

# Normative Versus Instrumental Functions: Evidence of Social Network Differentiation Among Rural Kenyan Men <sup>1</sup>

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## INTRODUCTION

The study of communications networks is marked by a relative paucity of descriptions of network characteristics of rural African men. It might also be observed that the significance of these network attributes for interpreting processes of social change is also understudied in the developing countries. This paper seeks to address both of these shortcomings in the literature by providing a detailed description of the communication networks of one group of rural African men, members of the Luo ethnic group of Kenya's Nyanza Province, and by analyzing the possible implications of these network attributes for social change.

Specifically, the network attributes of individual Luo men will be compared for two topics related to fertility change, the process by which a society moves from a relatively high average number of births per woman to a substantially lower average number of births per woman. The first network centers on the people with whom the respondent discusses the issue of children supporting their parents in old age. The second network focuses on family planning and the people with whom the respondent discusses the desire for fewer children, the use of contraceptive methods, the side effects of these methods, and so forth. This paper seeks to answer two questions: 1) Can the two networks be differentiated on the basis of their normative and instrumental functions?; and 2) What does this distinction in network characteristics suggest about the future of fertility change among the Luo?

Both semi-structured interview data and survey data confirm that there is considerable differentiation in the composition of the two networks for individual Luo men, and many of these discernible differences suggest that Luo men discuss these two issues with somewhat different types of partners. The evidence indicates that the parental support network serves more of a normative function, while the family planning network plays more of an instrumental role. Both normative and instrumental changes are integral components of any process of social change; each of these elements is, therefore, essential for fertility decline. The fact that Luo men are discussing both the normative context and the instrumental factors associated with the decision to have fewer children augers well for the pace of future contraceptive adoption and fertility decline among the Luo.

## **THE LUO OF KENYA**

The Luo migrated from the Sudan and settled near the eastern shore of Lake Victoria during the last 500 years (Shipton, 1989, p.16). They now live primarily in three districts of Kenya's Nyanza Province, and number over 2.5 million (Shipton, 1992, p.357). The Kenyan census of 1979 measured Luo population growth at approximately 4 per cent per year (Shipton, 1992, p.361), and Shipton (1995) describes the Luo as having "one of Africa's denser rural populations (now averaging over 200 per sq. km.)" (p.166). Rapid population growth among the Luo has resulted in high population densities and a strong contraction in the size of individual landholdings (Hoddinott, 1992, p.562). In addition, the Luo have stood in opposition to Kenya's national government since independence in 1963 and have suffered relative neglect in terms of development and governmental allocation of resources (Shipton, 1995, p.166; Francis and Hoddinott, 1993, p.116). This excerpt, from a 47 year old stonecutter and cotton farmer with 4 years of primary education, demonstrates what many Luo men perceive as the economic difficulties they face:

"The goodness of having many children? Yes, we have talked about it. If you have 4 or 5 children, not all of them will go astray, you might find one who is willing to support you, if you educate all of them. Even if you don't educate them, you will find at least one who can really do the farm work. You can find people saying that the son of so-and-so is really a hard worker. They all want to be lazy. The badness is that you might have only a few acres of land, and each son will claim land. You might not have wealth and as such will leave your children in poverty. All your sons want to get married, and you have to give each one of them a cow [for their brideprice]. All of them want to go to school, and yet you can't afford to pay fees." [Kawadhgone 5]

The Luo are characterized by patrilineal descent (Shipton, 1992, p.362), virilocal residence (Shipton, 1992, p.362; Hoddinott, 1992, p.548), and a relatively high level of polygyny. They combine the growing of staple crops, primarily maize, millet, sorghum, pulses, cassava, green vegetables, sweet potatoes, and bananas, and the production of cashcrops, such as groundnuts, sugarcane, tobacco, and cotton, with the herding of cattle, sheep, and goats (Francis and Hoddinott, 1993, p.120). The main sources of income in the four research locations, aside from selling agricultural products, include fishing, stone cutting, and skilled and unskilled labor (e.g., as carpenters, masons, thatchers, agricultural workers, etc.).

## **NORMATIVE VERSUS INSTRUMENTAL FUNCTIONS OF COMMUNICATIONS NETWORKS**

Mitchell (1969) distinguishes between two functions of an individual's communication networks. The first of these functions is to help the individual define norms and maintain a set of attitudes consistent with other network members (Mitchell, 1969, pp.36-37). These normative networks tend to contain more kin members and intimate friends. A communication network may also serve a second function as an instrumental means for achieving desired ends (Ibid., p.38). Mitchell asserts that normative communication networks tend to be more stable, while instrumental communication networks tend to be mobilized specifically to address a particular need or objective. He posits that instrumental networks "may be looked upon as an aspect of a personal network isolated in terms of a specific short-term instrumentally-defined interactional content: the personal network itself is more extensive and more durable" (Ibid., pp.39-40).

Moore (1990) asserts that, "A broad range of ties, with many strong or weak connections to diverse others, is often seen as a valuable instrumental resource, while network density is more closely associated with social support" (Moore, 1990, p.728). Marsden (1987) also reports that, "[I]nfluence processes and normative pressures operate through intimate, comparatively strong ties" (p.123).

The hypothesis guiding this analysis was that the attributes of parental support network partners, taken in the aggregate, would provide evidence that these conversations serve more of a normative function, while the characteristics of the family planning network partners, taken in the aggregate, would suggest that family planning discussions play more of an instrumental role. It is important to recognize, however, that the parental support network is likely to contain a considerable instrumental component, while the family planning network is sure to feature a strong normative content. The question, therefore, is not whether or not these two networks are examples of "pure" normative and instrumental networks; rather, the question is whether or not significant differences along these lines can be discerned between them.

## **EXPECTATIONS OF LUO NETWORK CHARACTERISTICS**

As little literature exists describing network attributes of rural, sub-Saharan African men, we can speculate about what they might be, based on studies conducted in developed countries. Marsden (1987) finds that network range (i.e., diversity and heterogeneity) is greater in urban, as opposed to rural, settings (p.129), so we might expect rural, Luo men to have fairly homogeneous network partners. Fischer (1982) also reports differences in kin ties between rural and urban Americans (p.83), as well as significant differences in network densities, with rural respondents reporting more kin ties and much denser networks than urban respondents (p.156).

Network density, which ranges from 0.0 to 1.0, is a measure of the degree to which the network partners named by a respondent know one another. The degree of density is important, because it indicates the likelihood that new information and influences will, or will not, permeate a network. In a highly dense network, all or most of the people named by an individual know one another, while in a less dense network the network partners are less likely to know one another.<sup>2</sup>

Network partners in dense networks tend to share background characteristics (e.g., age, education, socioeconomic status), spend more time with one another, talk to the same people, read the same newspapers, listen to the same radio programs, etc. Network partners in less dense networks, conversely, tend to have more diverse background characteristics. This means that a respondent who is at the center of a less dense network is more likely to be exposed to a greater variety of information than a respondent at the center of a highly dense network.

It might be taken for granted, based on research findings from developed countries, that the characteristics of the communication networks of rural, Kenyan men would tend to be fairly predictable and homogeneous, with high numbers of kin ties and high densities. As the Luo live in villages that are composed largely of clan members (i.e., relatives or kin), one might expect the communications networks of these men to be composed almost exclusively of kin members who know one another well (i.e., high density). Furthermore, two of the four field sites included in this research are in remote areas of Nyanza Province, accessible only by poor roads and footpaths or boat; a third field site is accessible by better roads, but travel within the area is generally restricted to poorly maintained trails. For the residents of these three sites, opportunities to develop extensive networks outside their vicinities appear to be limited. We might expect that the characteristics of the two networks for individuals would be nearly identical irrespective of the

subject matter, as we could anticipate a great deal of overlap in the network partners who comprise the two networks.

On the other hand, we might expect that differences in the subject matter of the two networks would result in discernible differences in the characteristics of the two networks, despite the impediments to travel to and within these areas. It is plausible that discussions of parental support would necessarily involve network partners with age and sex characteristics significantly different from the family planning network partners. If this is the case, there should be less overlap in the conversational partners of the two networks, and there should be discernible differences in their network attributes. If so, one must assume that the two topics of discussion are viewed as somewhat distinct by the respondents; to some extent the respondents are engaging different types of conversational partners on the two issues. If so, this could have important implications for predicting the pace of fertility decline among the Luo.

The Luo are characterized by a traditional, patriarchal social system, in which older men hold a disproportionate share of control over the distribution of resources. Shipton (1989) calls Luo society a gerontocracy, in which elder males control bridewealth, land, and, to a lesser degree, labor, and he asserts that in Luo ideology, age, wealth, and respect are intertwined (p.20). Parkin (1978) describes the normative control of older men in this passage, "When young Luo monogamists equivocate about the advantages of taking a second wife, elders place repeated stresses on the word for polygynist, which has the additional connotation of arbiter and man of eminence and authority" (p.25).

Parkin asserts that, "This opposition between, from a male viewpoint, threats of disorder and reassertions of order is most vividly expressed in Luo public life and speeches, which are almost exclusively the domain of men" (Ibid., p.29). Elsewhere, Parkin argues that older Luo men act forcefully to oppose practices they see as violating 'proper' Luo conduct (Ibid., pp.215-216; p.287). Arguing about the foreign notion of private landholdings, Shipton (1992) asserts that the British found that implementing a plan to register and title landholdings among the Luo in the 1930s was met by opposition from "*ad hoc* assemblies of Luo spokespeople (nearly all men...)" and that even today, "Elders insist that lending at interest...is a foreign idea that came only during the colonial period" (pp.363-364).

#### **NORMATIVE DISCUSSIONS AND FERTILITY BEHAVIOR: THEORETICAL CONSIDERATIONS**

Parkin and Shipton agree that in Luo culture older men are considered the proper individuals to evaluate and pass judgment on normative matters. Thus, the normative issue of parental support should fall within their purview. There is a strong theoretical argument in the demographic literature that men's expectation of old age support is one of the cornerstones of high fertility in traditional, patriarchal societies (see, for example, Caldwell, 1976, pp.343-345; Mason and Taj, 1987, pp.614-615). Caldwell and Caldwell (1987) contend that the expectation of future support from children "is emerging as the strongest support of all for undiminished fertility" (p.421). Throughout Luoland, however, the socially-sanctioned practice of children supporting their parents in old age is weakening, reshaping the normative landscape.

If the parental support network more closely resembles a communication network with a normative function, it should be composed of more older and male network partners who know one another well (i.e., higher density) and more kin members. As the issue of parental support is inextricably tied to the issue of the value of children and, therefore, the normatively correct

number of children one should have, the parental support discussions between older and younger men have implications for desired family sizes, contraceptive use, and fertility decline among the Luo. If, on the other hand, the family planning network is correctly conceived of as having an instrumental function, it should contain more heterogeneous network partners, including more women, more network partners who are a generation or younger than the respondent, more nonkin, and fewer network partners who know one another well (i.e., lower density).

This analysis uses data from both a survey and semi-structured interviews. The survey data are communication network data collected among Luo men of Kenya's Nyanza Province from December 1994 through January 1995. The survey data represent two separate, but related, communication networks (i.e., parental support and family planning). These Luo network data are ego-centered, meaning that the information about conversational partners is collected for each respondent; there was a total of 709 respondents. These survey data provide a snapshot of individuals' conversational partners, rather than a more detailed, but limited, view of the network partners of all members of a bounded geographical area.

Such whole-network data provide extensive insight into the way that all individuals interact within a bounded setting (see Montgomery and Casterline, 1993, for instance), but must be artificially truncated at some geographical marker, such as the village limits. The ego-centered approach adopted here, in contrast, asks about all conversational partners with whom the respondent has discussed the relevant issue. As a result, conversational partners can include people who live great distances from the respondent, those who are seen infrequently, and others who would be less likely to be captured if data collection were limited to a geographic setting that utilized saturation sampling (i.e., asking about all of the potential discussion partners in the bounded area).

The network data are supplemented by qualitative data collected in Nyanza Province, Kenya in June and July, 1994. A total of forty semi-structured interviews were conducted, ten in each of four locations. While the data were collected using a sampling strategy that attempted to gather the data from a representative sample, the realities of conducting research in the field necessitated that the data be collected from respondents who could be located in a short time frame. The sample of men selected for qualitative interviews is biased, therefore, against men who were more likely to be away from their homes for extended periods of time. As a result, the qualitative data do not come from a representative sample of Luo men, and are presented for illustrative purposes only.

The inclusion of qualitative data addresses one of the limitations of network analysis, as elaborated by Barnett, Danowski, and Richards (1993). These authors lament that traditional communication network research has treated "message content as transparent or unimportant" (p.10). They assert that the majority of network researchers are not trained in communication science, so they are likely to ignore "the concept of message transmission or information exchange [that] is perhaps the defining concept of the discipline" (Ibid.). Network research has generally concentrated on the characteristics of network partners and the overall frequency of communication, at the expense of its content. The addition of qualitative data, although utilizing small samples that are not generalizable to a larger population, permits us some insight into what information is exchanged with whom, and the influence of these conversations on attitudes and behavior concerning parental support and family planning.

**EVIDENCE OF DIFFERENCES IN NETWORK CHARACTERISTICS IN THE QUALITATIVE DATA**

All of the parental support and family planning discussions described by the semi-structured interview respondents were tallied, in order to get a quantitative sense of the content of the discussions and the attributes of the respondents' discussion partners. Respondents were asked to elaborate upon the specific content of the conversation and to describe the characteristics of the discussion partner(s). The qualitative data are particularly helpful in exploring the content of discussions that are glimpsed only indirectly through the survey data.

**Table 1.**  
**Comparison of Selected Measures of Parental Support and Family Planning Networks of Luo Men, from Semi-structured Interviews, Nyanza Province, Kenya, 1994**

Measure	Categories	Parental Support Network (%)	Family Planning Network (%)
Discussion Type	Normative	59.6	24.9
	Instrumental	22.9	44.4
	Normative-Instrumental	17.4	30.7
Sex of Discussion Partner	Male	90.3	65.1
	Female	9.7	34.9
Age of Discussion Partner	Older than respondent	43.3	27.5
	Agemate of respondent	42.3	45
	Younger than respondent	14.4	27.5
Relationship with Discussion Partner	Relative	46.5	43.5
	Friend	44.7	46.3
	Acquaintance	8.8	10.2

Comparisons of the measures for the two networks from the qualitative data are presented in Table 1. Beginning with the measure of discussion type, the two networks can be distinguished from one another by the content of their discussions. The parental support discussions are more than twice as likely as the family planning discussions to have a normative content, while the family planning conversations are nearly twice as likely to have an instrumental content. This result is consistent with the expectation that parental support discussions would be more likely to focus on normative issues, while the family planning discussions were expected to focus on instrumental matters.

An even more telling difference between the two networks involves their sex compositions. According to the qualitative data, women constitute more than one-third of the family planning discussion partners, while comprising less than one-tenth of the parental support discussion partners. Women are more than three times as likely to be named as family planning network partners than as parental support network partners. For Luo men, the two subject matters are clearly distinct in terms of the appropriateness of discussing them with women.

There is a similar distinction between the two networks regarding the ages of discussion partners. For the parental support network, only a small minority of the discussion partners are younger than the respondents, and the largest proportion of conversational partners is older than the respondent. For the family planning network, conversely, the greatest proportion of discussion partners are among the respondents' age mates, while the remainder of the family planning conversational partners are equally divided among those older and those younger than the respondent. The qualitative evidence suggests that the topic of parental support is viewed by Luo men as more of a normative issue, more appropriately discussed with older men; family planning, on the other hand, is seen as a more instrumental matter, about which discussions with women and men of various ages is acceptable. For the other network attributes, the two networks are virtually indistinguishable.

### **EVIDENCE OF DIFFERENCES IN NETWORK CHARACTERISTICS IN THE SURVEY DATA**

How do the parental support and family planning networks compare in the survey data? Perhaps the most surprising finding is the limited extent to which the conversational partners for the two networks named by individual respondents overlap. Only 418 of 1555 (26.9%) conversational partners named in the family planning network were also named in the parental support network. The two sets of network partners tend to be distinct, despite the limited opportunities for travel to and within the research sites and the clan-based organization of the villages.

Comparisons of specific measures for the two networks are presented in Table 2. The respondents, on average, named more than one additional network partner for the parental support network than for the family planning network. The difference between the two networks is highly statistically discernible. The survey respondents were nearly twice as likely to report having discussed family planning with no one as they were to respond that they discussed parental support with no one (29.8% vs. 15.4%), and they were somewhat more likely to report discussing parental support with six or more network partners than talking about family planning with that number of network partners (29.9% vs. 22.4%). By all measures, parental support is discussed with more partners than is family planning.

Another network variable was created to measure the respondent's assessment of his emotional closeness to the network partners he named. The "closeness" measure used here is constructed from the responses to the question of how the respondent categorizes his relationship with the network partners he names: Are they "confidants", "just friends", or "acquaintances". The closeness variable was created for each respondent for each of the two networks, by giving a value of 1.0 for each network partner named as a confidant, a value of 0.5 for each partner named as just a friend, and a value of 0.0 for each network partner named as an acquaintance. The scores for all of a respondent's parental support or family planning network partners were summed and then divided by the number of network partners named. The result is a measure of closeness between the respondent and all of his network partners named, given in a single variable with a value between 0.0 and 1.0.

**Table 2**  
**Univariate Distributions of Network Attributes of**  
**All Luo Men, from Survey Data, Nyanza Province, Kenya, 1994-95**

	Rural Luo Men Parental Support Network	Rural Luo Men Family Planning Network
Overall network size mean / sd (N)	5.10 / 5.02 (709)	3.83** / 4.81 (709)
0	15.4	29.8
1	2.5	7.2
2	9.3	11.4
3	14	11.3
4	19.2	12.8
5	9.7	5.1
6+	29.9	22.4
Kin network size	2.01 / 1.40 (600)	1.86 / 1.42 (488)
0	19	23.4
1	19.7	20.5
2	22.8	19.9
3	18.3	18.9
4	20.2	17.4
5	n.a.	n.a.
Nonkin network size	1.47 / 1.32 (600)	1.28* / 1.21 (488)
0	32.2	32.8
1	22	30.1
2	21.7	19.3
3	15.2	11.5
4	9	6.4
5	n.a.	n.a.
Proportion kin	0.57 / 0.37 (600)	0.57 / 0.39 (488)
0	19	23.2
0.01-0.33	13.8	10.2

0.34-0.66	17.8	16.2
0.67-0.99	17.2	17.6
1	32.2	32.8
Closeness to partners	0.77 / 0.22(600)	0.73* / 0.27 (488)
0.00-0.34	4.2	9.6
0.35-0.67	32.2	32.4
0.68-1.00	63.7	58
Density	0.62 / 0.36(576)	0.53** / 0.41 (346)
<0.25	19.8	31.8
0.25-0.49	12.9	11.3
0.50-0.74	22.1	18.8
>0.74	45.3	38.2
Sex heterogeneity (IQV)	0.11 / 0.29 (600)	0.24** / 0.39 (488)
0	86.7	72.1
0.01-0.90	8.8	17.2
>0.90	4.5	10.7
Proportion male	0.92 / 0.21 (600)	0.81** / 0.31 (488)
(avg. prop. female)	7.9	19.0
Age	1.28 / 0.59 (600)	1.12** / 0.60 (488)
Avg. Proportion Older (1)	54	43.5
Avg. Proportion Same (2)	21.1	24.8
Avg. Proportion Younger (3)	24.9	31.7

\*p<0.02, \*\*p<0.001

There is a modest, yet statistically discernible, difference in the closeness measures for the two networks, with respondents reporting that they feel somewhat closer to their parental support network partners than to their family planning network partners. While the difference is slight, it is statistically significant and in the predicted direction. The respondents are naming parental support network partners to whom they feel somewhat closer than their family planning network partners. This is what we would expect if the parental support network is playing more of a normative function, while the family planning network more of an instrumental role.

**Table 3**  
**Univariate Distributions of Network Attributes of**  
**Luo Men Naming 3 or More Contacts, from Survey Data, Nyanza Province, Kenya, 1994-95**

	Rural Luo Men Parental Support Network	Rural Luo Men Family Planning Network
Overall network size mean / sd (N)	6.72 / 4.97 (516)	6.83 / 5.05 (366)
3	19.2	21.9
4	26.4	24.9
5	13.4	9.8
6+	41.1	43.4
Kin network size	3.76 / 0.49 (516)	3.67* / 0.59 (366)
0	0.0	0.0
1	0.2	1.4
2	2.1	2.2
3	19.6	24.6
4	78.1	71.9
5	n.a.	n.a.
Nonkin network size	1.56 / 1.36 (516)	1.44 / 1.30 (366)
0	31.0	31.4
1	20.5	25.7
2	20.4	19.1
3	17.6	15.3
4	10.5	8.5
5	n.a.	n.a.
Proportion kin	0.58 / 0.36 (516)	0.60 / 0.36 (366)
0	15.9	16.7
0.01-0.33	16.1	13.6
0.34-0.66	17.1	14.8
0.67-0.99	20.0	23.5
1	31.0	31.4
Closeness to partners	0.76 / 0.21(516)	0.73* / 0.25 (366)
0.00-0.34	3.7	7.7
0.35-0.67	34.3	37.2

0.68-1.00	62.0	55.2
Density	0.62 / 0.34 (514)	0.52** / 0.39 (298)
<0.25	17.9	30.9
0.25-0.49	14.4	13.1
0.50-0.74	24.7	21.8
>0.74	43.0	34.2
Proportion male	0.93 / 0.20 (516)	0.82** / 0.28 (366)
(Avg. Proportion female)	7.4	18.0
Age	1.29 / 0.57 (516)	1.12** / 0.60 (488)
Avg. proportion Older (1)	54.7	43.5
Avg. proportion Agemate (2)	20.5	24.5
Avg. proportion Younger (3)	24.7	32.1

\*p<0.02, \*\*p<0.001

The mean density for the parental support network, similarly, is greater than and statistically discernible from the mean density for the family planning network (i.e., 0.62 vs. 0.53). This is additional evidence that the family planning network serves more of an instrumental function than the parental support network. As Mitchell argued, the normative network acts to define and maintain attitudes and norms among network members. This is more easily achieved if network members know one another well (i.e., if network density is higher). The instrumental network, on the other hand, is mobilized in order to achieve an end. In this instance, the family planning network is used by respondents to garner information about the advantages and disadvantages of particular contraceptive methods, their side effects, and where they can be obtained. For the Luo respondents, discussions with people beyond an immediate circle of intimates who all know one another well will be more effective for acquiring new family planning information (Granovetter, 1973, pp.1370-1371). This is reflected, to some degree, in the lower mean density for the family planning network.

Speaking broadly, Luo men are engaging in conversations about changes in the normative system of parental support and their influence on the demand for children with one group of network partners – to some extent, older men – while participating in instrumental discussions about family planning with a somewhat different and more heterogeneous set of network partners. This statistically discernible difference in network densities constitutes modest evidence that the processes of ideational and behavioral change in fertility are occurring among the Luo. This is of particular importance given that there are serious limitations to the number and heterogeneity of potential conversational partners in a partially kin-based village setting with poor transportation.

The statistically discernible differences in the two networks extend to the sex and age characteristics of the network partners. As predicted, the parental support network partners are more likely to be male and older than the family planning network partners. Both differences in the means for these variables are statistically significant. This confirms, indirectly, that rural Luo respondents tend to seek older men -- those who speak with authority on normative matters -- as

discussion partners about the erosion of the traditional practice of children supporting their parents in old age. It might also be argued that older men are seeking the younger male respondents as discussion partners on the issue of parental support, in order to remind them of their normative responsibilities. Whatever the case, the family planning network shows much greater heterogeneity in the age and sex compositions of the discussion partners.

The findings reported in Table 2 are for all network partners (up to four) named by respondents. There might be reason to think, however, that there are differences in the network attributes of all respondents and respondents who name three or more partners. Perhaps a more reticent Luo would be more likely to speak only to one older man about parental support or family planning, while a more garrulous Luo might speak to a more heterogeneous set of network partners. Table 3 presents network attributes for respondents naming three or more discussion partners. The findings for these respondents closely parallel those for all respondents, with the two networks having statistically discernible differences in closeness between respondents and their network partners, network densities, and age and sex compositions. Evidence that the two networks can be distinguished along normative and instrumental lines, therefore, is also found in the sample of respondents with greater numbers of network partners.

## **IMPLICATIONS FOR THE PACE OF FERTILITY DECLINE**

Caldwell and Caldwell (1987) assert that the expectation of future support from children is one of the main incentives for sustained high fertility in sub-Saharan Africa (p.422). They argue that if parents are secure in the belief that their children will support them in old age, then having many children is an economically rational strategy for parents to follow. If, however, parents' certainty of future support from their children deteriorates, then the economic rationality of continued high fertility is less clear. The norm of children supporting their parents in old age is beginning to erode among the Luo. Some Luo respondents described how modern economic realities clash with normative responsibilities, preventing them from fulfilling their obligations to their parents. An excerpt from an interview with a 38 year old farmer with seven years of primary education demonstrates this point:

Interviewer: Do you expect your children to support you in old age?

Respondent: I think they will help me, but again it is difficult with the way the world is today. If I am the one finding it difficult to support my parents, how can I expect help? The prices of things are increasing steadily. [Oyugis 6]

About one-quarter of the semi-structured interview respondents indicated they had serious doubts about their children's ability or willingness to assist them in old age, and nearly every respondent could relate a story of someone who was not able or willing to support his parents. Some men even believe that circumstances have changed so dramatically that parents can now expect to support their children indefinitely, rather than receiving assistance from their children. The following excerpt, from a 24 year old with a secondary education who earns his income from odd jobs and repairing electronic equipment, demonstrates this point:

Interviewer: If you grow old, do you expect your children to help you?

Respondent: Me, if I grow old the way I'm seeing the world of today, you can educate your child and then later, he has bad luck and doesn't get a job. So you sympathize with

him and it forces you to help him. You cannot rely on him for future help. So it's better to help him so that he can help himself. [Oyugis 1]

We can speculate that the frequency of normative discussions of parental support indicates that this erosion in the certainty of old age assistance is a contentious issue between older and younger men. Younger men are searching for a normatively acceptable way to balance their responsibilities to their parents and their children. The option of having fewer children offers Luo men a better chance to fulfill all of their obligations. Findings from both the qualitative data and the survey data suggest that the normative discussions essential to a change in desired family size, most likely as a result of the erosion in the norm of parental support, are occurring among the Luo.

The data also demonstrate that Luo men are engaging in the instrumental discussions that will provide the information they will need should they choose to limit their fertility. The frequency of instrumental discussions about contraception and fertility limitation suggests that, as the demand for children declines, either as a result of the growing sense that children are becoming less reliable as sources of old age support or as a result of the increasing cost of raising and educating children, Luo men will have access to the instrumental information they need to limit their family size effectively.

## **DISCUSSION**

At this early point in the fertility decline of the Luo, the family planning networks are as capable of carrying negative information about contraceptive methods as they are of carrying positive information. Many contraceptive adopters, for example, experience unpleasant side effects. These dissatisfied users certainly relate their negative experiences with contraceptive methods to their network partners. An example from one respondent, a 34 year old stonecutter with four years of primary education, demonstrates how negative information about contraceptive methods passes through communication networks:

Interviewer: You also said there were some people you saw swallowing [oral contraceptives]. How did you know?

Respondent: You can ask. I remember one time I asked another woman why she is constantly sick and she told me her stomach has been affected by "family" tablets. [Gwassi 5]

Some male respondents described conversations they had with dissatisfied users or other discussion partners who had heard about gynecological problems associated with intrauterine devices, birth defects they attribute to the use of hormonal methods, etc. Luo men's descriptions of incredible side effects, particularly those associated with oral contraceptive use, show that a modest amount of inaccurate information continues to flow through these networks. Most of the arguments against family planning voiced by the Luo men in the qualitative interviews centered on side effects and fear of the long term health and fertility implications of contraceptive use, rather than strong normative or religious opposition to fertility limitation. This parallels network research findings for women in voluntary associations in Cameroon (Valente *et al.*, 1997). Such rumors and inaccuracies, as well as stories about genuinely dissatisfied users, circulating through the family planning networks impede the spread of contraceptive use among the Luo.

While the Luo men's family planning networks are undoubtedly carrying some negative information about contraceptive methods, evidence from other sources suggests that the majority of family planning discussions probably convey positive messages about contraceptive methods and fertility limitation, and that Luo men are getting the information they need to make informed decisions about contraceptive adoption. In the following excerpt, the same respondent quoted immediately above describes another family planning conversation he remembered:

Interviewer: You have said you always see somebody swallow a tablet. Have you talked to any of these people?

Respondent: Yes, I had talked to one woman from our village.

Interviewer: What did she say?

Respondent: She said that she doesn't have any problems when swallowing these tablets. She can take up to three or four years without having a child, and when she decides to have a child, she just does it without any problem. She is my sister-in-law, my wife's sister. [Gwasssi 5]

In addition, data from the *Kenya Demographic and Health Survey 1993* show that well over 90% of the Luo men sampled know a modern contraceptive method and a source for obtaining it (Table 11.5, p.145). More than one-in-five of the Luo men (or their partners) surveyed was currently using a modern method of contraception (Ibid., Table 11.8, p.148) and slightly more than 90% of these men reported approving of family planning (Ibid., Table 11.15, p.153). According to these data, Luo communication networks are carrying generally positive information about contraception and family planning. Given a decline in the desire for large families, broad approval of family planning, the existence of active family planning networks, and a significant number of current contraceptive users, there are reasons to expect that contraceptive use among the Luo could increase rapidly, with an accompanying fall in fertility rates.

As the value of children to their parents declines, either due to the increasing uncertainty that children will provide support to their parents in old age or due to the increasing expense of raising children, Luo fertility will continue to fall. Limited declines in Luo fertility have already been observed. The *Kenya Demographic and Health Survey 1993* reports, for instance, that between 1984 and 1992 total fertility rates in Nyanza Province fell by 18% (Table 3.4, p.25). Further declines are likely, given the perceived erosion of the normative understanding between parents and children that made high fertility economically rational in the past.

## CONCLUSION

Communication networks are essential components of social change; fertility decline is a case in point. Social change requires transformations in both normative understandings and the behaviors that translate those understandings into socially sanctioned outcomes. The Luo men of Kenya's Nyanza Province currently are engaged in discussions of a number of issues regarding fertility change, including the value of children and the perceived breakdown in the norm of children supporting their parents in old age, ideal family size, and the best means for achieving the aim of having fewer children. Their communication networks are central to the processes of normative and behavioral change that will result in substantial fertility decline. While these processes have begun only recently, contraceptive prevalence is increasing and fertility decline has begun among

the Luo. The communication networks of the Luo men of Kenya's Nyanza Province are likely to facilitate and accelerate these changes.

This search for a new normative agreement suggests that the confidence parents once had in their children's ability and willingness to care for them in old age -- a major incentive for continued childbearing -- is eroding among the Luo. In its place, uncertainty and a new calculus of the demand for children is emerging. The qualitative evidence indicates that Luo men clearly perceive greater benefits from having fewer children than their fathers had, as a result of both the greater expense of raising children and the reduced support parents can expect from their children. The normative underpinnings for fertility decline, therefore, are being established now, expressed primarily in a reduced demand for children. The strong normative content of the parental support discussions suggests that the process of ideational change, the first step in the broader process of fertility decline, is occurring among the Luo.

Family planning, conversely, proves to be more of an instrumental topic, and when Luo men seek information about limiting family size or contraceptive methods and their side effects, a more heterogeneous set of discussion partners is culturally appropriate. These diverse others include more women, agemates, and people younger than the respondents, as well as more individuals who do not know the respondent's other network partners well. This heterogeneity and differentiation might surprise those who would expect the networks of rural men living in villages composed largely of clan members, and who have limited means of transportation beyond their immediate locations, to be fairly predictable and homogeneous. The existence of diverse, instrumental networks, used for gathering information about the means for limiting fertility, demonstrates that the process of behavioral change, the transformation from ideational change to actual fertility decline, is also under way among the Luo.

Further research on the role that communication networks play in fertility decline and other processes of social change seems warranted. Measures of the attributes of respondents' networks, such as their densities and age and sex compositions, provide important evidence of the way in which discussions influence normative and behavioral aspects of fertility decisions. While the network data provide important evidence about the attributes of the partners the respondents are selecting for these discussions, qualitative data provide useful insights into the content of those discussions. Both longitudinal network data and comparative studies of the network characteristics of other rural African men would add greatly to our understanding of the links between parental support and family planning discussions and the process of fertility decline.

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