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AUTHOR Bjorkquist, David C.
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ABSTRACT

This paper describes work in a Tanzanian village for the purpose of gaining a clearer view of work and the societal incentives for work in the United States. It is written for those who work, those who prepare others for work, those who teach and counsel about work, and those who advocate for consideration of worker needs in the design and management of jobs. The description of rural Tanzania calls attention to the economic dimension of work and the social values associated with it. A second dimension of work in Tanzania--the interaction with technology--is also explored. The state of technology and social technology are described. Culture, a primary contextual element in consideration of work and social incentives for work, is addressed in the context of Tanzania, where the strength of tradition and the impact of political ideology, as championed by former president Nyerere, shape the cultural context of work. The study of work in rural Tanzania raises questions about five facets of social incentives for work in the United States that are then examined: the distribution of the returns from work performed, work as a means of supporting consumerism, the interaction of work and technology, the tension between economic competitiveness and humane work, and individual and group membership identities for workers. (Contains 48 references.) (YLB)

SNAPSHOTS FROM TANZANIA

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David C. Bjorkquist, Professor

Division of Industrial Education
University of Minnesota
1954 Buford Avenue
St. Paul. MN 55108

Despite the alert sounded by many observers of contemporary work (e. g. Terkel, 1974; Zuboff, 1988; Karasek and Theorell, 1990; Levering, 1988; Makower, 1981; Schumacher, 1973; Warnock, 1977) the skid in satisfactions to be gained by workers in the United States workplace continues. One of the barriers for individual workers is that society associates certain values with work and pressures workers to accept these values whether or not they agree with personal values. Societal values become incentives for work, either intentionally or because the worker is unaware of the invasion of these values on personal priorities.

Increasingly, the most viable route for workers to follow is one in which they take responsibility for the definition of their own work and for the identification of the returns for which they will expend their energy and emotions. However, one of the difficulties in this approach is the lack of perspective available to most workers in the United States about their own work and the incentives that society has attached to it. This is complicated by the manipulation of social values about work, often for what is perceived to be the benefit of society as a whole (Almen, 1963). When the most visible norms are those of the dominant culture, in this case from within the United States, there is a loss of objectivity and reason to question the bias of influences to which individuals are subjected. With continually shifting societal values about work, it is difficult for workers to feel confident about personal values that run counter to those most strongly professed. Examination of the radically different situation in rural Tanzania, though not presented as an alternative or idealized solution, does offer an opportunity to develop a sharper perspective about the formulation of the social incentives for work.

This paper describes work in a Tanzanian village for the purpose of gaining a clearer view of work and the societal incentives for work in the United States. It is written for those who work, those who prepare others for work, those who teach and counsel about work, and those who advocate for consideration of worker needs in the design and management of jobs.

The Setting

Tanzania. An understanding of life and work in a Tanzanian village is aided by knowledge of the context within which that village is set. Therefore, vital characteristics of Tanzania are described first. Yeager (1989) stated that Tanzania is, "...one of Africa's economically most distressed, socially most innovative, and politically most controversial countries" (p. 1).

Tanzanian economics, social structure, and politics were closely intertwined. As a nation of 26,070,000 people (1990 estimate) and with 364,886 square miles it is geographically larger than the combined size of Texas, Louisiana, and Mississippi (Hoffman, 1991). The main industries were food processing and clothing manufacture and the chief crops for export were coffee, cotton, sisal, and tobacco. Maize was the primary food crop for local consumption. Diamonds, gold, and nickel were extracted minerals. Of the labor force, 90% were engaged in agriculture and 10% were in

industry, commerce, and government. Life expectancy at birth was 49 years for males and 54 years for females and infant mortality was 110 per 1000 live births. In 1986, there were 49,000 passenger cars, 33,000 commercial vehicles, one radio per six persons, and one telephone per 179 persons. The 1987 literacy rate was 85% and 87% of the school age population attended primary school (Hoffman, 1991). The gross national product per capita was $270 in 1985 and Tanzania was classified as a least-developed country (Canadian International Development Agency, 1988).

Historically, Tanzanians have lived communally. The formation of a one party socialist government in 1961, at the time of independence, was an extension of a social organization with which they had experience. Early in 1992, the formation of additional political parties was permitted (Lupatu, 1992). Julius K. Nyerere was Tanzanian President from the time of independence until Ali Hassan Mwinyi was elected in 1985. Tanzania has had the benefit of a stable government and principled leadership during its existence (Yeager, 1989).

> From a very early date, Nyerere made Tanzania Africa's leading frontline state pitted against colonialism and racial discrimination in southern Africa....At no small cost to itself, Tanzania remains firm on the principles of basic human rights, self-government, and majority rule (Yeager, 1989, p. 127).

This stand was costly to Tanzania and from 1965 through 1975 resulted in disruptions in relations with Britain and the United States, primary aid donors, over Tanzanian liberation policy. Most aid programs to Tanzania had been curtailed by 1985 and there was a refusal to negotiate further assistance until the country began to service its $3 billion debt (Yeager, 1989). The Tanzanian government concluded a new agreement with the International Monetary Fund (IMF) in 1986 (Kulokana, 1992). In 1990, the United States provided $40 million in aid to Tanzania while Tanzania made payments to the United States of $79 million (Hoffman, 1991).

In its concern for human rights, Tanzania engaged in a 15 month war with neighboring Uganda that resulted in driving Idi Amin from that country in March of 1979. "The Ugandan war cost Tanzania approximately Sh 10 million ($1.25 million) per day and deprived the country of badly needed fuel, transport, food, and medical supplies" (Yeager, 1989, p 136). "Tanzania had spent $500 million and lost 373 soldiers." (Avirgan & Honey, 1982, p. 196).

The village. The area in which this research was conducted was Arusha Region. Most of the time spent in the Region was in the village of Bonga, in Babati District. Some time was spent in the cities of Arusha and Babati and other villages in the Babati District. The Arusha Region is in the north of Tanzania and borders on Kenya with much of its territory in the Great Rift Valley.

Bonga, a village of about 4000 people, was spread across the hillside with houses and farm plots interspersed. There was a primary school, a dispensary, several small shops, and an open market along the road. The main enterprise in Bonga was subsistence agriculture. Most families in the village had a small farm (*shamba*, in Kiswahili) adjacent to their house or in large fields in the valley that were subdivided into individual plots. A common sized shamba was about one hectare (2.47 acres). Maize and beans were the primary crops raised for consumption and for market, if there was a surplus. To lesser degrees, cassava, pigeon peas, millet, coffee, and sugar cane were also grown. Several kinds of bananas were grown for local consumption. Cattle, goats, sheep, and donkeys were herded for grazing in a village commons and along roads, walking paths, and other untilled places. Fish farming had been introduced in the Region and a family fish pond of 150 square meters had the capacity to produce 75 to 150 kilograms of Nile tilapia each year (Murnyak & Murnyak, 1990).

The success of the agricultural enterprise, and therefore the supply of food, was highly related to climatic conditions, especially rainfall, in the cycle of the growing season. Grains were directly effected by drought and a lack of rain also made it more difficult to keep adequate water levels in fish ponds, caused grass used for grazing to dry, and reduced the milk production of cows and goats. The grain supply was for the short term (less than a year) because storage facilities were not adequate to keep it for longer periods without spoiling and would not protect it against insects and rodents. There was no electrical distribution system, telephone, or mail service in the village.

In addition to farmers, other evident occupations in the village included shop keepers, grain millers, lumber sawyers, furniture makers, a forester, medical aides and midwives, primary school teachers, clerics (Christian and Muslim), government and political party officials, and brewers of alcoholic beverages. There were buses and trucks that made regular runs through the village and drivers and their assistants were seen. It was most common for those in these occupations to also have a shamba for the growing of food for their own consumption.

During my six week stay in Bonga I worked with a group of seven students from a technical school located at Nangwa, Hanang, Tanzania. These students were from the Bonga area and were in the village during their summer vacation. They were required to be engaged in a practicum related to their field of technical study while on vacation. Students in carpentry worked under my supervision and related instruction, primarily in mathematics and English, was provided for students in carpentry, electrical construction, radio repair, automotive electricity, and masonry. I worked with some other members of the community in the repair of school desks and a variety of other projects.

Work and Economics

Buying power. The economics of rural Tanzania can be better understood by consideration of the earning and buying power of rural Tanzanians, an important outcome of economic policy. Though minimum wages were established to stave off urban unrest, prices paid to farmers for agricultural commodities were controlled to assure urban dwellers of cheap food (Kaplan, 1978). Consequently, wages paid to farm workers were low. The going contract rate for hoeing a hectare of beans was 2000 Tanzanian shillings (2000 T Shs). It required about two six-day weeks to complete this work. The exchange rate in early 1992 was 232 T Shs to one U. S. dollar. Thus a person could earn the equivalent of $8.62 U. S. for 12 days of work, or about $.72 per day. It required four days for a woman to weave a mat from palm leaves which she sold for 500 T Shs, or the equivalent of $2.16 U. S. The price charged by a skilled furniture maker was 1000 T Shs (about $2.31 equivalent) per day.

Buying power can be illustrated with the cost of some items in the Tanzanian market. A pair of shoes was about 20,000 T Shs, a pair of used trousers was about 900 T Shs, a bar of soap was about 60 T Shs, a 90 kilo bag of maize was selling for 5000 T Shs, a 200 page book was 2600 T Shs, and a daily newspaper cost 50 T Shs. A refrigerator was advertised in the newspaper for 245,000 T Shs. Many items defined as necessities in the United States were far outside of the buying power of ordinary rural Tanzanians.

Occupational choice. Among those interviewed about work were students from a variety of schools. The students encountered, 13 all together, were enrolled at a technical school, secondary schools, or were awaiting word about their acceptance for higher education institutions. All of these individuals were 20 years or older and had been selected by competitive examination for the school they were attending. Those who were waiting for acceptance for higher education had completed lower levels of education that had required selection by examination. The one year of

national service required of all secondary school finishers (A level) had been completed by two of the men and one woman was presently serving in the Tanzania People's Defense Force.

When asked about their occupational choices and career ambitions, students expressed their economic concerns first. Students attending a technical school compared what they understood they could earn as skilled crafts persons with their present earning power. One student explained that as a carpenter he could make a door with frame in three days and sell it for 2500 T Shs. He considered that this compared favorably with the 2000 T Shs that could be earned by two weeks of work hoeing a hectare of beans.

The capacity to increase earnings through the practice of a craft was related by the students to improving their way of living. The desire to be able to support a family, to have decent clothes, and to gain the security of always having food were expressed. What was described by these young men was like the ambitions of students reported by Joinet (1985, May). When asked about the purpose of their diligent studying they responded that they wanted to have regular earnings so they could more fully participate in "maisha mazuri", the good life. To them this meant having nice, clean clothes, shoes, a decent house with furniture, a family, and secondary education for their children. A life of dignity did not require extravagant purchases or conspicuous consumption.

In the Tanzanian village context, from which all of the students interviewed in the present study came, there were some resources that they expected to have available to them that would not have to be purchased from their earnings. Although they may be prepared to work as electricians, furniture makers, auto mechanics, or teachers, there was an expectation that they would have a shamba and would be able to continue to raise food for themselves and their dependents. Having a shamba, together with cows or goats, could provide for most of their food if growing conditions were favorable. They also expected to be able to provide a house without any major expense. Clay suitable for making bricks or for plastering walls woven with poles and branches could be dug in the village, rafters could be cut from nearby trees, and thatch could be cut and dried for covering a roof. Lumber would need to be obtained for doors and window coverings, if they were used. A concrete floor would be comparatively expensive as would be a corrugated metal roof and the trusses required for support. When basic survival needs can be taken care of without the exchange of money, earnings from the practice of a craft or other occupation can provide for maize and beans during drought, food items that are not grown, such as cooking oil and salt, clothing, and discretionary purchases, such as reading material and education beyond primary school.

The subsistence example described may be disrupted if the worker had to move to a city in order to obtain a job. When this occurred, housing became more expensive, land for growing food was more limited, and it was more difficult to keep livestock. This, in fact, was one of the concerns stated by the students. In some occupations moving to a population center would be a near necessity, as in auto mechanics, electrical construction, and radio repair. Government policy encouraged rural and self-employment (King, 1988) and the students considered it more nearly ideal to settle in a village and practice a trade as an entrepreneur. However, a major obstacle to doing this was being able to purchase the tools needed to practice. The cost of acquiring the hand tools that a Tanzanian would need to set up a furniture making shop, for example, would not be considered to be a major expense in the industrialized world. However, the cost was a primary obstacle for a young person starting in a trade in rural Tanzania.

Economically, at least, it was difficult for a person to identify with a single line of work. In the village of Bonga the common mode was for households to have a shamba. In addition, someone in the family may have had what Joinet (1985, May) called a "secondary activity", a source of income that provided an additional means of gaining elements of the good life. This was

especially important when no grain surplus was produced for sale. There were two women (sisters) who, in addition to working their shamba and raising their children, made and sold clay pots as a secondary activity, a skill that they had learned from their mother. There were several women who brewed and sold beer as a secondary activity. A sawyer also had a shamba to provide food for his household. Teachers in the village primary school most often had moved into the village because of their assignment to teach there and were provided with a house and a shamba or they had access to the produce of the school shamba. One form of work common across most residents of the village, from young to old, was subsistence farming. If common experience has a unifying effect, it was present in this setting. It may well be one of the reasons that Joinet (1984, June) referred to the village as "...the womb in which the nation is being born" (p 11). On the other hand, individuals achieved a degree of identity from their nonfarming activity. There were individuals who were known as the furniture maker, the potter, the headmaster, the brewer, and the forester. Even in the case of farming there were distinctive activities that provided some identification, including milking a dairy cow and raising coffee.

Joinet (1985, May) declared that in Tanzania, "People need a secondary source of income" (p 15). In the case of those who were paid a salary, it was to supplement earnings that had not kept up with inflation. Those who were subsistence farmers needed it in order to afford secondary and more advanced levels of education, better health care, transportation, reading materials, and refinements in their homes.

Reflections. Rural Tanzania calls attention to the economic dimension of work and the social values associated with it. Within the context of the village it was possible for one person to exchange the products of work with another person with the expectation of parity. This tended to equate the value of various forms of work performed. A significant proportion of the production of work, notably foodstuff from the shambas, never entered the monetary system. It was when rural Tanzanians entered the international market that they experienced a severe depreciation in the economic value of their work. Several days of work were required by a Tanzanian worker to earn enough to buy a barrel of oil, a necessary commodity, something that could be done by workers in the industrialized world in a few hours.

Within the rural Tanzanian economy of survival, workers gained access to limited discretionary consumption and there were few opportunities for workers to identify themselves by practices of consumption. Conspicuous consumption would have attracted negative attention and been a violation of community solidarity. The Leadership Code of 1967 prohibited such behavior for government and political party officials (Joinet, 1986, April).

Engagement in subsistence employment helped to develop bonds of solidarity among rural Tanzanians. Most of them had the practice of farming in common, were subject to the same conditions that influenced the success of that enterprise, and shared resources that, in one sense, were held in common. Security was increased by having a distinctive form of work to provide for necessities and discretionary purchases not attainable through the return from the shamba. This distinctive occupation could become a personal identifier that was held by few, if any others in the village. However, it was important to continue to be concerned about the well being of the community.

Work and Technology

A second dimension of work in Tanzania was the interaction with technology. By a simple working definition "... technology is concerned with 'knowing how,' how to make things and do things" (Kranzberg, 1991, p 235). Technology, therefore, includes getting things done with physical objects such as tools and machines as well as altering conditions using the tools of social

interaction and psychology. An electric motor is an artifact of technology as is a work team.

State of technology. Rodney (1982) described the advanced state of African technology in such mechanical fields as architecture, construction, iron mining and smelting, agriculture, cloth manufacture, and leather tanning prior to the fifteenth century. During this same period, there were well developed systems for providing equitable access to land, establishing divisions of labor, and mediating disputes. Rodney's major contention was that through the form of colonization employed, Europeans stifled the development of technology in Africa and caused it to regress. This was done by taking the most creative minds from the continent as slaves, breaking up existing social structures, importing only raw materials and not manufactured goods from Africa, and forcing the purchase of products manufactured in other parts of the world on African consumers. More recently, Rodney (1983) provided a case study of the breakdown of existing social and economic systems by the establishment of the sisal industry and the forced migration used to provide the needed workers.

The description of appropriate technology offered by USAID (1976) suited the rural Tanzanian circumstance.

> In terms of available resources, appropriate technologies are intensive in the use of the abundant factor, labour, economical in the use of scare factors, capital and highly trained personnel, and intensive in the use of domestically-produced inputs (p. 11).

It was evident that Tanzanians had developed technological solutions that fit the problems they faced most often. For example, a rafter system used to construct a thatched roof resulted in a hip roof design frequently seen in the Arusha Region. Rafters were tied together and supported by structural members with the ends of the roof sloped and closed to provide protection from the weather. All of this was constructed with locally available materials. After one stormy night corrugated metal roofs were completely removed by the wind, but none of the thatched roofs were seriously damaged. People were seen adding thatch to their roofs where minor storm damage had occurred, but roofs and rafter systems remained in place. It is noteworthy that the technology needed to construct a thatched roof was not held by a small group of experts but was known to large numbers of Tanzanians. The technology of constructing roof trusses and covering them with corrugated metal was more expensive, known to fewer Tanzanians, and appeared to be less well developed for local conditions.

Other technologies were observed to be widely held among rural Tanzanians. Many made bricks, both sun dried and kiln fired. Many also knew how to lay a brick wall and how to construct a wall with poles and branches filled and plastered with mud. The benefits of interplanting of crops that support each other rather than compete, a form of sustainable agriculture that has been practiced in Tanzania for generations (Scommenga, 1992), was widely understood. People described the advantages of interplanting and used it in overwhelming proportions over monocropping in shambas. Butchering was performed by many people, and there were many who made charcoal. Physical skills that were used in conjunction with tools, such as a hoe, saw, plane, and machete, were highly developed. The combination of strength and accuracy that were observed resulted in consistent performance. Because the human body was a primary source of power, the development of physical skills began early in life and resulted in well coordinated body movements.

Simplicity. A technological problem faced by rural Tanzanians was the extraction of oil from sunflowers. In the United States it was done on a volume basis with the use of solvents. Because of the materials, equipment, and power required, this solution did not fit the rural Tanzanian situation. I was told that recent breakthroughs in the simplification of the mechanical extraction of sunflower oil now made it practical (Bjorkquist, 1992). The selection of mechanical

devices often favored simpler solutions. This was true at the filling station where the pumps could be powered by hand when the electrical power was off. The bicycles were durable one speed machines without complex derailleurs and fragile cables on brakes and shifters. The water pump at the well could be disassembled and repaired. Experiences were recounted of technologically complex devices made useless because they required other technologies to make them function or to repair them.

Social technology. The application of social technologies was evident in rural Tanzania. Some of the systems used for the management of social affairs had their roots in tribal tradition, such as arrangements made for marriages. Others could be traced to more contemporary beginnings, including the political organization of Chama Cha Mapinduzi (CCM), the Tanzanian socialist party. [The translation from Kiswahili of Chama Cha Mapinduzi is The Revolutionary Party.]

An example of a social technology was that used for the rearing of children. Babies were usually with their mothers, whether near the house, in the shamba, or out in the village. When babies cried they were suckled. As babies got a little older, they may have been with other family members between the times that they were most likely to want to eat. Before walking, rarely were they put down on the ground or on a floor and they were never left alone. Small children were brought up by a whole group of people who lived around them. This included adults in addition to the parents, older brothers and sisters, and other relatives. The group taught, through example, social customs and behaviors that were acceptable and expected (Joinet, 1984, November).

One of the more extensive social technologies applied in Tanzania in recent times was that of villagization. The purpose of this action was to make the village the basic economic and political unit. From 1969 to 1975 rural Tanzanians were induced, and sometimes forced, to move into villages from the countryside where they were scattered. In 1970 there were less than 5% of the population living in villages. By 1977, about 80% of the total population was living in 7,700 villages with an average size of about 1700 (Whitaker, 1978). The political system was developed to manage the affairs of the village and to connect it to the national government.

Reflections. Many forms of mechanical technology were used in rural Tanzania but the worker appeared to be held in higher value than the technology. Moving toward the use of more complex technology and a diminished human role was not to be automatically favored. Feenberg (1991), has described this as one of the elements of a critical theory of technology, "...technology is not a destiny but a scene of a struggle. It is a social battlefield, or perhaps a better metaphor would be a *parliament of things* on which civilizational alternatives are debated and decided" (p. 14).

Rodney (1982) gave examples of the inappropriateness of some of the technology that was brought to Africa by Europeans. The example of the comparative storm damage to the corrugated metal roofs and the thatched roofs may be a case in point. Many Tanzanians have read Rodney's book and many have had experiences with imported technology that was not durable, was not suited to the task, or that violated valued principles, such as the worker's dignity. At the same time, many Tanzanians wanted to learn the technology used in the industrialized world, for example, electrical power, in the hope that it would be a solution to many of their problems.

Rural Tanzania demonstrated that technological solutions need to be backed by systems. Solutions for settling disputes needed to have a system of mediation to support them. Systems that included tools and materials for repair were developed for the mechanical devices that were in use or the devices did not survive. Workers were valued for inventive solutions that would not be necessary in an industrialized culture with a specialized tool for every purpose.

With the desire to learn technology was an interest in learning the English language, the European language most often used in Tanzania, a former British colony. With a limited amount of technical matter written in Kiswahili, English was seen as an access to technological knowledge and reference. Nyerere (1992), in response to controversy over the language for secondary school instruction, stated, "...I myself would like to see us continue to teach English in our schools, because English is in practice the Kiswahili of the world" (p. 14). Increasingly, understanding English was becoming a key to opening the understanding of the technology of work for Tanzanians. As a result, they carry the burden of learning English, usually the third language, following their tribal tongue and Kiswahili.

Work and Culture

Culture is a primary contextual element in consideration of work and social incentives for work. In Tanzania, the strength of tradition and the impact of political ideology as championed by Julius K. Nyerere shape the cultural context of work.

Tradition. Tanzania has over 120 ethnic tribes, each with its own language, within its territory (Moffett, 1958). But,

> Because of the constant movement and mixing of peoples between the tenth and nineteenth centuries, it is in most cases not possible to trace the precise cultural origins of Tanzania's contemporary ethnic groups (Yeager, 1989, p. 7).

The Indian Ocean island of Zanzibar was probably visited by early merchants "from Egypt, Assyria, Phoenicia, Greece, India, Arabia, Persia, and even China" (Yeager, 1989, p. 8). By the ninth century, settlements were established by the Arabs and Shirazi Persians on the offshore islands of Pemba, Zanzibar, Mafia, and Kilwa Kisiwani (Prins, 1961). From the intermingling of the Arab, Shirazi, and Bantu-speaking people of the mainland emerged the Swahili culture.

One important outcome of the ethnic mix in Tanzania was that no group gained dominance, as was the case in some other African nations. The largest ethnic group in Tanzania was the Sukuma who account for about 13% of the population, with no other group exceeding 5% (Dobert, 1978). The unity of the people of the nation has been further supported by the use of Kiswahili, the official language of Tanzania.

In recent times, members of many groups have moved from their traditional territories seeking farm land, for employment in the cities, and for other reasons. Yeager (1989) summarizes the effect of cultural differences.

> For the most part, ...ethnicity is localistic and passive rather than aggregative and assertive. Throughout Africa, colonialism destroyed the organizational bases of traditional societies. But in Tanzania neither colonialism nor the African reaction to it resulted in a permanent reintegration of these societies into larger communal groups. Julius Nyerere was born a Zanaki. This makes him part of a community representing only about one-half of 1 percent of the population. Nyerere organized TANU, not because he was a Zanaki, but because he was an African nationalist (p. 53).

Conversations with individual Tanzanians revealed their respect for traditions of tribal heritage. Upon becoming acquainted, one of the things they identified was their tribal affiliation and they proudly described tribal customs. After describing the circumstances of an African tribe, a subsequent question to me was about my tribe and tribal membership in the United States.

African tribal customs were upheld in many social relationships such as marriage, child

rearing, and husband-wife division of labor. True to tribal tradition, there was a mutual support system among people. Individuals worked for each other without the expectation of pay and without exhibiting motivation driven by obligation. In other words, it was done cheerfully. Voluntary effort on behalf of the community or some segment of it was often seen. In several instances, the extent of this voluntary work could be measured in days per week. Joinet (1985, July) made similar observations which he attributed to the need for the security of solidarity within a subsistence economy.

In the subsistence economy of rural Tanzania, survival was dependent on remaining attached to others in the family and community. The best security was in being connected to a horizontal network that provided mutual aid and to a vertical network that connected those with more education and other means with those who have less. Educated members of the family were expected and were pleased to provide help for the family when it was needed, because, "No one who is educated has done so without family help" (Joinet, 1985, July, p. 2).

One of the ways in which tradition shaped the values surrounding work was in the expression of individualism. When asked about the opportunity to express their individuality through their occupation, the technical school students responded forcefully and unanimously. "A person who is an individual does not fit into the tribe" (Bjorkquist, 1992). Though the need for occupational specialization was recognized, it should not become a source of false pride and should not be used to try to elevate one's personal status. One of the consequences of behaving in a prideful manner could be that people who have need of a craft person's service might take their business to another practitioner. The use of polite speech and showing of respect was believed to contribute to the success of an enterprise.

Political ideology. Tanzanians with whom I spoke were politically well informed. They talked about current national and international events accompanied by a knowledge of geography. Secondary school students often expressed their interest in the study of political science. I was told that the reading of Rodney's 1982 book, *How Europe underdeveloped Africa,* was required reading for all university students.

The political ideology of Tanzania cannot be discussed without describing the influences of Julius K. Nyerere. Nyerere was instrumental in forming and leading the Tanganyika African National Union (TANU) (Graham, 1975). From this point, Nyerere lead the six-year campaign for his country's freedom and in so doing came to be recognized as the "Father of the Nation, Mwalimu Nyerere" (Lupatu, 1992, p. 1). Mwalimu is the Kiswahili word for teacher and is used affectionately in reference to Nyerere (Kaplan, 1978).

In his 1962 Inaugural Address, President Nyerere laid out his vision of a united nation in which all could live in equality and dignity. Joinet (1984, June) stated the goals of the government and the political party, CCM.

1.Independence. There is no dignity without freedom.

2. Nation building. African countries have artificial borders, carved out by foreign diplomats at the Berlin Conference in 1885.

3. Building an egalitarian or socialist society. The Leadership Code, published with the Arusha Declaration, is trying to stop the development of this state bourgeoisie of 'Wabenzi'. [Wabenzi is a coined Kiswahili word for those who aspire to drive Mercedes-Benz automobiles.]

4. The satisfaction of the basic needs of all: food, clean water, housing, clothing, hygiene, education, health services for all(pp. 8-9).

On the basis of these goals, strategies were designed for their accomplishment. These strategies, in turn, determined the nature of enterprise in Tanzania and influenced the social incentives associated with work. For example, the commitment to an egalitarian society shaped Tanzania's economic development so that it would reduce social inequalities. With economic reversals in fulfilling national development plans, self-reliance became a goal and a means of economic stability. The value of rural workers was directly affected as they were told that their productivity was crucial to the national movement toward equality.

Critics, primarily external, attributed Tanzania's economic decline to policies that implemented the commitment to equality and diminished incentives for individual initiative (Focus, 1988; Lofchie, 1988). At the same time, internal reports cited increased numbers of schools and dispensaries, higher literacy rates, new village water supplies, and other welfare benefits. In comparing Kenya and Tanzania, Lofchie (1989) wrote,

> From the standpoint of liberal Kenyans, disturbed by the social inequalities that have accompanied the country's prodigious economic growth, Tanzania remains an enduring symbol of socialist egalitarianism, an epitome of the conviction that economic development should not be pursued at the cost of social misery. For economically pragmatic and centrist Tanzanians, Kenya is a constant reminder of the opportunity cost of two or more decades of failed socialist policies, a living national embodiment of the sacrifices imposed upon an entire generation by political leaders unable to acknowledge the inadequacy of their socioeconomic model (pp. 16-17).

Yeager (1989) stated that the Tanzanian leadership was forced to consider "...the dichotomous and politically dangerous alternatives of equality without growth or growth without equality" (p. 106).

Joinet's (1984, November) conclusion was:

> ...the key question to be faced by all African states, political leaders, researchers and producers, whatever their political system or cultural environment may be and whatever the state of the economy may be is: How to develop modes of production that will be both competitive and African? (p 12).

Reflections. Tanzania has a centuries old tradition of communal living on which its present political organization was built. Though the nation has many ethnic groups, it has benefited from its internal harmony, stable government, and strong principled leadership. Its citizens have been taught to take pride in being Tanzanian. Rural Tanzanians were aware of and worked within the context of their clan and tribal membership, national citizenship, and African identity. The values of these traditions and political entities were part of the reason for their work. It was evident that incentives to work for the benefit of the society had high priority. This was observable in such things as volunteerism, the cultivation of group solidarity, and the stated determination for national self-sufficiency. Work was a unifier and there were limits to using it as an expression of individuality. This reduced the desirability of individual identity through work that lead to personal gain at the expense of contributing to the purposes of society. However, it encouraged personal identity founded on work on behalf of the group. The status of such work as child rearing, which was shared by many, seemed to be raised by this social value.

Tanzania made a clear choice of egalitarianism over economic prosperity. In major ways,

this has equalized the value of all work consistent with the traditions of the people. There was an understanding that Tanzania was economically poor, that it was poor for a cause, and that the cause of the poverty was known. A higher level of prosperity could have been attained, with international aid and the requirements that would accompany it, but it would have been at the expense of accepting, to a greater extent, the new colonialism of economics. People were sensitive to the exploitation of one class of humans by another that this could cause.

As a Tanzanian and African, Julius K. Nyerere has influenced values, including the social incentives for work. He was recognized and honored by many for the values he taught while he was blamed for misleading the people by some. In either case, he made the major issues clear. To the extent that individuals think about the social incentives for their work, this clarity should be beneficial.

Conclusions

The declared purpose of the preceding description of rural Tanzania was to gain perspective about work and the societal incentives for work in the United States. It was written for those who work, those who prepare workers and teach about work, and those who advocate for workers. The sharply contrasted background of social values associated with work in Tanzania is intended to make those values in the United States more visible and to bring into focus changes that are subtle when viewed within one social setting. Thus, this study of work in rural Tanzania brought forward questions about five facets of social incentives for work in the United States. These were: the distribution of the returns from work performed, work as a means of supporting consumerism, the interaction of work and technology, the tension between economic competitiveness and humane work, and individual and group membership identities for workers.

Distribution of returns. Complexities of the question of what constitutes fair return for work are brought to mind by observation of work in rural Tanzania. It is apparent that the material return to workers in this circumstance was little more than that required to sustain life. Tanzanian workers are talented and work hard but the return for their effort is extensively controlled by forces outside of themselves. For example, Scommenga (1992) reported:

> Under pressure from the World Bank and other large donors, countries like Tanzania are forced to cut spending, limit imports and increase exports to pay their debts--at the expense of food production, jobs, the environment and the health and education of a generation of children (p 51).

Most rural Tanzanians were engaged in work that is, in the world frame, defined as menial and was therefore devalued. The production of raw materials, on a small scale, occupied most of them. Relatively few were involved in industry that added value to those goods. Industrially powerful nations have used countries like Tanzania as sources of raw materials and have reserved the more profitable processing enterprises for themselves. The producer of raw materials remains at an economic disadvantage in the exchange between raw materials and finished goods. An example was in the case of the sale of cotton and the purchase of cloth. Cotton was grown in Tanzania, made into cloth and cloth products in more industrialized countries, and some of it was returned to Tanzania to be sold there. A substantial portion of the price of cotton products was in the cost attributed to processing and manufacture. Lower paid cotton producers had few alternatives but to pay for the services of higher paid manufacturing workers if they wanted to have cotton products. By the power of economics, the growing of cotton was appropriated to one group of workers and the making of cloth and cloth products was reserved for another group. (For a more complete investigation of the impact of the international marketplace, see Lewis, 1992.)

Work in the United States is subject to similar discriminatory assignment. Certain jobs are

appropriate for certain groups of workers but not others. Earning differentials between workers of color and white workers and between females and males suggest that this occurs for economic reasons. Practices such as job deskilling further aggravate differentiation among workers by reducing the status, intrinsic rewards, and earning potential of jobs and those who perform them. Jobs can be fitted for a targeted population of workers to whom lower wages can be paid. Feenberg (1991) made the case more comprehensively:

> The values and interests of ruling classes and elites are installed in the very design of rational procedures and machines even before these are assigned a goal. The dominant form of technological rationality is neither an ideology (an essentially discursive expression of class self interest) nor is it a neutral requirement determined by the "nature" of technique. Rather, it stands at the intersection between ideology and technique where the two come together to control human beings and resources... (p 14).

As a nation, Tanzania has made choices that have had a bearing on the social incentives for work. The choices have been to be nonaligned, self-sufficient, egalitarian, and a leader against colonialism and racial discrimination in Africa. It appears that workers have benefited from this commitment to human dignity, but it has been at a price. The benefits have been in the form of unity among people, an honoring of African tradition, and increased control over personal destiny. The costs have been economic. Most enterprise has not been competitive in the international market and worker earnings have been restricted. Buying power has been decreased by inflation, many consumer goods are not within the reach of the mass of people, and the avoidance of hunger and physical afflictions cannot be afforded always.The correctness of Tanzania's choices has been argued, usually from one political bias or another. What cannot be disputed was that Tanzania made deliberate, conscious choices.

It is not always apparent that there is a general consciousness about choices made and their impact on work in the United States. Wirth (1983), in the tradition of John Dewey and Paulo Freire, wrote of weighing political and economic practices as means to achieving human individuality and community. But, the quest for economic gain generally is accepted as primary and changes intended to increase productivity are infrequently challenged. The voice that speaks for the concerns of workers is weak in comparison to that on behalf of profitability. Wirth (1992) charges that "...American management is still in the grip of the military metaphor of ...the captains of industry and foot soldiers of labor" (p 54). It is often difficult to tell that the debate over worker concerns is held and there is suspicion that the case is conceded because past disputes have established that economic gain should dominant over the humanity of workers, in spite of the contention, "For [society's] economic survival, people at work have to be treated in terms of their highest human capacities and not as hired hands" (Wirth, 1992, p 65).

It is not sufficient for industrial educators to develop the skills and knowledge needed by their students to perform jobs. Those who are dependent on the earnings from their work need to be informed about conditions of the workplace that can serve to benefit or harm them. Such information can help workers to understand the choices that are open to them and to escape from seeing themselves as victims. They may learn that there is little corrective action that a single worker can take. Industrial educators, whether in vocational or general education, are primary bearers of the responsibility for education for and about work. There is urgency to their acceptance the broader assignment to teach about the workplace and how it effects its occupants.

Consumerism. Rural Tanzania was a reminder that choices about consumption can be made. People there live dignified lives while consuming much less than those in the United States. In the United States, work is often a means of paying for what has already been consumed

and consumption is offered as a means of achieving a higher quality of life. Karasek and Theorell (1990) observe:

> Economic logic tells us that material affluence should bring psychological well-being. But is this happening? In many ways, working populations in industrial countries such as the United States and Sweden, who should be experiencing the highest levels of satisfaction in history, are showing increasing signs of stress (p 1).

A companion of consumption is waste which accumulates on the ground, beneath the surface, in water, and in the atmosphere. With the concern that is held for the environment, work can become a means of reducing waste and helping to preserve the ecology. In some cases, human effort can be substituted for material. For example, cattle and goats that are herded do not require fencing. Bottles used for soft drinks can be reused repeatedly while cans used for the same purpose can, at best, be recycled. This was very evident in rural Tanzania. Muscle power often replaced carbon fuels, repairable products were favored over those that were disposable, and products that no longer fulfilled their original intention were often salvaged for another purpose. It is not suggested that the United States adopt the Tanzanian way of life but that observations about Tanzania be used to better understand the place of work in United States society. Because there are new factors to be considered (e. g. environmental destruction), there are additional questions about social incentives for work and the ways in which work functions are performed. Over and above the satisfactions of contributing to environmental conservation, the repair and salvaging of products can result in greater societal contributions and intrinsic rewards than the work of replacement and disposal.

Issues of consumption and waste are of critical global importance. As a major consumer among nations, citizens of the United States have special responsibilities. Industrial educators, because of their preparation and orientation, have opportunities to address issues of consumption and to teach skills that can reduce consumption. Technological literacy includes intelligent consumerism and can teach the pride of problem solutions that conserve resources. Alternatives to additional consumption can be taught together with the personal and social costs of waste. Importantly, choices for consumers can be clarified and pressures to define success according to consumption can be countered.

Technology. There was a different approach to finding technological solutions for problems of mechanization in rural Tanzania than in the United States. In Tanzania it was apparent that simpler technological solutions were usually better. Kaplinsky (1990) described what he called "indigenous technological capability" (p 210). This capability incorporates searching among technological alternatives, including forgotten technologies previously used. Further, successful use of mechanical technology requires adapting to local conditions and often means stretching machine designs beyond their originally intended limits (Kaplinsky, 1990). In rural Tanzania, more complex solutions often required other technologies to support them and created a dependency that could be immobilizing. For example, a miller did not want to have an electric motor on a grinding mill if the voltage and regularity of the electrical power were unreliable. Kaplinsky (1990) identified three sets of criteria in considering the specification of appropriate technology. Economic appropriateness is defined by the mix of capital and labor. Among factors of social appropriateness are control, accessibility, income distribution, and sanitation and health. Environmental appropriateness includes issues such as energy consumption and supporting infrastructure. The inappropriateness of placing a technology in a setting without regard for the support it required and the impact it would have was dramatically demonstrated in rural Tanzania.

In the United States consumers have become accustomed to (perhaps enamored with)

technological systems that contain "black boxes" and they seldom resist the use of technology on the basis of not understanding it.

> Carried to the limits of its possibilities, automatism is embodied in the useless gadget, a marvel of purposeless complexity....It may possess some ostensible purpose (e. g. to automatically raise car windows), but in reality it exists simply to display its own workings (Feenberg, 1991, p 110).

The evaluation of technology is often limited to the economics of what consumers will buy and does not consider ecological impact, including the effect on work.

Learners in the United States may not develop a full understanding of technology because their attention is usually directed to only the most advanced technological artifacts, resulting in such narrow conclusions as the equating of technology with computers. In solving problems, simpler technology could often be chosen but is not for a variety of reasons, including appearance, convenience, and novelty. Jonas (1991) writes that we become subject to "compulsive advance" (p 104).

> [Technological advances] ...have one premise in common without which they could not operate for long: the premise that there can be indefinite progress because there is always something new and better to find. ...it is backed up by an impressive record of past successes, and for many this is sufficient ground for their belief (Jonas, 1991, p 104).

The Tanzanian perspective suggests that the trade off in selecting technological solutions needs to be carefully weighed. Too often, the impact of technology on human dignity, personal autonomy, civilizational health, and sense of accomplishment is ignored. Technology is incorrectly "...deemed 'neutral' without valuative content of its own" (Feenberg, 1991, p 5). Technology that is incompatible with human needs and isolated from supporting machine systems is vulnerable to under utilization, premature breakdowns, and discard.

As a field, industrial education is prone to skipping over thousands of years of technological development in order to teach what is latest. This tends to separate present day solutions from the past and may give learners incomplete understandings and distorted values relative to technological choices. This is coupled with a disposition that tends not to seek technological solutions outside of the industrialized world. For example, the historical development and present use of technology in Africa largely is ignored by industrial educators and there is little understanding of this non-Western frame of reference.

Technological solutions are important in our culture, but complexity is not the determinant of worth. Feenberg (1991) argued that integrated designs that solve more than one problem are to be preferred. The simplification of design and appropriate technology are not limited to developing countries. The factors of economic, social, and environmental appropriateness fit industrialized settings. Industrial educators can help to sound the warning of technology that unquestioningly is allowed to propel itself into the workplace, home, and other institutions of our society.

Competitive and humane. Joinet (1984, November) asked whether Tanzania could become competitive and remain African. He was concerned about Tanzania's capacity to produce goods that would provide for the international exchange required and would maintain the stability of the Tanzanian economy. This was especially important because of the desire of Tanzania to remain independent and to not fall under the influence of some more powerful nation intent on proselytizing its political ideology. At the same time he recognized the tension between the goal of economic stability and remaining faithful to the African heritage of communalism, which, in the African context, is to remain humane.

The tension between competitiveness and humaneness exists in the United States. Concern for the rights of all individuals is professed, yet reports of job related maladies and worker mistreatment increase. Workers in the United States have seen job changes and the erosion of their buying power. As they try to maintain their buying power, they experience other losses. Gibbs (1989) reported decreases, beginning in 1973, in the amount of time that U. S. workers have to spend with their families and in leisure pursuits. According to research by the Bureau of Labor Statistics, the percentage of workers with more than one job has risen by 52% since 1980. About 44% of these workers were working at more than one job in order to meet regular household expenses or to pay off debts (Stinson,1990). Goodman (1992) wrote about worker exhaustion, callous mistreatment, people as interchangeable digits, the deteriorating relationship between work and worker, and work gone awry.

In many instances where workers are alienated from their work, questions about viable alternatives are not being asked. Concerns for the well-being of the worker are secondary to meeting the competition, whether the competitor is listed in the local telephone book or is across an ocean. Being competitive and humane may not have a perfect resolution, but "... technology does not pose an insuperable obstacle to the pursuit of 'humanistic' values" (Feenberg, 1991, p 127). Those who suggest that organizations can afford to become humane *after* they become competitive miss the point.

Workers who are alienated from their jobs do not need to suffer in silence and they can learn some of the alternates to blaming someone else. While others may contribute to the deteriorating relationship between work and worker, the worker can be taught to do something about it. Workers can be supported through learning to analyze their work situations and to take control of their jobs where they can. Industrial educators can be instrumental in teaching how to recognize and confront dehumanizing work situations and how to weigh the costs and benefits of worker choices.

Worker identity. In the tribal tradition of rural Tanzanians, rewards for individualism were limited. It was more important to be a contributing member of the family, clan, and tribe than to gain personal success. Though the egalitarian ideal may not be achieved, there was an equaling of the social merit of all forms of work. A factor contributing to this was the sharing of many work responsibilities, including farm work and child rearing. The well being of the community was not in the hands of a few designated individuals. There were many who willingly contributed as volunteers. Individuals supported the work of each other so that it might be successful.

Consideration of the Tanzanian model should be added to efforts in the United States to promote cooperative learning, work teams, participative management, and other efforts aimed at building group identity and success. The stature of individuals does not need to be reduced by these and similar processes. Those who work for the betterment of the organization should not be placed at an disadvantage relative to those who work only for themselves. But, when workers do not feel akin to their jobs or when the health of the society falters for the sake of advancing individual rights, is the security and support provided by functioning groups. Even the instructional setting and method used in industrial educatior. can contribute to accomplishing these ideals.

Alternatives to full-time employment outside of the home are not well accepted in the dominant culture of the United States even though such work may be personally and socially productive. At the same time, many have found that there is not a continuing place for them in the labor force. Some who are unable to gain employment or who are separated from their employment experience severe emotional distress. Among those who hold jobs are workers who do not want to be personally identified by their work in the fashion of the past. Industrial educators, as staunch

representatives of the work ethic of United States, need to understand these and other difficulties faced by many members of today's labor force. Tolerance of the chronically unemployed, discouraged workers, working poor, and other marginalized individuals should be learned. A definition of work that is inclusive of productive activity in the home and community can be taught so that work and personal identifiers, other than those emanating from a paid job, gain acceptance.

Society and the workplace have changed as have the requirements for functioning there. It is no longer sufficient for industrial educators to teach the literacy of technology as applied to work and society or the skills needed to do a job. Today's learners deserve to know the incentives for work that are urged by society and the choices that workers can make.

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