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found ways, extending far beyond immediate economic decisions concerning exports or investments. This paper discusses the ways in which rural-urban interdependence structures social ties within a community of migrants, nonmigrants, and former migrants in Kariobangi Estate, Nairobi, Kenya, and Kisa location in Buluyia, Western Province, Kenya.

Most rural areas in Kenya and East Africa, as in large parts of sub-Saharan Africa, are characterized by dual—rural and urban—subsistence bases, and patrilineal, patrilocal forms of descent, residence, and inheritance. Most rural homesteads can provide a subsistence base for all or part of its residents, and most men own or share in important rural resources. The kinds of rural-urban sociability and migration processes which are considered in this paper are usually dependent on the possibilities of dual residence, and the rural and urban alternatives which occur when men have joint options in city and country.

The Process of Rural-Urban Migration

Consider the decision process gone through by men and their families in a rural area prior to migrating to the city in search of work. At one extreme there may be only one urban job available on the average for every 1,000 homesteads in a particular region. Regardless of qualifications for employment, any one man is highly unlikely, given this ratio of jobs to homesteads, to ever find work in the city. At another extreme, there may be as many jobs available in the city as there are rural homesteads with eligible men in them. In this case, any man going to the city would be guaranteed employment. In most developing countries, including those of East Africa, the situation is much closer to the former than the latter extreme; there are typically many more homesteads with eligible men desirous of wage employment than there are urban jobs available. The rate of attachment of men and homesteads to urban jobs in a given rural area, then, depends primarily on two factors: (1) the availability of all types of urban jobs; and (2) the number of homesteads with men eligible for and deciding to seek employment in any of the kinds of jobs available.

The likelihood of a particular male homestead member leaving the countryside and coming to the city depends on two factors: (1) his own perceived probability of success in obtaining employment in the town; and (2) the nature of the social and economic support available to the migrant in the country and in the city. The first factor is an estimate by the potential migrant of the possible costs and benefits of the move, such as pay rate differences, relative job opportunities, social costs, and other factors. The possible success in finding employment is not independent of the nature of urban social support, however, since one important way migrants can obtain work is through clan and other contacts in the city. If the potential migrant can count on a place to stay, food,

The Structure of Sociability: Urban Migration and Urban—Rural Ties in Kenya¹

Thomas S. Weisner
*Departments of Psychiatry and Anthropology
University of California, Los Angeles*

ABSTRACT: Rural-urban migration in Kenya often involves men who participate in both city and country economies during their life cycle. These ties are facilitated by patrilineal, patrilocal horticultural economies which continue to offer rural alternatives to both urban migrants and rural returnees from the city. Such a periodic migration cycle is likely to lead to strong rural-urban social ties, rather than isolated urban enclaves or very different urban and rural interaction patterns. Data from a sociometric analysis of a matched rural-urban network sample indicate that (1) such rural-urban networks are highly interconnected; (2) three dimensions structure social ties within the network: clan affiliations, social status indicators, and urban or rural residence (in order of importance).

Introduction

Rural-urban ties in sub-Saharan Africa have been a long-standing topic of interest for students of urbanization, social change, and applied research fields. Five recent reviews of research in African urbanism and migration gave considerable emphasis to rural-urban ties (Björnan 1971; Epstein 1967; Hance 1970; Hanna and Hanna 1971; Mitchell 1968). Migrants to African cities are well aware of this interrelation of rural homes bases and urban wage-paying centers. For most Africans, the question is not to which self-contained social system, urban or rural, they owe allegiance. Rather, the more immediate, socially and economically relevant issue is: How can social relationships be maintained between rural and urban sectors of a national and international system? How can dual economic pressures between town and country be optimized? Most growing African cities depend on the import of labor from the country, and many rural areas increasingly depend on remittances of cash from urban centers. The national and international decisions of elites influence both urban and rural sectors in pro-

and travel assistance from kinsmen already in the city to which he is planning to go, the insecurity and costs to the migrant himself are clearly less, and the move is easier. (Of course, should the migrant prove successful, he may in future be called on to provide this same assistance to others.)

This view of the migration process differs from both "push-pull" and "acculturation" models of the process. Dividing the determinants of migration into pushes and pulls implies an artificial separation between two settings — urban (pull) and rural (push) — which does not reflect the real decision process. For example, the nature of urban social support arises from prior rural social organization (localized patrilineal clans, for instance, or common language), while the nature of the migrant's preparation depends on national and international development in his area (such as type and availability of schooling). Every man potentially eligible for work in either the city or the country has some probability of success in obtaining a job, and thus every man participates in the decision process to some extent, if only by electing not to go. From the point of view of an individual man, who is part of a homestead in a rural community, the decision to migrate to the city (or to return to the country from the city) is made according to complex judgments and sets of personal circumstances within both rural and urban contexts. From the total rural community point of view, however, ties to the city are continuous and part of a national and international economic relationship. The number of available urban jobs for example, depends on foreign or domestic investment in the urban wage economy, on the prices of agricultural export commodities, and similar factors (e.g., Seidman 1972). The type of urban job — whether skilled, unskilled, permanent, cyclical, and so on — also depends on decisions about work and industrial development far removed from the individual decisions made within rural homesteads by individual working-age men. Although these economic circumstances are far from the control of the rural community and individual homestead, they are nonetheless very important in determining social ties between city and country.

Particular homesteads and family units that are part of the rural community differ over time in their degree of urban attachment. Some homesteads may never have members migrating to a city; some homesteads may always have members absent, working in a town. Most homesteads will have at different times or simultaneously urban migrants, returned or former urban migrants, and those who have never migrated.

All the homesteads in the rural area containing men eligible for urban wage employment constitute a pool of migrant-eligible homesteads. Similarly, the men resident in these homesteads constitute a group of migrant-eligible men. This pool of eligible men includes men resident both in the city and in the countryside — in other words, men in the city actively attempting to find a job as well as those who have succeeded, and those in the rural areas who have not tried or have tried successfully and returned, or tried and were unsuccessful. Within the

migrant pool, then, there are actual migrants resident in a city, and potential migrants resident in the rural community. Some of the actual migrants are employed and some are not; and some potential migrants have never been employed and some have been in the past. McElrath (1968) has referred to these statuses as "perpetual newcomers" to the city, and "peasant returnees" to rural homes.

The migrant pool would be sharply and permanently divided between actual and potential migrant status if no man successful in finding urban employment ever left or lost his job in the city, retirement rates were small, and the ratio of jobs to men remained stable. On the other hand, the rural-urban migrant pool would be homogeneous if there was considerable turnover and mobility through time between city and country among members of this pool, and if the ratio of jobs of men remained stable or increased slightly. There is likely to be a mixture of the three life-experience patterns: (1) some men spending much of their life as actual migrants, but retaining a rural home base; (2) others as potential migrants only, never going to the city; and (3) most dividing their working lifetimes between actual migration and potential status in the rural area.

The existence of a large, migrant-eligible pool with mixed patterns of actual and potential status over time has important consequences for the families and homesteads of migrants, as well as for the social relations of the men themselves. Most potential migrants will have kinsmen who are actual migrants, and vice versa. The immediate family of the actual migrant may similarly be divided between members living with the migrant in town, and those still living on the rural homestead. The rural-urban migrant pool of men is thus paralleled by similar groups of spouses, children, and those not directly migrating themselves, but strongly influenced by those who are migrating or are in the pool. This rural-urban network of kin is the primary mechanism of social support for migrants, whether actual or potential, urban or rural resident.

These rural-urban networks are not named, formally constituted, or clearly bounded. They can be studied only by using interactional data such as visiting, mutual knowledge, and friendship as estimates of enduring structural ties. These networks are not ego-centered, nor are they an inclusive or total network (Barnes 1972; Mitchell 1969). Such networks are useful "action-sets" of relations for individuals, and also have powerful effects on the structure of social relations among its members.

This rural-urban network pattern assumes a certain set of facilitating conditions, which are prevalent in much of sub-Saharan Africa. These circumstances include rural economic dependency and low wages and numbers of jobs relative to neocolonial urban enclaves; the maintenance and availability of rural homesteads, including some horticultural and pastoral subsistence activities as alternatives to migration; maintenance of cultural and language similarities between city and country residents; extended, joint, or expanded kinship and

residential organization. Given at least some of these conditions, similar in many ways to the "house-property complex" described by Gray and Gulliver (1964), the rural-urban kin network is a frequent consequence of the migration process outlined here.

An Ethnographic Case Example

Nathaniel is a pseudonym for a Muluia currently living in Nairobi. Some aspects of his case have been altered to protect his identity and to bring out some important points relevant to the life cycle of rural-urban migrants missing from his own history. Nathaniel's life cycle illustrates in ethnographic detail the kinds of adaptations within families and between economic resources typical for men who are part of a rural-urban network of kin.

Nathaniel is 38 years old, with one wife, Grace, and 4 children. Two other children died in early childhood. He is the second of his father's three sons. He has two sisters as well, one older and one younger. His older brother also works (in Nakuru) as a machine operator for a small printing firm; the younger is a farmer in Kisa in the father's homestead. One of his sisters married a man who works in Mombasa, and she travels through Nairobi sometimes on her way to and from the coast for visits. Nathaniel lives in Karlobangi and has been employed for the past 5 years as a driver for a large British-owned firm in Nairobi's industrial area. He has completed 8 years of primary school. He earns around 4.10/-KShs (\$63) a month, although overtime and holidays can affect the precise amount. Nathaniel's income is well over the median in Karlobangi; however, he is chronically short of funds and in financial difficulties much of the time.

Nathaniel moved to Karlobangi in 1967 from Eastleigh, a private housing area a mile away, where he shared two small concrete rooms with two other men. He has his own 12' X 12' cement-floored, mud-plastered, tin-roofed room in Karlobangi, but has been sharing it for the past 6 weeks with a father's brother's son who is in search of work. Nathaniel moved from Eastleigh because "I wanted a little more room for my own family and I could not find a room nearer to my job." He pays Kshs 60/- (\$8.28) a month in rent. A toilet and washing area are shared with three other tenants in identical rooms in his building. Cooking is done on a charcoal brazier in the corner of the room. A small table, a curtained-off single bed, a dresser, and a trunk complete the furnishings. Three calendars and several family portraits adorn the walls. The room is cramped but as neat and clean as is possible.

Nathaniel first came to Nairobi to visit his father's brother briefly in 1949; he had been to Kisumu once before that. He first obtained employment as a laborer in 1950 on a European farm near Nakuru (about 120 miles east of Kisa). In 1952 he came to Nairobi to look for work; the Emergency was declared at

this time; Kikuyu men were being detained or removed from Nairobi and thus increasing numbers of jobs became available to non-Kikuyu men.

Nathaniel's first job was as a gardener for a British civil servant; he obtained the job through a Kisa friend already working there as a cook. He kept this job for 5 years, eventually becoming a cook, and he learned to drive from friends employed nearby as drivers. He left in 1957 to take a job as an office messenger and a driver for a private firm: "I didn't like this housework too well after awhile. It was hard with long hours. The Europeans kept leaving and new ones were not as good to work for. A friend in this company told me they needed a messenger and I got the job." But he was laid off the following year, had difficulty finding a new job, and left Nairobi.

He was married to Grace not long before losing work. He met his wife while home on a visit, and she came to stay with him soon thereafter. She stayed at Nathaniel's father's homestead in the small house he had there, and they worked on the 4½ acres Nathaniel was given by his father. Their first son was born in 1953. "There wasn't any work in Kisa except farming, and when I heard of a job as a driver from a friend who was home on leave, I borrowed some bus fare and went back to town." However, he did not have immediate success. During his search Nathaniel stayed with a lineage-mate who worked as a carpenter and lived in one of the City Council rooms near city center. He searched for work for several months longer without success and then returned to Kisa for the next 2 years. Another child was born, and Nathaniel began work on a new house for his own family several hundred yards away from his father's house. His older brother working in Nakuru gave him some money for some of the lumber, nails, and other items he needed, as well as other occasional small amounts for health and personal emergencies.

In 1960 Nathaniel again heard of work, this time in Nakuru, and worked as a driver for an Asian merchant for several months. The wages were very low, however, and conditions poor, and so when in 1961 he again heard from clan-mates in Nairobi of work as a driver there, he left Nakuru. This time he found employment. "There are quite a few Luyia working in that company, and they helped me get a job there." At first Nathaniel stayed with a Kisa friend he had made on his earlier, unsuccessful trip to Nairobi. They shared the rent and cooked together. After 4 months Nathaniel returned home over a long end-of-the-month holiday weekend. He brought monies for his parents, for his wife and children, and for a mother's brother who was about his age and who wanted bus fare to go back to town in search of work. He also hired a workman to complete the roof of his new home and arranged for Grace and the youngest child to come and stay with him in Nairobi when he and she had made preparations.

She came a month later, after planting and early weeding was completed in July, bringing the younger child along; the older one stayed with Nathaniel's mother. Grace crowded into the one Nairobi room with its two curtained-off

beds for 5 weeks. Nathaniel's roommate fortunately took a 3-week leave during this time, which helped space problems and propriety. "I didn't do too much in town; it was my first visit, and Nathaniel showed me around the center of town once, and I passed through on the bus. But I mostly stayed inside, or visited some friends from my own home in Bunyore who lived nearby. My older brother works in Nairobi and lived not far, and he came two or three times a month to see me, and made sure things were all right. It is too costly to buy food and rooms in towns." Grace had some medical treatment done for her baby's cough, which involved long trips to the hospital. When August came and with it farm work, Grace returned to her husband's new rural house, on which a bit more work had been done. She still, of course, spent considerable time in Kisa at her parents-in-law's, and twice went for visits to her own natal home, some 8 miles distant.

Nathaniel held his new job until early in 1964. During this time he visited Kisa ten times; four of these were on vacation leaves of 3 weeks, three times he returned for long holiday weekends of 4 days or so, and on three occasions he went home on emergencies — once on the death of his fourth child and twice for funerals of close kinsmen. Grace visited Nairobi three more times, once staying 7 months, but usually 2 months or so between planting seasons in Kisa or when one of the children had health problems. She brought all three children for her longer stay, since Nathaniel had obtained a small room of his own in Eastleigh.

Nathaniel returned home after being laid off and unable to find work and remained in Kisa about 8 months. He completed his house, planted some sugarcane for some cash crop income, and managed to find a few jobs working on others' farms for two shillings (\$28) a day. His oldest child had been in nursery school while Nathaniel worked in Nairobi, and now was ready to begin school. The fees (ca. \$10) were hard to raise, and so Nathaniel took a chance, borrowed bus fare, and went back to town.

He moved in with two Kisa men in Eastleigh and started searching. The spouse of one of his roommates arrived, and he shifted to a clan-mate's room in an estate housing railway workers. His driving experience held him in good stead, and Nathaniel eventually found a job as a delivery driver with the firm he has worked with ever since. He shifted residences several times in town before finding his own room in Karibangi. His visits to Kisa continued at two or three a year; Grace came to Nairobi once or twice a year, for varying lengths of time, and with some or all of the children. Her visits gongrelly coincided with August school holidays, or with semiannual rural planting cycles. The three children are at present all in rural Kisa schools and only visit town on school holidays, if then. "It is much too costly for me to keep my wife and children here in Nairobi too often," says Nathaniel, "and the farm needs to be cared for. I hear from some Kisa men that schools in Karibangi are better, and I think they are right. But some children can become rogues staying in town all the time. My children

In school can help with chores at home on the farm and care for the younger ones. Grace doesn't like to stay in town all the time, either. If there is some money, I send it to her when I want her to come to town for awhile. Only a fool ignores his farm and his family at home."

Discussion

Nathaniel's is a typical history of urban and rural contact. The constant movement from room to room in Nairobi, the frequency of visiting of men, women, and children, the gradual shift to an independent rural homestead at around 30-35 years of age, the reliance of rural-resident men for economic and job assistance on urban-resident, employed kinsmen (to be possibly reciprocated later), the division of economic household responsibility for the spouse between city and country locations, the pressure of school and health fees on needs for income are the common themes. These are modal, not universal, patterns. A few men in town visit rural homes only rarely, and some have no producing farms or dwellings; some men's wives stay in town most of the time, and others may have never been in Nairobi. Most children who are in school are in rural schools. But median visits will often be two a year for men and between one and two for spouses. Many men will have changed jobs three or four times, and will hold them about 5 years. Nathaniel's case is quite typical.

Almost everyone with whom Nathaniel lives or has lived — his weekend drinking friends, men with whom he shares food or gossip or loans, people who travel from town to see him on Sundays or whom he travels to see — are kinsmen or friends from Kisa. He knows one of his neighbors in his plot, a Luo man, and knows some of his other neighbors by sight, but doesn't talk with them. At work he has as acquaintances a wide variety of men from different tribes, regions, and backgrounds. But outside of work settings, he tends to see friends from his rural home clan. There are several Muliya men in parts of town where he lived or worked before who do not come from Kisa but who are friends. But important exchanges involving trust — loans of money, food, information, housing — occur for Nathaniel almost exclusively among (nonelite) men from his rural home. The importance of cash remittances from city to country is also evident from the ethnographic data. Rural investment and economic aid by city network members in their own and other homesteads are critical factors in the maintenance of social ties (cf., Johnson and Whitelaw 1972, who estimate that some 20% of urban incomes are remitted).

At different points in his migrant career Nathaniel lived: (a) singly in his natal, extended homestead in Kisa; (b) married in both his natal and his uncompleted new homestead; (c) with his spouse and some or all of his children in town; (d) alone in town with clan-mates with his spouse absent; (e) alone in

town. Typically, his rural homestead will begin in the future to include some lineage-mates residing there temporarily, and finally his own grandchildren. His urban room will, if he retains his job, be the home at various times of some of his younger siblings and lineage relatives, and, off and on, his own nuclear family.

The Rural-Urban Network of Kin and its Effects on Sociability

The rural-urban network of kin, created and sustained by the migration processes outlined above, should produce an important and influential social group which spans city and country locations, and which depends on both rural and urban ties as men move within this network and through their life cycle. The more important this network, and migration process, the less important should geographical location in city or country be in determining social ties and roles. The more important this network, the more important should be factors in the rural-urban community which facilitate migration and influence one's migratory status. The two most important such facilitating factors in migration suggested above are support from kin upon arrival in the city (minimizing the risks and initial costs of rural-to-urban migration), and skill and experience levels which might increase the likelihood of obtaining employment (prior job experience, education, and language and literacy skills being most relevant).

Other approaches to the relationships between urban migration and sociability have quite different predictions. One alternative is the suggestion that urban residence has an effect on patterns of social ties *sui generis*. Reiss (1959) and Sorokin and Zimmerman (1929) have presented versions of this argument; Ferraro (1971, 1972) has also reviewed this model. The assumption here rests on the classic Weirichian notion that the city is an impersonal, heterogeneous setting, with a preponderance of secondary, impersonal relations which supersede rural, intimate ties. Southall (1959) proposed a typology of roles in city and country settings which makes this model explicit. Rural settings encourage "broad and manifest" social roles, while urban social roles are "narrow and latent." Narrow roles are limited to one functional domain (e.g., economic) to the exclusion of others (e.g., kin or political). Latent roles have a low frequency and duration of interaction, with little face-to-face contact. *This formulation predicts strong rural-urban differences in the quality and quantity of social attachment due to residence.*

If there is such a universal effect of urban residence on interaction patterns, the urban-rural network of kin should be influenced by it. Urban network men should have relatively little contact with each other outside of fairly narrow and latent interaction patterns. Contact with the countryside should be

quite low, and the kinds of ties in the two settlements should be quite different from each other. The network should be relatively unimportant as an interaction system, and there should be little integration within it.

Another approach starts with rural influences on urban sociability, but restricts those influences to urban-focused networks. The urban ethnic enclave, rather than a more balanced rural-urban network, provides the services (e.g., information, housing, food) and support (sociability and security) for migrant communities. Such ethnic and tribal enclaves have been extensively studied in Africa for many years (e.g., Epstein 1958; 1964; Mitchell 1966; Little 1965; Mayer 1971; Parkin 1969; Pons 1969; Chapters IV and V). Snyder (1971, 1973) also has reviewed the adaptive functions of enclaves for Navajo migrants to Denver, Colorado. The emphasis on the urban enclave is wholly consistent with the rural-urban network model; only the *relative* deemphasis of country ties is different. The urban enclave may encourage rural-urban ties, but it may weaken them as well. Mayer, for instance, points out that Red migrants in East London, South Africa, continually are in contact with and visit rural homes, but Schaefer, more educated, Christian migrants use their enclaves to isolate themselves from rural areas. The enclave in the city is characterized by close social ties within the group; this enclave may or may not be associated with strong rural, interactive ties as well. The rural-urban network emphasizes the influence of the national economy on the rural as well as urban setting, and the attachment of newcomers and returnees to both city and country economic and social resources.

Sampling the Urban-Rural Network of Kin

The Urban Enclave

Men and their families within a rural-urban network utilize the network for social support and economic assistance while in the city and country. Within housing estates or neighborhoods, the effect of participation in such networks will be the presence of enclaves, structured around rural kin, lineage, and clan affiliations. The enclave cannot be treated in isolation; it is only one end of a nonegeographically bounded social group extending to the rural clan locations and homesteads containing potential migrants and returnees to the country from the city. From the urban perspective, however, each housing estate contains many such enclaves of men and their families (if present in the city). One such enclave in one urban housing estate in Nairobi was selected for intensive study. It is from this initial urban enclave that the rural counterpart group of men and families was selected.

The housing estate where the urban enclave was chosen is called Kariobangi, and contains about 13,000 people; it is located some 7 miles from the

downtown center of Nairobi. The housing is privately owned by African investors; most of the owners do not live in the area, but rent out rooms. About 50% of the houses (all on 42-foot-square plots) are mud and wattle and 50% are cemented-over, mud and wattle or stone. Most men live in single rooms about 11 by 17 feet. Average room density is 4.2. Each plot contains four such rooms, and the occupants share a water tap, sink, and toilet. The median income for men is about \$45 to \$50 per month, which is approximately the median for Nairobi; men work at unskilled or semiskilled jobs — craftsmen, shopkeepers, clerks, laborers, drivers, watchmen. All the major ethnic groups in Kenya are well represented in the estate; the plurality are Kikuyu, with large groups of Abaluyia, Luo, Akamba, and others. Karlobangi, which means "place where there is marijuana," has an only partly deserved reputation as a somewhat scruffy and dangerous place where illegal brews and other relaxants are available.

Residential turnover is fairly high in Karlobangi; estimates from revisits to a randomly selected group of households indicates that about 30% of all rooms are vacated and reoccupied each year. Some of these households have relocated elsewhere in Karlobangi, while others will have moved back to the country, or to other estates in Nairobi. Turnover in personnel within households is also high; a 6-month revisit showed 51% of all households had changes in membership. This mobility is the result of rural-urban network ties, as well as housing and employment pressures on migrants.

On the basis on pretests and visits to many enclaves and rural home areas, one network was selected for intensive study. All the urban men in Karlobangi from one area in Buluya, Kakamega District, Kisa Location, were identified and interviewed, using network contacts and snowball sampling techniques; 24 men were selected in this way. All 24 men came from a common home area, bounded by three localized clans.

Sampling the Rural Home Community

Kisa is a densely settled location containing some 50,000 people, located about 230 miles west of Nairobi. Its residents are one of the subtribes of the Abaluyia of Western Kenya (Sungree 1960; Wagner 1949; Were 1967). The area is well watered and supports two crops a year. Staples are maize and millet; a variety of vegetables, potatoes, peanuts, and sugarcane (the latter two for cash) are also grown. Some cattle are kept in small numbers. Patrilineal, patrilocal homesteads are dispersed throughout the green gently rolling hills at an elevation of 4,000 feet. The central area is accessible by car, served daily by buses, and is in a surrounding region about 8 miles in circumference containing several markets and schools. It is typical of the region in its close contacts with urban places; about 55% of the eligible adult working-age men are away at any one

time, along with about one-third of the adult women. This figure is again typical of the densely settled agricultural areas of Kenya.

In order to find a comparable group of rural residents who were part of a network of newcomers and returnees, the rural group of men would have to be at similar stages in their migrant and familial life cycles, have roughly similar opportunities for urban employment, and have kin ties to the urban men. Weisner (1973a, 1973b) describes how this sample was chosen. Briefly, each urban enclave man was asked to choose his own rural counterpart. Each urban man named a rural kinsman of approximately the same age and educational level as his own. Genealogically close patrilineal kin from the same homestead or lineage were chosen; similar age was utilized to control for life cycle, and educational level for potential opportunities for urban employment. Each urban enclave man, then, matched himself with a rural counterpart who was a potential migrant and/or returnee, and who shared kin ties and essential characteristics related to urban or rural migratory status. This group of 24 matched pairs of men, and their families and homesteads, constitutes the rural-urban network sample.

Collection of Sociometric Data

Ethnographic research continued throughout the study period in both rural and urban locations, and involved the ethnographer in multiple city and country visits and research much as this rural-urban communication was a part of the network members' own lives. In addition, specific sociometric data were collected describing the relationships of all 48 network men to one another. Each man in the sample (and the spouses of all married men) were asked about (1) each member's knowledge of the other 47 men in the sample; and (2) whether the man or woman had visited with other network members in the previous 12 months. The names of each man in the network sample were first read off, and each man indicated whether he knew the man or not. Then, for those men known, participants indicated whether mutual visiting occurred in the past 12 months, and if so how often.² In order not to bias the network study generally, and the sociometric data in particular, these were the last data collected in the network study. The network sample of course was not bounded, named, and known in its totality by any one man; asking about all the men in the sample early might have produced an artificial awareness of the network as a whole. Each man was asked about other men, and each spouse was asked about other spouses. Etiquette did not permit questions concerning, for instance, how often men visit other men's spouses. Responses were checked against known visiting and mutual knowledge within the sample, based on ethnographic data. Variations in naming produced some inaccuracies which were rechecked and corrected.

Some men and women were unable to be completely interviewed or had missing data, and these cases were dropped in the analysis.

Analysis of Sociometric Data

Overall Network Integration

Adjacency matrices of scores for social ties between the men and the women in the final network sociometric samples were created. Figure 1 illustrates such a matrix for the data on knowledge of other men in the sample. Each row shows which individuals in the network were known for any particular individual. For example, individual 101 (the first row) reported that he knew individual 102 (who is the second column of the matrix) and so a "1" appears in that cell; 101 did not know individual 110 (who is in column 10, the first individual in clan B, Urban), and so a "0" is placed in that cell. The individuals are arranged by clan and residence in the matrix to assist in visual interpretation. Indeed, visual inspection already shows some interesting patterns in these data. Knowledge within clans is greater than between clans; certain individuals are outliers (are known by very few or very many individuals); and mutual knowledge by city men of country men, and country residents of city men, appears to be quite high. Similar matrices were made up for visiting ties within the sample.

Table 1 shows the data on the number of direct ties for the entire matrix for visiting and knowing, for both men and women. For men's knowledge of other men, there is a median number of others known of 25, with a very wide range (4-38). In addition, the women interviewed knew and visited fewer other women than did their husbands, and visiting between network members was less frequent than was knowing of other members. Obviously there is less visiting contact compared to knowing others. Women are less aware of other women in the network, and visit them less often; this lower contact is directly related to the ways the sample was obtained. Urban men were matched with rural men, not urban women with rural women directly. The clans are the clans of the men from Kisa, not the women's own clan affiliations from a variety of neighboring communities. Thus women are being asked about their husband's network's male friend's spouses. The likelihood of knowledge and visiting in such an indirect chain is thus considerably lower, as these data show.

Table 2 shows an intuitive estimate of relative strength of ties within the network by simply adding up the number of "1"s in each block of Figure 1 formed by the clan and residence groupings, and comparing these totals to the number of possible ones if everyone had known everyone. High percentages indicate higher direct knowledge by the row grouping of the column grouping. For

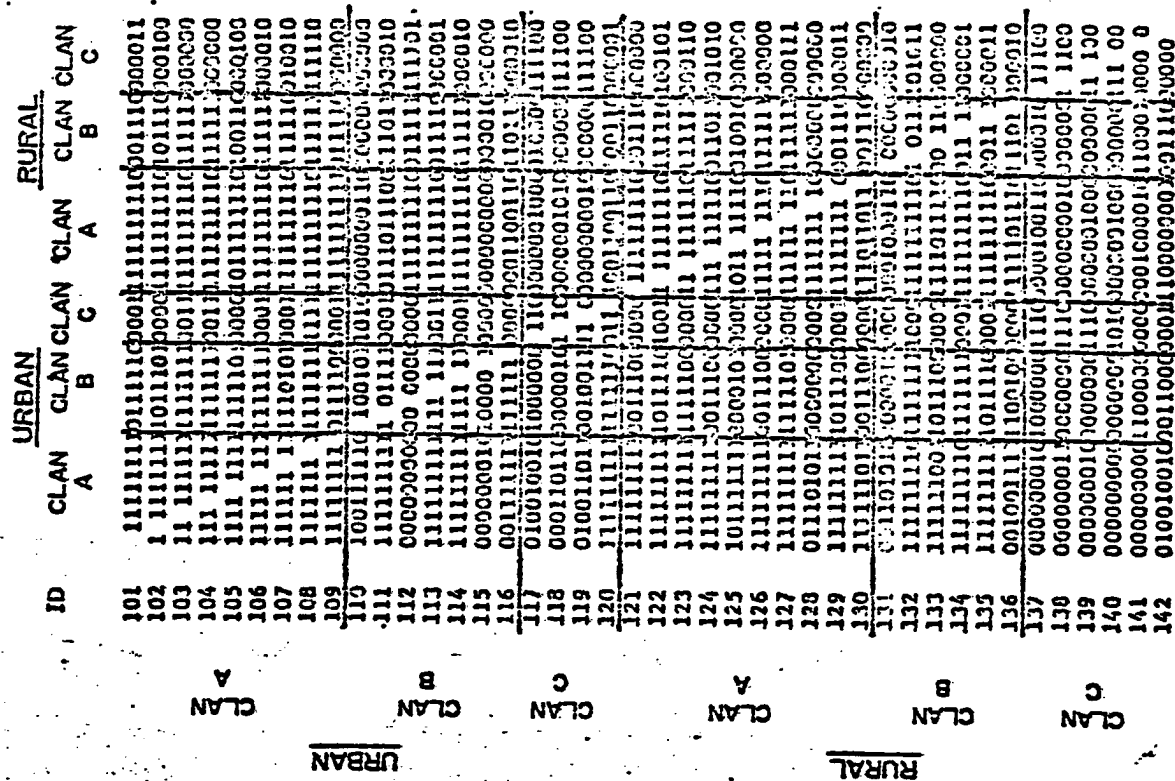


FIG. 1. Adjacency matrix for men knowing other network men (N=42).

TABLE 1. Summary Statistics for Sociometric Data, Knowing and Visiting Relations, Men and Women

Knowing others in network sample		Men	Women
Number known		889	466
Percent		54.2	28.4
Median		25	11
Mean		21.7	11.4
Range		4-38	1-24
Visiting others in network sample			
Number visited (in past 12 months)		571	228
Percent		34.8	13.7
Median		11	5
Mean		13.9	5.5
Range		2-30	0-19

example, urban men in clan A know 80% of the rural men in clan B, and the rural men in clan B know 76% of the urban men in clan A. These percentages confirm what visual inspection of the matrix also shows. Clan ties are strongest within clan A, and weaker for clans B and C. Ties between urban and rural residents are often very strong within and between clans, but appear weaker for some clans than for others.

These data provide an overview of direct ties — ties of any man to other man in the network. Indirect ties provide another useful way to look at the structure of social ties within the network. Indirect ties include intermediate steps in a chain of social relations; man *i* knows man *j*, but *j* does not know *k*; *i* does know *k*; hence *i* is indirectly tied to *k* through *j* in two steps, *i* to *j* to *k*. Such chains of ties can be calculated to estimate the overall connectedness of the entire network sample. Figure 2 shows the results of a series of matrix multiplications to determine the percentage of all individuals connected by *n* steps or fewer, for knowing and visiting among men and women. Within two steps (*i* to *j* to *k*) every man in the network is connected to every other man; 82% of all the women are connected within two steps. For visiting ties, 71% of the men and 43% of the women are connected at two steps. By three steps virtually every individual can be connected to every other, with the exception of one or two isolates who are never connected to a few individuals.

Connectivity is very high in the network samples. By design, each urban and rural man was known to and visited by the one matched counterpart selected initially by the urban enclave members. But it is clear that the overall network sample reflects a highly interrelated set of social ties. This network clearly spans city and country residential locations; if there were major disjunctions between the two places, the high connectivity within the network between clans and between locations could not have occurred.

TABLE 2. Percentage of Network Members Known By Men By Clan Affiliation and Urban or Rural Residence^a

	Urban						Rural					
	Clan A	Clan B	Clan C	Clan A	Clan B	Clan C	Clan A	Clan B	Clan A	Clan B	Clan C	Clan C
A	N	72	63	12	81	43	12	12				
	Total											
	Cells	72	63	36	90	54	54	54				
	%	100	84	33	90	80	80	22				
B	N	41	28	6	39	26	9	9				
	Total											
	Cells	63	42	20	70	42	42	42				
	%	65	67	21	56	62	21	21				
C	N	21	11	8	9	4	13	13				
	Total											
	Cells	36	28	12	40	24	24	24				
	%	58	39	67	23	17	54	54				
A	N	85	34	3	78	38	12	12				
	Total											
	Cells	90	70	40	90	60	60	60				
	%	94	49	60	87	63	20	20				
B	N	41	27	3	46	17	9	9				
	Total											
	Cells	51	42	24	60	30	36	36				
	%	76	64	13	77	67	25	25				
C	N	7	5	12	11	7	12	12				
	Total											
	Cells	54	42	24	60	36	36	36				
	%	13	12	50	18	19	40	40				

^a Tabulated from Figure 1. Reading across rows shows percent known to that row grouping; reading down columns shows percent of column grouping known by row groupings.

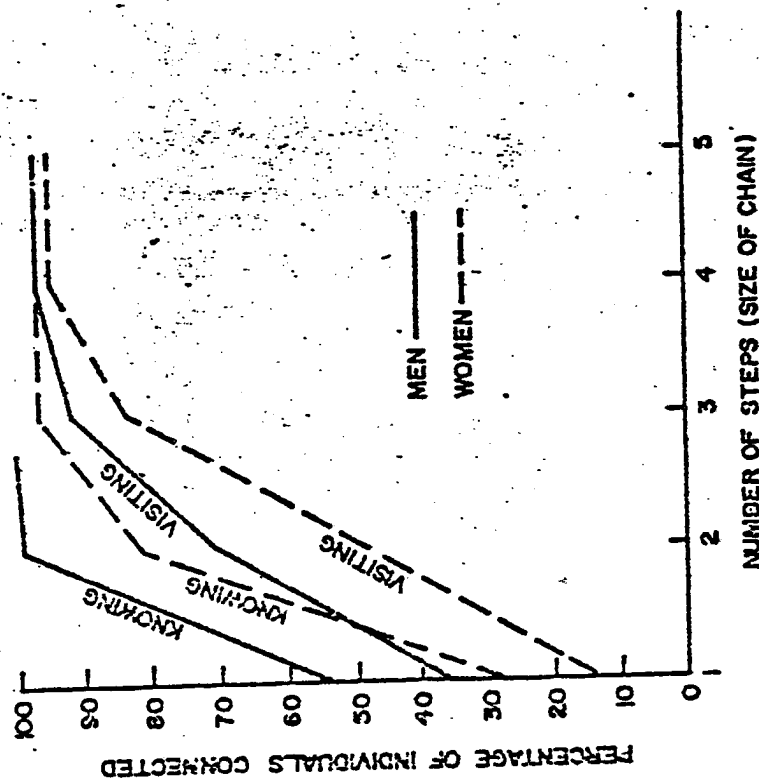


Fig. 2. Percentage of individuals connected for different numbers of steps, men and women, knowing and visiting relationships.

Individual Differences in Network Connectedness

Within this overall highly socially related network, there are wide individual differences in the amount and focus of social ties. In order to examine these differences more closely, an overall summary score was obtained for each man and woman giving the number of individuals known who also knew that man or woman. This is a way to estimate how many and what kinds of strong dyads (i.e., pairs who mutually knew one another) occurred for different men and groups of men in the network. The higher this connectedness score for a given individual, the stronger were the direct ties of that individual to others in the network. Four characteristics of the men were examined for relationships with network ties: urban or rural residence; clan affiliation; age; and years of formal education. Age and education were divided at the median for each sample, and urban or rural location and the three clans were treated as nominal

TABLE 3. Chi-Square Values and Significance Levels For Individuals' Connectedness Scores (Knowing and Visiting), By Residence, Clan, Age, and Education for Men and Women ($N = 41$)^a

Variable	Knowing		Visiting	
	Men	Women	Men	Women
Clan	20.22 $p < .001$	19.37 $p < .001$	16.69 $p < .001$	2.08 n.s.
Urban residence	.060 n.s.	2.10 n.s.	1.19 n.s.	15.25 $p < .001$
Age	1.19 n.s.	0.03 n.s.	1.19 n.s.	1.09 n.s.
Education	5.57 $.02 > p > .01$	0.62 n.s.	0.09 $.02 > p > .01$	0.03 n.s.

^a $df = 1$ except for clan affiliations, where $df = 2$; all tests 2-tailed.

categories. Powerful residential differences would indicate differential awareness among network members due to current urban migration; strong clan effects would indicate that kin ties regardless of location are influencing contacts; age differences could indicate that the length of exposure to others in the network was important, or that an age stratification effect in social ties was operating; educational effects could indicate that a factor relating to likelihood of gaining urban employment was dividing social ties within the network.

Table 3 shows the strong effect of clan affiliation on network integration. There were significantly more ties within each man's own clan than between clans. Clan C was proportionally much lower in cross-clan ties (and overall connectedness) compared to clan A or B. Members of clan A were higher than clan B, but the difference was not strong. Clan A is tightly knit in Kisa, is geographically localized there, and is smaller than either B or C. Clan A also has a strong role in rural Kisa politics, development projects, and religious groups of various kinds. This relatively greater clan unity is reflected in rural or urban members who know (and visit) one another more often, and are more involved in clan affairs. Clan C is slightly separated from the others geographically, is quite large, and internally somewhat fragmented.³ There are relatively fewer members of clan C resident in Kariobangi, and so fewer were included in the urban enclave sample. The rural organization of clan B is somewhere between these two descriptions, and is also reflected in the lower proportion of strong social ties of urban and rural clan B members.

Clan affiliation has an important effect, but residence does not: Urban network members are not becoming isolated or socially separated from Kisa residents. The exception to this finding is that urban women tend to visit other urban women more than rural women. This effect is again related to the nature

of the sample, and to the etiquette concerning visiting among the Abakuyila. For spouses of network men to know the other urban women in the sample, they must have visited the city themselves or know the spouses of urban men when the wives are living in Kisa. Some wives do not accompany their husbands to the city, and do not visit other homesteads on their own, without their husbands also having some ties with the men in that homestead. Thus women's visiting is restricted by migration circumstances, and by not knowing the spouses of other urban network men. This sample of women is not the same as a hypothetical sample of other women which might have been chosen independently of their husband's current residence and the circumstances of selecting the Karlobangi urban enclave of men.

Ago differences do not appear to have a strong effect on connectedness, but years of schooling do influence men's, but not women's, connectedness. Men with *more* years of formal education have stronger ties to more individuals in the network sample, and to other better educated men.

Structure of Sociability Within Total Network

Thus far the network has displayed considerable connectedness overall, and an analysis of the relative degree of connectedness across individuals has shown the influence of clanship and education, and the absence of a powerful urban-rural residence influence on social ties. All these analyses focus on individuals or on the total system, and not the interrelationships of social ties within the network sample, or the multivariate analysis of the factors (e.g., age, residence) which influence social ties. This type of analysis on nominal data such as adjacency matrices of social ties is appropriate for multidimensional scaling techniques (MDSAL) (Romney, Shepard, and Nerlove 1972). MDSAL is a powerful technique for analyzing the relative distances and overall structure of a system of social proximities such as the rural-urban network. Scaling provides quantitative and visual data on the overall patterning of relations as well as on individuals within the context of the overall structure. MDSAL is analogous to factor analysis in that it provides dimensions which describe covariation within a large and interrelated set of measures.

In order to utilize scaling techniques, the original adjacency matrices were transformed into a half-matrix of social proximity scores for each pair of men or women. A program was written to calculate the number of individuals each pair of individuals know in common, or both reported visiting (i.e., man / visits man *k*, and man / of pair (*i,j*) also visits man *k*), plus whether the pair know or visited one another (i.e., *i* and *j* visit one another). This proximity score was then adjusted for those individuals the pair disagreed on knowing or visiting (i.e., man / states that he visits man *k*, but man / reports that he does not visit *k*). Scaling analysis provides the best fitted set of clusters of all these scores along as many

dimensions as are specified; four, three, and two-dimensional solutions were compared for the network sample.

Three clear dimensions or factors were found which differentiated the array of social proximities across men. The first dimension was *clanship*; the second dimension was a composite measure of *social status*, including educational level, the number of years employed in town, wage income, and the age of the man; the third dimension was rural or urban residence. Table 4 shows the influence of clan affiliation and urban or rural residence on the relative position of each man in the network sample along the three MDSAL dimensions. These data are for visiting; the same relationships hold for knowing other men. Each man in the sample has a standardized scale score for each dimension, representing his social proximity relative to all the other men in the network. These scores were split at the zero point of each dimension and cross-tabulated with clan and residence. Clan C is clearly separated from clans A and B; clan B is somewhat intermediary between A and C. Clanship is unrelated to dimension two. Urban or rural residence for the network men is unrelated to dimension two, dimension one or two; residence does not influence men's visiting or knowing patterns within the rural-urban network, for the initial two dimensions extracted. Residence does significantly affect visiting (and knowing) ties when a third dimension is requested; clanship is unrelated to this third dimension. This residential difference is present in the clustering of social ties, but relatively weak compared to clanship and social status, since residence effects are lost when going from a three- to a two-dimensional solution.⁴

Table 5 shows a summary of a Chi-square analysis of each man's standardized scores for dimension one (Clanship) and dimension two (Social Status). Social status is estimated by years of education, number of years employed, wage income, and age. Dimension two is related to all but age. Men who have more years of formal schooling, have been employed longer, and have higher wage incomes tend to cluster at one pole of dimension two, and men with fewer

TABLE 4. Chi-Square Values For Three-Dimensional Scaling of Social Proximity Scores for Men's Visiting Patterns, By Clan Affiliation and Residence^a

Variable	Dimensions		
	One	Two	Three
Clan affiliation	20.00 $p < .001$	.68 n.s.	1.71 n.s.
Urban or rural residence	.51 n.s.	.88 n.s.	7.68 $p < .01$

^aClan $df = 2$; residence $df = 1$; all tests 2-tailed.

rectly chosen by women themselves, would provide a far better group for comparison with the men's sociability data.

Conclusion

Sociability within this matched rural-urban network sample is structured by clanship and by social status (measured by formal education, income, and urban work experience). Current urban or rural residence is of minor importance relative to these two powerful factors. Data ranging from ethnographic case studies, to analysis of the social ties of individuals, to an MDSCAL analysis of interdependence and overall social proximity point to the powerful influences of network ties themselves and the interactions of (rural) clanship and (western-urban) social status in structuring the social ties of actual and potential migrants, perpetual newcomers, and peasant returnees within the network.

The cyclical migration process and existence of city and country resource bases discourage distinctive patterns of purely urban association, as well as discouraging urban enclaves which are isolated from their rural home sources. The structure of sociability identified in this network sample makes more plausible the general model of rural-urban migration suggested in this paper. Far more work needs to be done in exploring these connections between migration, sociability, and economic ties. Jacobson (1973), for example, contrasts elite and non-elite migrants in Uganda, and finds elite with far more urban-centered and inter-tribal relations, compared to nonelite, like the men in Kariobangi, who have more kin- and rural-focused ties. Work outside Africa is also needed to define other antecedents and types of kin ties, such as Hammel's important work in Serbia (1969, 1973) which traced family histories and kin ties between city and country patrilineal kin, and found processes analogous to those in Kenya.

Clearly, the matched network sample design was intended to represent both urban and rural influences. Thus this sample is not appropriate to disprove other clearly independent and important influences of urban residence and settings, nor does it disprove the hypothesis that isolated urban enclaves might be formed, given other antecedent factors. Findings relevant to specific kinds of migration processes or urban and rural conditions have too often been overgeneralized. This study specifies certain kinds of rural-urban social ties, as well as some particular urban and rural settings likely to produce them. Finding isolated urban enclaves in Nairobi or differential social ties between city and country settings in Kenya would not falsify the network model outlined here, nor does the network model preclude the very likely co-occurrence of other patterns of sociability. Further research is needed on the specific social, cultural, and sociometric correlates of each alternative type of sociability.

TABLE 5. Chi-Square Values for Two-Dimensional Scaling of Social Proximity Scores for Men's Visiting Patterns, By Four Measures of Social Status^a

Social status variables	Dimension	
	One	Two
Years of formal education	3.11 .10 > $p > .05$	7.16 $p < .01$
Number of years employed in cities	.64 n.s.	8.00 $p < .01$
Current wage income	1.92 n.s.	4.11 $p < .05$
Age	7.53 $p < .01$	1.64 n.s.

^a $df = 1$; all tests 2-tailed.

years of formal schooling, fewer years employed, and lower wage incomes at the other pole. Age does not appear to be influential as a social status indicator. Since neither clanship nor urban-rural residence were associated with dimension two, this dimension appears to be a clear indicator of a network tendency for men to know and visit with those in similar educational, employment, and income status.

Unfortunately for a clear interpretation of dimension one, formal education and age are also related to this factor, along with clan affiliation. It appears that older men were somewhat more likely to be members of clan C (but not clan B), and several men with some secondary education were in clan A. There is some confounding of these influences, therefore. However, the overall pattern of the sociometric and ethnographic data on clan visiting supports the interpretation that clan ties for dimension one are the primary social tie structuring sociability within the network, and age and educational influences are of minor importance compared to clan influences.

For the spouses of the network men, the findings are quite different, and are only summarized here, due to the unusual aspects of the sample of women already mentioned. The husband's clan affiliation was associated with both dimensions one and two for visiting and knowing, and residence of the husband in city or country was associated with dimension two, but not dimension one. Interestingly, social status of the husband was not associated with any MDSCAL dimensions. Once again, since spouses of network men marry into their husband's clans, and are limited to some degree in their mobility and social ties by the diversity of their own natal lineage ties in a patrilineal, patrilineal society, women's ties are indirect. Clearly, a sample of women in city and country, di-

NOTES

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² Men and women were also asked about their friends within and outside of the network, but those data are not considered here.

³ Indeed there is some pressure toward fission of this clan into two separate units, and genealogical debates were active during the research.

⁴ Stress scores provide an estimate in MDSCAL analysis of the unity of the dimensions extracted and their goodness of fit; the lower the dimensions requested, the higher the stress scores usually become. For men's visiting data stress scores are .07, .085, and .125 for four, three, and two-dimensional solutions, respectively. Stress scores for knowing are similar; women's scores range slightly higher (.09 to .175). These stress scores are well within acceptable ranges, and indicate that both three- and two-dimensional solutions are appropriate. A fourth dimension might also have been appropriate, but the clusters and proximity scores for the men were not interpretable, and so this dimension was dropped.

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