.634	61.938	60.264	56.916	50.220	48.546

* the expected number of lists featuring a CVC-coincidence in a root, multiplied by the number of items, i.e. 93 *k P* [*x*=*k*]
The expected number of random coincidences = the expected frequency (*f*) divided by the number of lists (*k*).

CVC-sequences with low expected total frequencies (less than ca. 50) omitted to save space ($p < 0.030$).

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THE ABAKWARIGA AND THE ECONOMIC TRANSFORMATION OF THE JUKUN, KINGDOM OF WUKARI, CA. 1650 - 1900*

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1.

Right from the time C.K. Meek published his Sudanese Kingdom (Meek 1969), Jukun history has continued to attract the attention of both local and international scholars[1]. However, the emphasis of these scholars has either been the divine nature of the Jukun political authority (theocratic government) in Wukari, which they considered as unique, or the need to prove or deny the link between the Jukun Kingdom of Wukari and the Kwararafa (or Kororofa) Kingdom in the Benue region (Sterkin 1976: 14; 77). The emphasis on these two themes has left many important issues untouched in the history of the kingdom. One of these is the economic activities of the Abakwariga, which were very important in sustaining the Jukun Kingdom of Wukari during the period under consideration. Our focus on this neglected theme is to call the attention of researchers to the economic history of the Kingdom, which is not yet popular in scholarship.

2.

Abakwariga is a term that has been used by many people to describe the initial Hausa settlers or their descendants in Jukun country. The term has been derived from their traditional mode of dressing, the flowing garment, as different from other ethnic groups. Meek, the pioneer researcher on Jukun history, wrote that the term 'Abakwariga' was a Jukun word for the Hausa, i.e. "the Apa people who wore a robe, or a flowing garment" (Meek 1969: 29).

Banfa and Mahdi Adamu, on the other hand, used the term 'Abakwariga' to describe the descendants of the first Hausa traders who were married to Jukun women in either the Kwararafa or the Wukari Kingdom. According to Banfa, "the Abakwariga are the descendants of the Hausa traders who settled in this area in a very distant past" (Abereoran et al. 1997). A. Mahdi wrote that "the Jukun gave

[1] It is not possible to mention all the scholars. However, we mention just a few of the foreign Scholars that have worked on Jukun history. They included Rubin (1969) and Webster (1993).

the name Abakwariga to all the children of such marriages (that is between the Hausa traders and Jukun women), for though they spoke more Jukun than Hausa they claimed Hausa descent and constantly wore the riga, the Hausa gown, to assent this claim" (Adamu 1978: 39).

The position of these researchers has been supported by the Abakwariga themselves, Umaru Dokusu, one of the Abakwariga interviewed during the course of gathering materials for this study, claimed that anybody "that comes from the North is an Abakwariga".[2] Mallam Usman Sangari, unlike Dokusu, mentioned specific places. According to him, "an Abakwariga is anybody that comes from the North, especially Katsina, Zaria and Kano".[3]

From the submissions of both the academic researchers and the Abakwariga traditional historians, it is possible to identify an Abakwariga. For the purpose of this study, an Abakwariga is not a Jukun, but Hausa descendant in Jukun country during the past centuries.[4] The term is used strictly for their descendants because recent Hausa settlers in Wukari have refused to accept the term. Rather, they prefer to be called Hausa.[5]

The Abakwariga and Jukun relationship has been a subject of debate today. According to one school of thought, the Abakwariga were war captives from the various military expeditions of the Jukun against their Hausa neighbours in the north.[6] According to many Jukun, they were brought down from Kwararafa Kingdom to Wukari when the latter fell.[7]

This position has been denied by the Abakwariga who claimed that they were not war captives or slaves but that their association with the Jukun has been voluntary. C.K. Meek recorded this also:

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[2] Oral evidence from Mallam Umaru Dokusu, an Abakwariga who resides in Wukari. He was interviewed on September 9th, 1996.

[3] Oral evidence from Mallam Usman Sangari, a prominent Wukari citizen and also an Abakwariga. He was interviewed on 13th September, 1996.

[4] This defination is based on the varous submissions of the Abakwariga interviewed and also information from the various documents examined.

[5] I have tried to use the term in a general way to refer to the non-Jukun in Wukari: Some Hausa traders who were recently established there have rejected the claim.

[6] There is a reference to this in C.K. Meek, op. cit. Also, this is the general consensus of most of the Jukun informants.

[7] This is the position of the incumbent Aku (king) of Wukari when I interviewed him on September 17th, 1996 at his palace.

> The Jukun of Wukari claim that the Abakwariga or pagan Hausa speaking residents of Wukari and other Jukun towns are the descendants of Hausa peoples who were carried away by the Jukun from their homes in the North several centuries ago. This is denied by the Abakwariga, who assent that their association with the Jukun was voluntary... In support of this claim they point to the circumstance that the Abakwariga leaders have always been exempt from the rule which requires all subjects of the Jukun King to salute him by throwing dust on their shoulders. (Meek 1969)

Another school of thought has claimed that the Abakwariga were attracted to the Benue region, especially Jukun country, because of the economic potentialities of the place. This has been the position of Mahdi Adamu, whose major work on the Hausa in diaspora has shed more light on the economic activities of these different Hausa groups (Adamu 1978). According to Mahdi Adamu, Wukari was "the only town of major importance in the Benue valley" (Adamu 1978: 40). It was therefore not surprising that there were more Hausa traders in the Jukun State of Wukari than other places in the Benue region.

The Hausa traders always crossed the river Benue at Dampar with commodities associated with Hausa country and exchanged them for the commodities of the Benue region area, especially from Jukunland. The commodities from Hausaland included:

(a) Plain and embroidered Hausa garments which included the Kwashe, the barage and the rigar gwande gowns for men, turkudi and arkilla for both men and women and sanda rish
(b) Horses
(c) Beads, of which the tsakiya, the sumbaruwa, and the tagode varieties were said to be the most popular with the Jukun women
(d) Spices, daddawa/locust bean cakes, onions and tatarnuwa (Abubakar 1989; Adamu 1978; Irmiya 1990).

Some of the commodities from Jukunland included:

(a) Slaves
(b) Mineral salt and antimony. (Ibid.)

It was not only Hausa traders that settled in Jukunland; Muslim clerics and craftsmen were involved too. The clerics came with the objective of proselytizing, while the craftsmen came because of the economic potentialities of the Benue region. They, too, also became integrated into Jukun society by marriage. Mallam Dikko, one of the two leaders of the Hausa in Wukari, was a Muslim cleric.[8]

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[8] Information from Mallam Usman Sangari (see note 3).

It is possible to reconcile the two positions. Oral tradition supported by documentary evidence has shown that some of the Abakwariga were actually not war captives. In fact, the first settlers were traders, clerics and craftsmen who were attracted to Wukari because of the economic potential of the place. Mallam Dikko and Sambo, the first recognised leaders of the Abakwariga in Wukari, were not war captives.[9] The war captives among them were captured during the series of military expeditions of the Kwararafa against the Hausa States of Kano, Katsina and Zaria in the seventeenth century (Webster 1993: 2). These war captives settled in several parts of the empire under the supervision of Mallam Sambo and Dikko (Adamu 1978: 39).

Recently, there has been renewed focus in the academic world on the Jukun/Abakwariga relationship, Professor Erim and others have not only tried to establish the fact that the legendary Kwararafa empire was established by the Abakwariga, but they have also asserted that Wukari itself was established by them. Erim suggests that:

> ...there are indications that Kwararafa embraced a multi-ethnic society and while today the name is principally associated with the Jukun, it seems unlikely that they were either the founders of the confederacy or its rulers until relatively recent times. From the available source of admittedly slim evidence, Kwararafa was probably founded by the Abakwariga, a name usually associated with the non-Muslim Hausa. (Sterkin 1976: 27)

The position of Erim is supported by many of the Abakwariga informants at Wukari. According to Mallam Usman Sangari, Wukari was already inhabited by the Abakwariga before Aku Katakpa came to Wukari.[10] Umaru Dukusu, another Abakwariga mentioned that as soon as Katakpa's entourage came, the Abakwariga leaders - Sambo and Dikko - relinquished political control to the Jukun and migrated to other places, insisting, however, that their subjects should remain in Wukari. This statement should not ordinarily be taken as presented above. Possibly, the political control of Wukari was forcefully taken over by the Jukun ruling class from the Abakwariga after the demise of the Kwararafa Kingdom.[11]

The date and places where the Abakwariga migrated from in Hausaland still remain a matter of conjecture. From the evidence at our disposal, the Abakwariga

[9] Ibid.

[10] Information from Mallam Usman Sangari.. See also Webster (1993).

[11] This is likely to be the case because as soon as the Jukun ruling class arrived the Abakwariga leaders left. There are also some traditions that give the impression of political struggle between the Jukun ruling class and the Abakwariga leaders. The Abakwariga leaders left inAnnoyance at the Jukun leaders.

must have been established in the Benue region in the fifteenth century. This was the period that a regular exchange of commodities between Hausaland and the Kwararafa empire began (Adamu 1978: 39; Hamman 1985:35). Some of these Abakwariga must have migrated from Kano and Katsina. These were two great commercial and religious States in Hausaland during the period under focus. (ibid.)

The Abakwariga, in spite of their long period of establishment in Jukun country, have refused to be influenced by their Jukun overlords, Saad Abubakar wrote:

> ...The Abakwariga had never been assimilated into the Kwararafa culture. In both Kororofa and Wukari they lived in distinct quarters, each group headed by its leader and maintained Hausa as a first language. They also understood and spoke the Jukun language. (Abubakar 1989)

To the present day, the Abakwariga have separate quarters in Wukari, different economic activities and social functions from the Jukun socio-cultural activities. In spite of these differences, they still recognise the overlordship of the Jukun, and some, in fact, played prominent role in the palace of the Aku.[12]

The Abakwariga, as a result of their links with the Hausa States, especially Kano, continued to dominate the economy of Wukari, and indeed were, in a way, responsible for sustaining the Jukun Kingdom of Wukari at the height of its power. The Abakwariga role is comparable to the Wangara in Borgu, who, through their various economic or commercial connections succeeded in bringing prosperity to Borgu before the imposition of colonial rule in Nigeria.

3.

A review of the indigenous economic structure of the Wukari Kingdom is very important for our appraisal of the Abakwariga factor in the history of Wukari. Before the review, a summary of the history of the Jukun Kingdom of Wukari is very important.

Wukari emerged as the spiritual centre of the Jukun after the fall of the Kwararafa Kingdom in the Benue region. Aku Katakpa was credited with having established Wukari and becoming the first Aku (king) to reign here. (Abereoran et al. 1997)

A number of factors were responsible for the decision of Aku Katakpa and others to move out of the imperial capital of the Kwararafa Kingdom. One of these

[12] Some Abakwariga played a prominent role in the Aku's palace. For instance, Mallam Usman Sangari is currently the right hand man of the incumbent Aku.

was the political rivalry between Katakpa and his brothers. This factor was, however, not as strong as the misfortunes (ecological and economic) that befell the State. The economic factor prompted the mass movements from the imperial capital and the establishment of the Jukun States of Keana, Awei, Wase Tofa and Wukari. Out of these new States, Wukari became the most important. All these States accorded Wukari the respect and reverence accorded to the erstwhile Kwararafa State. (Ibid.)

Wukari, like the erstwhile Kwararafa Kingdom, was able to asset control over the non-Jukun States through its cultural influence. Neighbouring groups were said to have adopted some of the Jukun socio-political institutions. Indeed, permission was always sought from Wukari by these non-Jukun groups before they could appoint their own people to certain traditional positions (Agbo Alago 1984). This was the situation until the encroachment of the Fulani in the nineteenth century. The coming of the Fulani imperialists put an end to the cultural dominance of Wukari.

Agriculture was the primary occupation of the Jukun. Three reasons could be cited for this. Firstly, land was available and free. Though land was communally owned, respectable families had their own land areas which were allocated to family members for the purposes of cultivation. Secondly, labour was available in abundance. The family, as a unit of production, provided the labour. However, when an individual possessed wealth, communal labour could be mobilised for such a person through the Aku. But such an individual had some responsibilities to those who participated in communal labour. Thirdly, there were favourable ecological conditions, especially adequate rainfall.

As a result of these factors, agriculture was the most important occupation in the kingdom. Indeed, both men and women were involved. The women had their own farms, normally very close to their houses (Kissen) and grew mostly vegetables, while their male counterparts had their farms in the bush (bushfarm or Afu or chen) (Irmiya 1990). The high rate of participation in agriculture must have informed Mammoud Hamman to conclude that:

> Agriculture was the dominant economic activity among the people of the Benue Basin. (Hamman 1985)

Most of the Jukun, however, combined agriculture with some other occupations. Hunting, for instance, was done at leisure. Jukun living in the riverine areas were actively involved in fishing and canoe-making. The mining of salt was another important occupation of the Jukun, outside Wukari. The mining was, however, strictly controlled by the Jukun administration (Irmiya 1990).

The economic activities of the Jukun were also important for sustaining their kingdom, but in comparison with the economic activities of the Abakwariga, this role was very minimal.

4.

The Abakwariga were involved in industries and commerce. Most of the industries for which the Jukun kingdom of Wukari was central were actually controlled by the Abakwariga. The blacksmithing and iron smelting industries, which constituted the backbone of the Jukun agriculture and warfare, were actually introduced and controlled by the Abakwariga. According to Irmiya Elawa, Abaka Mamman, an Abakwariga from Kano, was the founding father who migrated to the Kwararafa kingdom between the sixteenth and seventeenth centuries (Irmiya 1990: 44). The importance of this industry for the economy of the Jukun should not be underestimated. It was responsible for providing the means of exchange in the kingdom, called the dankyereku, a small, round-shaped piece of iron (Irmiya 1990: 45). In other words, the Abakwariga blacksmiths controlled the means of exchange in the kingdom.

Another major industry which Wukari was well known for was the textile and dyeing industry. Arnold Rubin, in his Ph.D thesis on "the Arts of the Jukunspeaking people of Northern Nigeria", writes about the popularity of the industry. According to him "... weaving cloths and dyeing were undertaken on a large scale and on a cooperative basis (Rubin 1969: 56). Elawa Irmiya also points that "Wukari cloth was in fact reported to have been of excellent quality and the Jukun are said to have particular kind of cotton known as worzi (Irmiya 1990: 48). Barth also supports the above writers when he wrote in 1857 concerning the textile industry thus:

> ...the inhabitants of Kororofa are celebrated all over this part of Africa (Central Africa) for their cotton cloth which is said to be of very fine texture but also very narrow, being only the breath of two fingers. (Whitford 1967: 197)

Tradition also confirmed the popularity and the high demand for Wukari cloth in the middle Benue region and in the Bamenda area of the present-day Republic of Cameroon.[13] For instance, Daurarere (Abut Setse), a specially designed cloth by the Abakwariga was valued by the political leaders in the region. Indeed, it has been a part of the regalia of the chieftaincy in Bamenda region of Cameroon to the present day.

Also related to the textile industry was the dyeing industry. Wukari was noted for this industry. Because of the expertise demonstrated by the Abakwariga in this

[13] Oral evidence from Mallam Usman Sangari at his residence in Wukari.

industry, many people were attracted to Wukari to get their clothes dyed according to their own different taste.[14]

These two related industries were introduced and controlled by the Abakwariga. The textile industry was said to have been introduced to Wukari in the seventeenth century from Kano by the Abakwariga; the same is true of dyeing. Kano, in the period under discussion was an important centre for textile and dyeing industries in the whole of central Sudan. The Abakwariga derived their materials locally. Cotton was locally grown by the Jukun and the material used for the dyeing, Barba, was also derived locally.[15]

It was not only in industries that the Abakwariga were involved, but also were involved in trading, especially the external long-distance trade. In this they had an advantage because of their Hausa connection, especially with the Kutumbawa Abakwariga. It is important to mention that the Hausa at that time had established themselves in commerce throughout western Sudan and they were actively participating in the Gonja Kolanut business (Lovejoy 1980; Adamu 1978). The Abakwariga exploited all the trade channels established by the Hausa to export and import good into Wukari and outside. Below are some of the goods involved and the Stations where they were exported or imported.

A. Exports From Wukari

Items	Station
Textile	Bamenda
Salt	Hausa and Borno
Slaves	Hausa and Nupe

B. Imports To Wukari

Items	Stations
Horses	Hausa/Borno
Spice	Hausa/Borno
Leather	Hausa/Borno
Brass/Copper	Nupeland
Natron	Borno/Hausa

[14] Ibid.

[15] Ibid.

Comment: These were exchanged or bartered with other goods. However these were re-exported from Wukari through the Cross River Valley to the Niger-Benue Confluence area.[16]

The economic activities of the Abakwariga brought about an influx of traders to Wukari. Through the toll centres established by the Jukun political authority, revenue was collected to pay the bureaucracy and to finance some of the kingdom's activities.[17] However, there is no statistical data to show the percentage of the revenue directly or indirectly derived from the Abakwariga, but judging from oral accounts, it must have been considerable. This factor must have been responsible for all the privileges given to the Abakwariga in Wukari.

5.

The contribution of the Abakwariga to the growth of the Wukari kingdom at its height of power cannot be underestimated. Through their various economic activities, as highlighted above, they brought wealth to the kingdom. Indeed, the activities of some were recognised and acknowledged by the ruling class in Wukari. many of them became State officials at the palace and therefore became integrated into the political system.

However, it has not been possible to give statistical data to support our point in this paper,[18] but the activities of the Abakwariga had attracted Hausa trading class to Wukari and indeed, there were more Hausa in Wukari than in any of the kingdoms in the Benue region.

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[16] Compiled from different sources, both documentary and oral. These documents have been cited above.

[17] Some of the activities included rituals and festivals, such as the Puje festival.

[18] Lack of statistical data is one of the problems of pre-colonial economic history.

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THE DEROGATION OF MASCULINITY IN YORÙBÁ PROVERBS

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INTRODUCTION

Sexism is among the foremost issues receiving new emphasis within and outside academic circles today. In particular, extensive effort has been made towards the analysis of gender relations, or the status, problems and prospects of women in human society (Ahonsi 1995.85; Smith 1987: 17; Yusuf 1994; Oduyoye 1983: 253). Moreover, the structures, philosophy and objectives of this on-going rethinking are manifold, complex and diverse. For example, feminists have opined that both in practical terms and in linguistic manifestations, women are unduly and largely made to be subordinate to men. The imbalance gender participation in the global socio-economic and political affairs, according to the feminists, cheaply confer the status of key players on men. They therefore frantically propose "women conscious regotiations of their subordinate status to men", in all facets.

For example, they point to the fact that this subordination is amply demonstrated by masculine morphemes being made the roots of feminine words as in *princess, actress, matron, prophetess* etc. Also, they challenge matrimonial regimes and also criticized almost all relevant long standing cultural systems bordering on gender relations and status.

One direct result from the above renaissance is that attempts have been made to degenderize English (a world language) and to desex the thoughts which are manifested in language structures and uses (Yusuf 1988: 87). Moreover, proverbs, and in particular Yorùbá proverbs, are believed to be misogynous, i.e. anti-female (Mieder 1985; Yusuf 1994; Yusuf 1997). So emphatic and ardent is this belief that it leads to the utter neglect of the analysis of the anti-male nature of the proverbs in the language. The attempt of this study therefore is to show the other side of the coin by expounding how the males are being demeaned in a collection of Yorùbá proverbs.

As it would be seen, the present paper radically deflects from the misogynous perspectives and analysis. It therefore sets forth to highlight the generally (imperceptible) gnawing nuances of meaning on masculinity as portrayed in some Yorùbá proverbs. This position is taken in view of the fact that we have logical and copious arguments to posit that almost in all important instances, it is the female-folk that actually occupies a sheltered-side judging from the meaning potentials and interpretations of some masculine metaphors in Yorùbá proverbs.

1. The Yorùbá Proverbs

A cursory look at Yorùbá proverbs reveals that the chunk of them are drawn from the natural world of plants, animals and natures against the backgrounds of their relationships with man, or the latter's perceptions of those elements' characteristics and activities (Finnegan 1970: 396ff; Thompson 1980: 85). Not only because they tap the elements of nature, proverbs as a genre are also found to flourish gracefully among generations because its power, structure and permanence transcend that of the ordinary speech. It is obviously something other than ordinary communication - a symbolic one. Proverb is perhaps the only language at our disposal to express not merely the appearance but also the content and quality of our experience and philosophy in succinct metaphorical senses (Finnegan 1970: 399).

While describing a similar component of Yorùbá world view however, Abímbọ́lá (1976: 195) posits that:

> Ordinary objects and creatures of nature serve as projections of human action and behaviours.

The above postulate illustrates the dynamics and mechanism of metaphor-in-proverbs as an extension of human capacity. In other words, not until when viewed as a veritable symbolic communication can proverb be relevant to the affairs of man and bear direct link to specific life contexts. This is because the instrument of metaphor which it amply uses demands an ability to compare, contrast and understand the outputs of two different but somewhat related entities which ultimately stand for things, states or activities. The semantic structures and the complex effects of the fore-going are almost always difficult to explicate exhaustively. For one reason, the meaning potentials which they entail connote an amalgamation of cultural, experimental and sensory imprints gathered over a lifetime; and this varies in contents and complexities from one person and one generation, to the other. So, more often than not, there used to be more surplus or potential meanings untapped. These facts intricately justifies the array of interpretations adducible to our corpus is section 4.

Another dimension to this discussion is the enduring effects of proverbs on the people's outlook. The control and regulation of Yorùbá society can be said to be largely due to the fact that:

> The metaphor that we accept consciously or unconsciously can become a strong influence on our thinking and action. (Schlauch 1965: 177).

For example, through the activities of their usage, understanding and appreciation, there can emerge a model of the social world; model of the individual personalities and of the relations that hold between the individual and society

(Culler 1975: 189). How gender and sexist thoughts foreground the realities of Yorùbá sociological word-view therefore need to be explicated. This shall be taken up in our subsequent discussion.

2. Defining Gender in Yorùbá

Since Yorùbá language has no grammatical gender, the language does not inflect to lexicalize the category as in inflectional languages such as Latin, German and Hausa. So, gender in Yorùbá language sense must be understood to simply mean masculinity and femininity only.

From the morpho-semantic point of view, however, the language semantically conveys masculinity and femininity either through the use of inherently gender-coded word or by juxtaposing such coded genitive to the head word; but certainly not by way of inflection. Examples of such gender - meaning genitives are *akọ* (male), *abo* (female) for animates - human and non-human. Other gender words are *ọkùnrin* (male) and *obìnrin* (female): for human only. *Àkùkọ* (cock), *àgbébò* (hen), *àgbò* (ram), *itú/òbúkọ* (he-goat) and *àgùntàn* (sheep) are other animate gender examples.

The observation made by Yusuf (1988: 91) that the fact that a language does not lexicalize grammatical gender does not symbolize non-sexist thought is an undeniable truth. As we have had cause to expound it elsewhere (Ogunwale 1995), the Yorùbá views of maleness, even when used in transferred or metaphorical senses are that he should evince sterline qualities. This explains why ideas and functions such as efficiency, toughness, inviability, sharpness, resistance, hardness, grandeur and similar sorts of qualities are ascribed to male species not only in the family of plants and animals but also in their various secondary referents (Ibid). The picture of masculinity reflected through some Yorùbá proverbs on this however, is different; as it would be shown later in this study.

The foregoing ascribed notions, more often than not, ultimately turn out to put the masculine folk at undue disadvantage as they make them readily susceptible to brute exploitations. This situation is evident not only in Yorùbá proverbs but also noticed in some collection of idioms and metaphors which together produce negative semantic nuances on masculinity.

For example, (1) is believed to be desirable while (2) is not. In fact, (2) is contextually anomalous. We however leave out further illustrations of corpus of these forms in the present study because they are none-proverbs.

1. Odún á yabo o
   May new year be (feminine) prosperous.

2. Odún a yakọ (-)
   May the new year be (masculine) tough, rough, difficult.

3. Analysis

The proverbs that offer insights to the negative semantic nuances on masculinity shall be broadly categorised into two in this study. Our classification is guided by the coherence of the facts deducible in each of them. These are:

(3.1) Attribution of negative characteristics to the male;

(3.2) The presence of negative masculine metaphors or personification.

3.1. Attribution of Negative Characteristics to the Male

No doubt, the role played by an individual and his thought patterns are coterminous with his stratum in the structure of the society in which he lives. In other words, the socioeconomic and political worth of that individual is largely determined by his class. The sociology of human race, cross-culturally, however, reveals that gender is among the potent instruments of such social stratification. And as it were, the class distinction articulated in (3) below clearly depicts masculine as being inferior to feminine.

3. Ìyá ni wúrà, baba ni díñgí
   Mother is gold while father is (mere) glass.

The foregoing proverb is a complex metaphor which has two independent but comparable vehicles and propositions. It should be noted that the co-presence of the two mineral-objects in the metaphor which are of remote resemblance in character, texture and use is not fortuitous. Rather, they call attention to see first, how they are alike and second, to how one is unlike the other. Another aspect to it is that they are scored according to their perceived values. Certainly, mother is the opposite of father. That favourably satisfies the copresence of the two elements in the tenor aspects of the complex metaphor. But the same cannot be said of the semantic structure of the vehicle aspects where glass does not antonymise gold. A more appropriate object could have been silver, considering their usages in 'golden age' and 'silver age' respectively.

The fragility of glass seems to play masculine down and offers to explain, in practical terms, the masculine relative shorter life-span. This is also in negation to the well-known saying that: Women are weak vessels. And more importantly from the child's perspectives, mother (gold) is perceived more precious and more valuable. Whereas, the object of glass could only be said to merely mirrors the identity, (father). Our argument here therefore is that (3) deliberately ranks mother more valuable and higher than the father. But this perspective is not often articulated in any discussion on sexism.

Our next illustration exemplifies where a demeaning masculine metaphor is also used to elicit a proposition of negative values on the characteristics of masculine.

4. Eni tó gbọ́n tó lẹ́ni kan ò gbón, akọ wèrè ló ñ ṣe onítòhún.
   A (self-asserted) wise-man who refuses to acknowledge the wisdom of any other person is being troubled by serious (masculine) sort of malady.

First, the fact that the foolishness of a self-asserted wise-man is metaphorised to be of masculine nature is considered not only to be despiteful but also deemed derogatory to the male-world. In another dimension, the mere reference of hebephrenic schisoprenial (serious madness) to the masculine is very degrading. And third, its structural position in the metaphor as the vehicle which connotes undesirability is also demeaning to the masculine-folk.

A more enigmatic masculine metaphor is to be found in (5) where *òkóbó* (eunuch) which is masculine, is used. Whereas, the whole gamut of Yorùbá proverb is not only silent about its feminine counterpart - *akíríboto* (a woman whose vagina is too tight for sexual intercourse) but also do not present them negatively.

5. Òkóbó kìí bímo sí tòsí.
   A eunuch does not claim to have a child near-by.

(5) points to the fact that a false - claimer is always so crafty as not to make a claim that can be easy to debunk so as to be able to talk above the heads of his audience. Our argument then is why should masculine label be used to symbolise a false-claimer. This appears to suggest that Yorùbá proverbs do, with brute force, suppress the values of the masculine.

Furthermore, in a situation where there are two circumstances of hardship and comfort, the masculine is always deemed appropriate for the hardship[1]. Witness our next illustration for evidence:

6. Ibi tí ó bá le là á bá ọmọkùnrin.
   Men are to be found in difficult circumstance.

The opposing conditions of the masculine being fragile as illustrated in (3), and at the same time being expected to struggle and survive in hard circumstances as implied in (6) unequivocally crystallize the dilemma and the precarious situations

[1] Note that a War-Chief is dubbed *Balógun* (i.e. Baba-ní-ogun - (father at war) not mother at war - a difficult and deadly situation.

of the masculine. Little wonder, their life is full of apprehensions and obsessions with its resultant shorter life-span.

And also in (7), man is considered un-amiable and choleric:

7. Akọ àparò ní ké tìjàtìjà
   It is a male bush-fowl that shouts in annoyance.

The foregoing proverb presupposes that the feminine on the other hand are gentle, peace-loving and radiant. Whereas more often than not, converse holds considering how they are depicted in Yorùbá folktales. Then, what an imposing display of misrepresentation!

Further, considering the various roles played by women in Yorùbá folklore, one would agree to the fact that our next corpus veritably suppresses the truth and castigates the personality of the masculine.

8. Àkùkọ ñlá kì í jẹ́ kí kékeré ó kọ
   A big cock always inhibits the crowing of the rising ones.

Any keen observer would note that crowing; be it in the dawn or whenever, is usually chorused in harmonious succession where there is a flock of cocks. And in practical life, men tend to co-habit more peacefully than do women found in the same domicile. The strange idea expressed in (8) therefore is nothing but mere derogation of the masculine characteristics and behaviours.

The situations where the masculine specie is metaphorised to symbolise an inhibitor as in (8), a bad tempered as in (7), a false-claimer as in (5), and so on, emphasise the claim that male is depicted as sub-standard stock in a set of Yorùbá proverbs, just to exalt women above them on the other hand.

As a matter of fact, the masculine species are indecently less valued considering the usages of the masculine labels in the following proverbs:

9. Eni tí ò sí nílé ni ewúrẹ́ rẹ bí *òbúkọ*
   It is the goat of someone who is away from home that produces billy-goat offspring.

The implication of the above proverb is that male goat is of lower value because it cannot generate offspring like its female counterparts. The context of this proverb is to be found in a situation where one is marginalised due to his/her ineptitude or absence. In fact, (10) summarizes it all more succinctly; and pungently, too.

10. Akọ ológbò mówó rá
    A male cat is a lost unprofitable venture.

Further logical evidences abound in support of the claim that whenever masculine species are desired, they are considered only to be made victims of exploitations.

And in fact, whoever genuinely desires them is despised and accused following the semantic import suggested by our next illustration.

11. Aronilérò tíí fún ni lákọ ajá sìn
    It is only an evil designer who is poised to delimit one's success that would offer a male dog for domestication.

The assertions in (9), (10) and (11) are derogatorily made definitely because masculine species cannot generate offsprings directly like their female counterparts - their indispensable pioneering inputs into the process of procreation, not-withstanding. Their efforts are often misconstrued.

For instance, a male goat/dog is dubbed a vagabond in its efforts to hunt for sexual partners which will ultimately lead to procreation. This situation is couched in negative metaphor as evidenced in the following corpus:

12. Òbúkọ/akọ ajá abìnrìn-àrè lẹ́sẹ̀
    A billy - goat/he-dog - wandering lot.

The context of (12) is whenever anybody is wandering loafingly. He or she is always referred to as *akọ ajá/òbúkọ abìnrin-àrè lẹ́sẹ̀* - a wandering lot of billy goat's/he-goat's calibre. This definitely gives masculine away as a victim of derogation. (13) offers a more direct repugnant condemnation.

13. Òbúkọ dé, òórùn dé

A billy goat has come with its repulsive odour. The above adage is contextualized where the presence or participation of a new comer generates instant ill-feelings, and condemnation. So, masculinity is here being used as in several other examples, to symbolise ill-feelings, condemnation, undersirabilities etc. Next, we shall focus on where masculinity is personified in different dimensions to symbolise derogation of various sorts.

3.2 The Presence of Negative Masculine Personification

The lexical use of more direct references to masculinity is seen at work in the items of proverbs to be examined presently. Incidentally, most of the corpora in this sub-section encode both human and inanimate protagonists unlike those in the preceding sub-section which principally present animate protagonists. One other significant peculiarity of the corpus in this sub-section is that there exist no

feminine protagonists that could stand as counterparts to them in the whole gamut of Yorùbá proverbs. And structurally, the proverbs exhibit similarly pithy forms.

It should be noted however, that the corpus express and expose equivocally the precarious status of men. This is because one may be tempted to accord a higher dignity to fatherhood considering his being covered with facade of importance as sources of other elements in the proverbs.

Although we have said it earlier that glass (father) mirrors the identity but it will amount to utter misconception of ideas to use just the father as the source. Mother could have otherwise been more appropriate considering the fact that:

It is the wool prepared by the mother that her offsprings would spine (òwú tí ìyá gbọ̀n lọmọ yóò ran). Lew personification of masculinity is evidenced in the following set of proverbs:

14. Àṣejù baba àṣetẹ́
    Obstinacy is the father of disgracefulness

If obstinacy is considered the source of disgracefulness, the question is, why should father be made to symbolise the source, taking cognizance of the role of a mother in bringing a child to life. Though (14) is not fully realised as "Àṣejù baba àṣetẹ́, ìwọ̀ntunwọ̀nsì ìyá àpọ́nlé" (Obstinacy is the father of disgracefulness *and moderacy the mother of honour*) but it is implied. And even if it is not, the masculine has already been sordidly implicated. It appears therefore that motherhood is being exalted and fatherhood being debased. Masculine is also scornfully used to personify disobedience in the following proverb:

15. Àìgbọràn baba àfojúdi
    Disobedience is the father of insolence.

In the foregoing, masculine is being personified to symbolise illicit behaviours. Further evidence are also given below:

16. Ojúkòkòrò baba òkánjúà
    Covetousness is the father of avarice.

(16) could either be pointing to the fact that covetousness is worse than avarice or that the former is the basis of the latter. Whichever interpretation is tapped, the use of masculine there is contemptuous. Also in:

17. Alágbára-má-mèrò baba òlẹ
    An unscrupulous - powerful fellow is the father of a lazy individual.

The claim is being made that unscrupulousness is worse than laziness; using masculine label to convey the comparison. Others in this class are:

18. Ààlọ̀ àṣejù baba ojo
    To much of crinching is the father of cowardice.

Since the two human behaviours - excessive crinching and cowardice - are undesirable, the masculine being implicated there is derogatory. The same truth holds for (19), (20) and (21).

19. Alápá - má - ṣiṣẹ́ baba òlẹ
    A loafer is the father of the indolence.

20. Àgbowóòkà baba àsúsan
    Receiving money on behalf of someone and failure to cross-check the amount (will lead to) is the father of incurring debt on oneself.

21. Àìlówó-lọ́wọ́ baba ìjayà
    Poverty is the father of obsession.

As said earlier, the set of proverbs presented here compare two undesirable human behaviours and identify their sources and superiority; implicating masculine label in the structure. The context of each of them is foregrounded in the first human behaviours presented in each case. Going by the insinuations deducible from the foregoing corpora therefore, it becomes obvious that it is when indecent, undesirable human behaviours like disgracefulness, insolence, disobedience, indolence and absurdities are to be sourced that masculine specie readily becomes the candidate. It can therefore be established that Yorùbá language in its usage forms, especially as evidenced in their proverbs, is not wholly fair to masculinity.

4. Conclusion

This study casts a different look at gender relation and sexist thought using negative masculine metaphors in Yorùbá proverbs as data base. Our analysis and findings however, show that each of us is perpetually and inevitably contains in one another - male in female and female in male. After all, there are a number of proverbs where masculinity is exalted too. Thus in actual sense, it will be completely incongruous to assert that the language is misogynous in its present usage forms. The fact is that "men are themselves trapped in the same tribal system of social controls which they safeguard in the name of tradition" (Smith 1989: 17).

However, if the smouldering grumbling and protest - voices of men have not gained sufficient prominence, their complacence should not be taken for mediocrity. It is based on their recognition of the fact that, involved in the whole human life, there are things to suffer, things to endure, things to overlook and of course, things to enjoy.

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