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On the Interrelationship between Development and Migration Processes

There are a number of factors that affect migration in Third World settings: wage and job opportunity differentials in the modern sector; employment opportunities in the informal and rural non-farm sectors; migration chains based upon family, extended family, and acquaintance relationships; circular and seasonal migration strategies; individual characteristics such as age and family size; and resource push factors related to origin town or village characteristics such as its economic well being, the pattern of resource distribution among social classes, local social norms, and the town/village's integration into the urban network (Connell, DasGupta, Laishley, and Lipton, 1976; Todaro, 1976; Findley, 1977). It is noteworthy that most aspects of the Brown-Moore (1970) and Mabogunje (1970) conceptual models are represented among these factors, and that these factors consistently emerge in research findings. However, in spite of the apparent agreement on a general level, at a more specific level there is a great deal of disagreement concerning the relative importance of each factor (Swindell, 1979). Some for example, would stress rural-urban wage differentials; others would stress chain aspects of rural to urban migration. Furthermore, empirical evidence is sufficiently ambiguous as to support either claim!

A way out of this dilemma, returning to the conceptual model of Mabogunje, is to consider Third World migrations in the broader context of an ongoing development process that affects the environment of social and economic conditions, government policies, infrastructure characteristics, and the level of technological progress. From this perspective, migration can be seen as a process that is affected by different factors at different stages of development, and ambiguities in research findings are explained by reference to the development milieu characterizing a given situation.

To further elaborate this theme, attention first turns to some illustrations of the interrelationship between development and migration processes. The second task is to sketch out a development paradigm, primarily drawing upon ideas associated with the *dual economy model*. Articulation of a rudimentary development paradigm of migration is the next task. This grows out of considering specific

factors of migration and how their importance might shift over the course of development. Finally, evidence supporting such a paradigm and some research considerations are put forth.

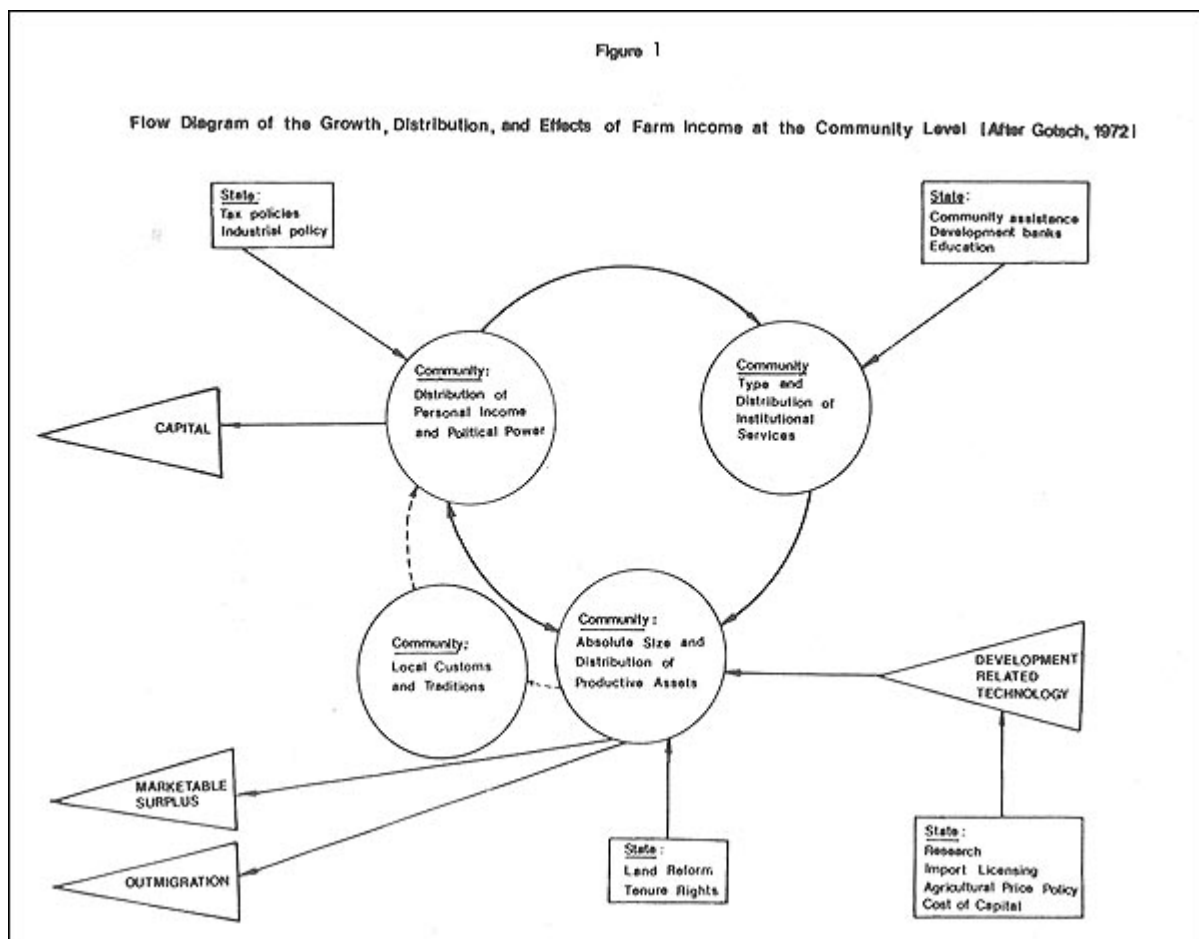
Illustrations

As an example of the interrelationship between migration and development processes over a narrow slice of time, consider Connell, et al.'s (1976, 197-198) description of the ideal typical high migration village:

“Population growth in the village has raised man/land ratios, increasing the power (political and market) enjoyed by landowners, and reducing that of landless laborers and deficit farmers. Growing integration into the urban market, by increasing both the need for cash and the drain townwards of investible surpluses, has enriched the money lenders, made rural reinvestment harder, and intensified both inequality and poverty. In such a village, push and pull operate together, but on different social classes. Deficit farmers and landless labourers – though not the very poorest who cannot afford the delays, costs, and risks of migration and who may well be bondslaves -- are pushed out (they would not be if inequality were smaller, because their income would be greater, and the resources of rich farmers to buy labour-replacing capital equipment smaller). The better-off farmers. . . encourage one or more sons, often in a 'chain', to be pulled out, to enjoy the higher urban-rural income differentials associated with education or to acquire the cash and/or knowledge needed to improve farm technology.”

Another illustration of the interrelationship between development processes and migration is provided by Gotsch (1972), as portrayed in Figure 1. This shows that the diffusion of technological innovation to a village is likely to result in out migration, but that its intensity is dependent upon the material or labor bias of the technological innovation; the distribution within the village of productive assets, political power, and institutional services; and social customs and traditions. Specifically, Gotsch shows that the tube well, a labor augmenting innovation, had dramatically different impacts on the income distribution and social organization, and hence migration, of two agriculturally similar areas in different institutional settings, one in Bangladesh and one in Pakistan.¹ The Bangladesh study area is characterized by smaller farms, a fairly equal distribution of land among the population, and grass roots organizations that operate as

cooperatives in agricultural matters, while the Pakistan study area is characterized by larger land holdings on the average, an unequal distribution of land among the population so that there are some very large land holdings and many small ones, and service organizations that feature a top down mode of operation and favor the larger land holdings. Accordingly, in the Bangladesh study area the tubewell's income impacts were more evenly distributed and the egalitarian nature of social organization was strengthened, whereas in the Pakistan study area social class disparities in terms of both income and power were aggravated, leading to extensive out migration. To be more specific about how the development process can affect out migration, consider Havens and Flinn's (1975) study of the diffusion of green revolution technology in a Colombian community. Sixty-five families were sampled, seventeen of which adopted and forty-eight not, resulting in an increase in the concentration of community wealth, as in the Pakistan community studied by Gotsch. Further, fourteen of the non adopters (approximately 30 percent) lost control of their land, and of these, eight immediately migrated to other areas and six became local day laborers, that is, ripe prospects for future migration (Guerrero, 1975)!



Generalizing from these and other examples, it appears that the development process usually leads to increased social and economic disparities among the population, and that the trickle of cityward migration then snowballs into a massive redistribution of people. However, evidence from the Developed World indicates that a state of equilibrium is eventually reached wherein rural to urban migration is once more a trickle, and migration is largely within the urban system.

A Development Schema

To broaden this perspective, consider the dual economy model of development that views Third World nations as consisting of a dynamic, growing, entrepreneurial, innovative modern sector and a stagnant, declining, conservative *traditional sector*. In terms of manifestation on the landscape, that is, how the dual economy would look on a map, the modern sector generally would be associated with urban agglomerations and the traditional sector with rural areas and small towns. This implicit spatial dimension of the dual economy model is expressed by the *core-periphery* or *heartland-hinterland* model, which pertains to an interregional setting, and by the *growth center model*, which pertains to the more local setting of an urban center and its rural! small town hinterland.²

In general, these models posit the gradual erosion of the traditional sector by expansion of the modern sector or, said another way, the conversion of the traditional sector by modernization impulses emanating from the modern sector. The transmission of these various impulses, or the dynamics of core-periphery and growth center-hinterland relationships, generally involve two types of mechanisms. *Backwash or polarization effects* direct growth impulses to the core or growth center and drain the periphery, thus exacerbating the disparity between them; *spread or trickle down effects* direct growth impulses to the periphery or hinterland, thus reducing regional disparities.

In the course of development there apparently is a change in the balance between backwash/polarization effects and spread/trickle down effects (Gaile, 1980; Richardson, 1976, 1979). This is illustrated by the generalizations derived from Pedersen's (1975,69-170) study of urban and regional development in South America over the past two centuries.

In a *traditional society* neither polarization nor trickle down effects would exist, and the landscape would be characterized by independent villages, no specialization

in economic activity, and an underdeveloped transport and communications network. In the *move towards industrialization* and later in *industrialization* itself, agglomeration economies become important so that backwash/polarization effects outweigh spread/trickle down, and the landscape comes to be characterized by a mature system of cities, local specialization in economic activity, transportation and communication networks that are highly interconnected but focused on core cities, and migration that is rural to urban or periphery to core in direction. Finally, there is a *post industrial or advanced economy phase* in which spread/trickle down effects initially outweigh and later balance with backwash/polarization effects, economic activity diffuses to locations in the periphery, periphery cities take on a more broadly significant role in the national economy, migration is reversed towards periphery and hinterland locations, and the core-periphery distinction breaks down.

Most Third World nations are in the *move towards industrialization* phase of this scheme, wherein polarization effects far outweigh trickle down effects, leading to extreme regional disparities and urbanization trends focussed on the largest cities. By contrast, in the *post industrial* nations of North America and Europe it appears that the heartland/hinterland distinction is rapidly breaking down, and that there has been a dramatic turnaround in migration flows towards decentralization and away from core regions (Rees, 1979; Norton and Rees, 1979; Hall and Hay, 1980; Vining and Kontuly, 1978; Isserman, 1980; Spence, 1980). Finally, there are some Third World nations, such as Venezuela (Chen and Picouet, 1979; Chen, 1978; Chaves, 1973) and Mexico, that fall between these two extremes, with significant growth currently taking place in secondary or intermediate size cities.

A Development Paradigm of Migration

As noted at the beginning of this paper, there is a great deal of disagreement concerning the importance of each of the several factors pertaining to migration in Third World settings.³ The hypothesis advanced here is that this disagreement can be resolved by reference to the development process, or more specifically, that there is a shift in the relative role of each of the migration factors as development progresses. Thus, ambiguities in the findings of previous research are seen to have arisen primarily because of differences in the level of development among the locales studied.

The development scheme sketched above is to be used as a mechanism for illustrating the plausibility of this hypothesis. That the scheme embodies the precepts of dual economy thinking on development is a matter of convenience rather than one of advocacy. Specifically, this development scheme was chosen because it is the most widely known and understood, and because it is articulated in a manner that facilitates the merging of development and migration models for illustrative purposes. It should be noted, however, that there are other widely accepted model of development. Particularly germane are those of the dependency (Frank, 1969,1979; Gonzales-Cassanova, 1966; Sunkel, 1969; Oxaal, Barnett, and Booth, 1975) and Marxian (Santos, 1979; Roxborough, 1979; Laclau, 1977) schools, which may, in general terms, be seen to take a political economy perspective.

Lest the argument of this section founder on the reader's conviction as to whether the dual economy, dependency, or Marxian model is more appropriate, it is important to recognize that all three are concerned with the structure of society and how that structure changes with development. In some instances this is articulated in terms of individual attitudes, such as those pertaining to modernity (Armer and Isaac, 1978; Rogers, 1969); in others, the more aggregate social and economic characteristics or the material conditions of society are of concern (Friedmann, 1972, 1973, 1975; Leys, 1974; Brett, 1973). Nevertheless, the point stands that, whatever one's persuasion with regard to a particular model of development or which variables are important in the process, in order to understand migration we must relate it to the structure of the society in which it occurs.

To further elaborate this position, the ensuing discussion employs the development scheme sketched above to address how migration processes change over the course of development; that is, both the directionality of migration and the relative role of factors which motivate and guide the decision. This interrelationship is examined in terms of four dimensions: 1) the locus, range, and mix of job opportunities; 2) the degree of resource push versus modern sector pull; 3) social system characteristics; and 4) the proliferation of transportation and communication infrastructures.

In the traditional society, the *locus, range, and mix of job opportunities* would be relatively undifferentiated across the landscape and would not, therefore, induce a significant amount of permanent migration. Over time, however, the labor

market artifacts of a more contemporary society would be established, first in the larger cities and later in intermediate and smaller sized cities. Historically, this has begun by the imposition of a modern sector, followed by the gradual transformation and growth of the informal and rural non-farm/small scale enterprise sectors. Thus, the aggregate number and range of job opportunities increases as development progresses. However, there also is a change in the ratio of formal to informal sector employment. Specifically, the relevance of modern sector job opportunities and wage differentials should increase over time, and the role of the informal sector should decrease. Similarly, the role of the rural non-farm/small scale enterprise sector should increase as it meshes with, and perhaps surpasses in importance, the urban sectors of the economy.⁴ In terms of present actualities, however, the urban systems of Third World countries remain primate or highly focal in nature, the informal sector still dominates, the integration of urban and rural/small town economies is fragmentary, and migration patterns are oriented towards the largest cities (Gilmour, 1980; Caldwell, 1969; Renaud, 1979). At the same time, in those countries where modern sector activities have noticeably diffused to intermediate size cities, as in Mexico or Venezuela (Chaves, 1973; Chen, 1978), contemporary migration patterns exhibit a parallel decentralization (Betancourt, 1978; Chen and Picouet, 1979).

With regard to resource push, the initial rural situation is one of subsistence agriculture with a balance between population and available resources. One of the early artifacts of modernization, however, has been the diffusion of health related innovations, leading to a fall in death rates. As a result, more children survive to adulthood, and population pressure on the land and on existing systems of agriculture is considerably increased.⁵ One response to this situation has been migration or an increase in circulation, but another has been to alter the agricultural production system through innovation, a response heavily promoted by both domestic and foreign forces external to the community. As was illustrated above, however, innovation diffusion often leads to an exacerbation of social and economic disparity within the community and/or to an increase in the superfluity of labor, both root causes of migration. As evidence of the importance of this force, Connell, DasGupta, Laishley, and Lipton (1976, 200), after an extensive review of research on migration from rural areas, conclude:

“That intra-rural inequality is at once the main cause, and a serious consequence, of rural emigration is the main hypothesis we wish to present..”

Partly in response to this situation, there has been much exhortation towards diffusing appropriate, labor biased technology to rural areas, redistributing land, and other social structure directed measures. Presently, however, population pressure in rural areas remains high, and resource push may be expected to remain a significant factor in rural to urban migration until development brings a better balance between core and periphery areas (Connell, DasGupta, Laishley, and Lipton, 1976; Rhoda, 1979).

Social system characteristics, as they affect migration, and *the proliferation of transportation and communications infrastructures* are interrelated. Initially, when transportation and communication infrastructures are sparse, interpersonal contacts among family and acquaintances are almost the only source of migrant information, and assimilation at the destination is highly dependent upon earlier migrants to the city. This situation leads to distinct *chains* of migration. As transportation and communication infrastructures proliferate, a number of changes occur. One obvious change is that information from other than interpersonal sources is more readily available. Second, because the cost of moving is lower, circulation strategies are easier; this enables the migrant to acclimate his/her self to the city in stages and to be less reliant upon the migration chain for support at the destination. Third, the contact between *modern* and *traditional* segments of society, which occurs concomitantly with the proliferation of transportation and communications infrastructures, alters traditional value systems and, particularly, many of the social norms that pertain to migration. Finally, the proliferation of transportation and communication infrastructures also provides a nexus within which the spread of economic activity from the larger cities to those of secondary importance is more feasible, both from an economic and a social perspective. This in turn alters the locus, range, and mix of job opportunities and related migration patterns.⁶

The idea of a development related paradigm of migration is not new, but its articulation has been primarily in terms of migration patterns. Connell, DasGupta, Laishley, and Lipton (1976, 201, words in parentheses added), for example, conclude that

“Patterns of migration from a rural community may well change in 'stages', following the integration (into the national urban system) and development of that community. Circular migration usually comes early...succeeded by directed migration, but still relatively little differentiated by socio-economic

group...Subsequent integration often differentiates migrant streams...both by status and by age, sex, and destination...The process also often involves a shift from personal to household migration.”

Similarly, Zelinsky (1971) has put forth his *hypothesis of the mobility transition*. This holds that mobility in general increases with development and posits five phases, each with different expected patterns and rates of internal migration (Figure 2) – the Premodern Traditional Society, The Early Transitional Society, The Late Transitional Society, The Advanced Society, and A Future Superadvanced Society.

Figure 2

Zelinsky's Hypothesis of the Mobility Transition

Phases of the Mobility Transition

PHASE I—The Traditional Society

- (1) Little genuine residential migration and only such limited circulation as is sanctioned by customary practice in land utilization, social visits, commerce, warfare, or religious observances

PHASE II—The Early Transitional Society

- (1) Massive movement from countryside to cities, old and new
- (2) Significant movement of rural folk to colonization frontiers, if land suitable for pioneering is available within country
- (3) Major outflows of emigrants to available and attractive foreign destinations
- (4) Under certain circumstances, a small, but significant, immigration of skilled workers, technicians, and professionals from more advanced parts of the world
- (5) Significant growth in various kinds of circulation

PHASE III—The Late Transitional Society

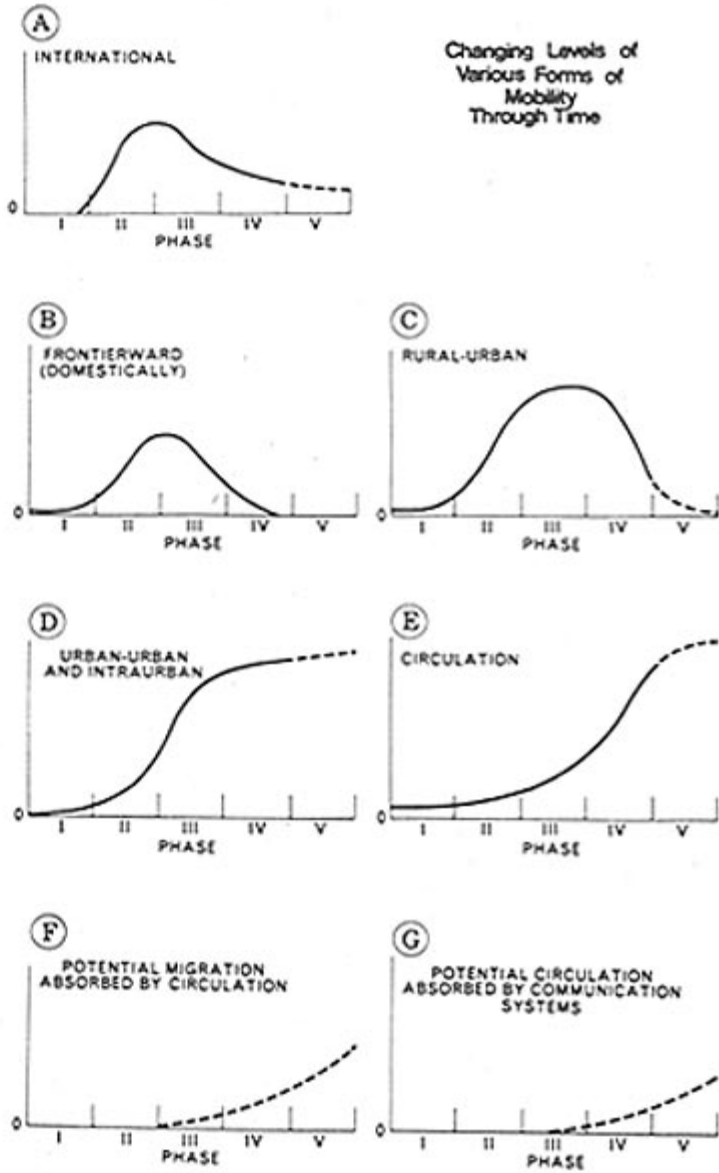
- (1) Slackening, but still major, movement from countryside to city
- (2) Lessening flow of migrants to colonization frontiers
- (3) Emigration on the decline or may have ceased altogether
- (4) Further increases in circulation, with growth in structural complexity

PHASE IV—The Advanced Society

- (1) Residential mobility has leveled off and oscillates at a high level
- (2) Movement from countryside to city continues but is further reduced in absolute and relative terms
- (3) Vigorous movement of migrants from city to city and within individual urban agglomerations
- (4) If a settlement frontier has persisted, it is now stagnant or actually retreating
- (5) Significant net immigration of unskilled and semiskilled workers from relatively underdeveloped lands
- (6) There may be a significant international migration or circulation of skilled and professional persons, but direction and volume of flow depend on specific conditions
- (7) Vigorous accelerating circulation, particularly the economic and pleasure-oriented, but other varieties as well

PHASE V—A Future Superadvanced Society

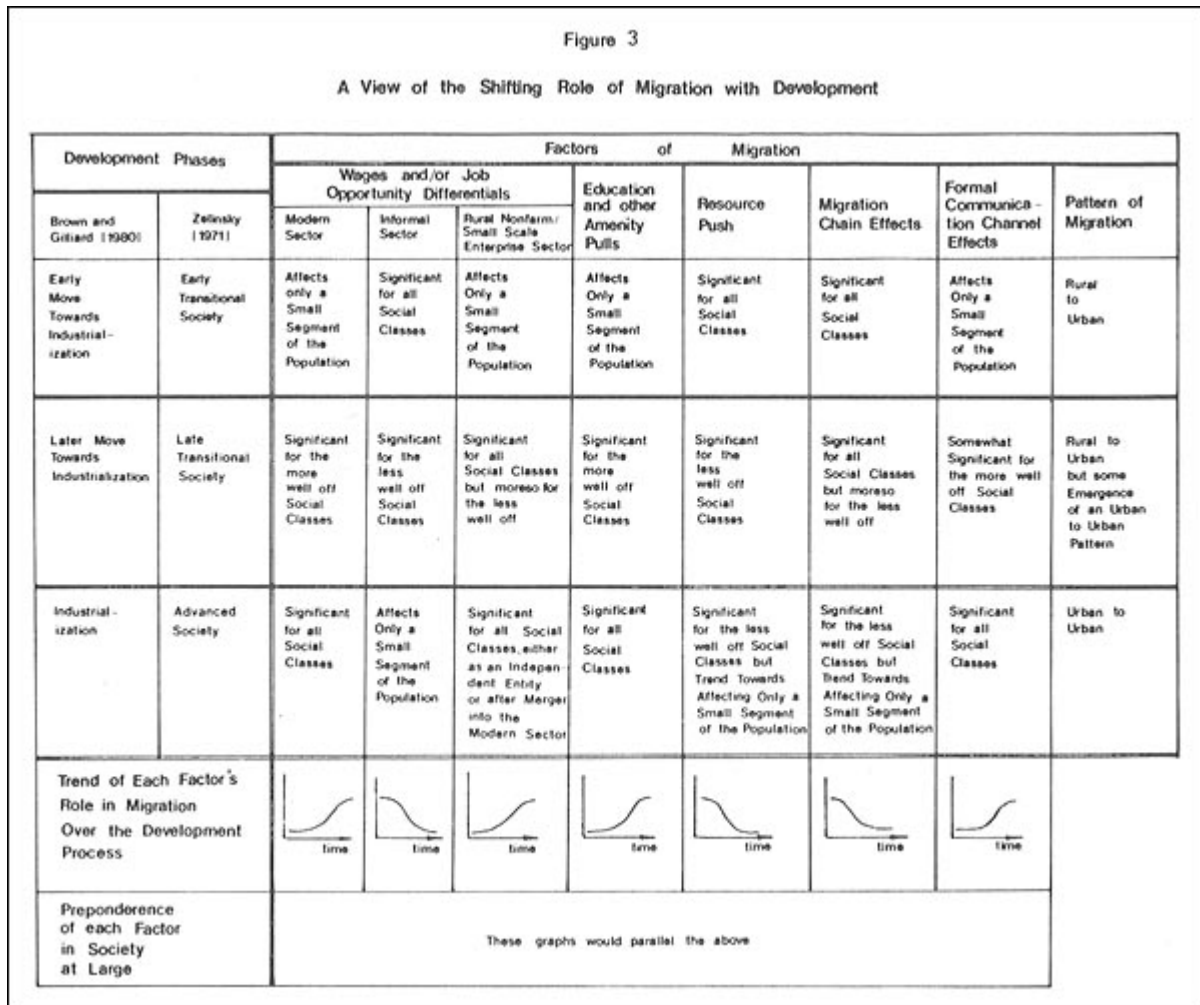
- (1) There may be a decline in level of residential migration and a deceleration in some forms of circulation as better communication and delivery systems are instituted
- (2) Nearly all residential migration may be of the interurban and intrurban variety
- (3) Some further immigration of relatively unskilled labor from less developed areas is possible
- (4) Further acceleration in some current forms of circulation and perhaps the inception of new forms
- (5) Strict political control of internal as well as international movements may be imposed



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In terms of process, the above synopsis of the interrelationships between

development and migration together with the material in the earlier sections of this paper indicate the following, which is summarized in Figure 3:



1) Early migrations, occurring in the initial phases of the move towards industrialization or Zelinsky's early transitional society, will be highly chain in nature, resource pushed, and oriented towards activities in the informal labor market.

2) As development proceeds, entering the later phases of the move towards industrialization or Zelinsky's late transitional society, migration among the more well off social classes will shift towards the pull of educational and modern sector employment opportunities, but will retain a significant chain dimension owing to transportation and communication systems that are somewhat rudimentary. At the same time, migration among the less well off social classes will maintain its resource push motivation, orientation towards the informal labor market, and chain characteristics, but a pull from the rural nonfarm/small

scale enterprise sector also will become significant.

3) Finally, as development reaches a relatively advanced level, entering industrialization or Zelinsky's advanced society, migration of all social classes will be oriented towards a formal, modern sector, and small scale enterprise activities, and formal communication channels will take on a primary role as sources of information, thus reducing and in many instances eliminating the chain dimension. Further, the dominant pattern of migration will come to be city to city, rather than rural to urban.

Support for a Development Paradigm of Migration

As noted above, a fundamental theme of this discussion is that migration in Third World settings must be related to the structure of the society in which it occurs. Interestingly, this is precisely what has been attempted in studies from a political economy perspective. While these have not resulted in a comprehensive model interrelating migration and development processes, they do provide several persuasive examples. Swindell's (1979, 248-254) review of this research as it pertains to Sub-Saharan Africa, for example, notes:

“Transformation of the domestic economy (by the colonial presence) led to chains of proletarianization and peasantization of the indigenous population which in many cases resulted in the creation of landless rural dwellers who could only meet the cash demands made upon them by the colonial authorities through labor migration...” (page 248, words in parentheses added)

Likewise, Wood (1980) provides several examples from Latin America wherein the introduction of mining of agricultural production for world markets led to the replacement of traditional support systems by a wage structure that often was inadequate for the basic needs of the household and, accordingly, contributed to household coping strategies that included migration and circulation. Gotch's (1972) study of the relationship between village social structure and the effects of innovation, discussed above, also is relevant.

With regard to the paradigm outlined in this paper, its expectations concerning migration patterns and processes at different stages of development are borne out by the migration experiences of nations such as the United States as compared to those of the Third World. As noted in this paper, for example, present day migration patterns of the Third World generally are periphery to core

and rural to urban in orientation, whereas those of the Developed World are away from core regions, leading to a decentralization of the population. Further, this paper indicates considerable agreement that migration in the Third World is chain in nature and reliant upon employment opportunities in the informal sector, whereas it appears that modern sector wage rate or job opportunity differentials and information from formal communication channels play a dominant role in Developed World migrations. Not so long ago, however, migration in the United States was patterned like that of the present day Third World, that is periphery to core in orientation, and a major guiding force was that of the migration chain (Brown, Schwarzweller, and Mangalam, 1963)!

More specific to the applicability of a development paradigm of migration to the Third World are the observations of Rhoda (1979) and Findley (1977) on the effects of various development policies. They find that land reform, frontier oriented resettlement schemes, and fertility control reduce rural to urban migration. In terms of the development paradigm of migration, this would be explained in that these policies are ones that reduce resource push. On the other hand, resource push is increased, as is rural to urban migration, by the diffusion of green revolution technologies, agricultural mechanization, and agricultural credit and extension programs, which generally favor the more elite social classes and increase social and economic disparities in rural areas. The effects of irrigation programs are mixed, sometimes inducing and at other times retarding rural to urban migration depending upon whether their benefits are distributed in a discriminatory or egalitarian manner. The promotion of rural non farm activities has tended to slow rural to urban migration initially, but as the workers gain experience and skills, they often migrate to larger towns as a second step. As development progresses and more and better employment opportunities are available in intermediate and smaller towns, however, the large town step should be eliminated. Education at the rural level also tends to induce rural to urban migration in that it gives the youth modern urban skills, attitudes and values. However, Rhoda and Findley found that other social services have no clear effect on rural to urban migration.

Some Research Considerations

The observations above concerning support for a development paradigm of migration are encouraging, but more rigorous testing is needed. In doing this, it is critical to control for or take account of development level since not doing this

in earlier studies seems to be the cause of the ambiguities in research findings that emerge from Findley (1977), Todaro (1976), Connell, DasGupta, Laishley, and Lipton (1976), and other reviews. Said another way, it appears that the samples from which research findings are drawn have represented different stages of development, but the significance of that generally has not been recognized.

Accordingly, one approach to testing would be cross national analysis of census data for countries at different stages of developments as in Fivebaugh (1979), but giving explicit attention to the development variable. Another, and probably more relevant, test would be a cross sectional analysis of regions, towns, or villages within the same country, each representing different stages in the development process. This could be done with either survey or census data. (or both), and in the latter instance the introduction of a longitudinal dimension would be possible for some countries.

In implementing an analytical strategy for testing a development paradigm of migration, a critical concern would be the measurement of development. Although the concept has been widely debated, there seems to be general agreement that development can be measured either in terms of overall well being, such as GNP, or in terms of the distribution of well being, such as a Gini coefficient reflecting income disparities within an area (Todaro, 1977; Morawetz, 1977). In either approach, it probably would be better to use an index composed of many variables, rather than just a single variable as in Berry's (1960) well-known factor analytic study of national development. However, there are many options in the choice of variables, as evidenced by Chenery and Syrquin's (1975) multivariate approach to examining development primarily in terms of overall well being, and Yapa's (1980) use of variables comprising the *physical quality of life index*, a measurement pertaining to the distribution of basic needs. Incidentally, the studies cited in this paragraph primarily focus upon national indices. However, the kinds of approaches they advocate also could be applied to smaller geographical units such as the region, town, or village and could be implemented with survey as well as census data. In this vein, an interesting index designed for survey data is that of Gowen (1978), which pertains to participation in market activities as a measure of modernization.

Some will see this multifaceted (and sometimes ambiguous) view of what is meant by development as a major obstacle to research. It is our opinion,

however, that using the variety of measures available, and interpreting the findings in light of the different aspects of development highlighted by each, ought to provide a great deal of insight into migration processes. Thus, we see the task of designing a research strategy for testing a development paradigm of migration as a challenge, and as an important research agenda for the future.

Notes

1. As described by Gotsch (1972: 332) the tubewell is a water producing technology consisting, in its simplest form, of a 6-8 inch tubular shaft sunk to a depth of 50-150 feet to which a small motor driven pump is attached.
2. For recent synopses of the dual economy model and its spatial counterparts, the core-periphery and growth center models, see Miller (1979) and Richardson (1978).
3. To recap the factors pertaining to migration in Third World settings, they include wage and job opportunity differentials in the modern sector; employment opportunities in the informal and rural non-farm/small scale enterprise sectors; migration chains based upon family, extended family, and acquaintance relationships; circular and seasonal migration strategies; individual characteristics such as age and family size; and resource push characteristics related to origin town or village characteristics such as its economic well being, the pattern of resource distribution among social classes, local social norms, and the town/village's integration into the urban network.
4. The future role of the rural non-farm/small scale enterprise sector has come under scrutiny from two perspectives. One holds that its relative importance will decrease as development proceeds. This might occur either because the rural non-farm/small scale enterprise sector is absorbed and transformed into the modern sector, or because it is replaced as individual demand schedules come to disfavor traditional goods (Hymer and Resnick, 1969). Alternatively, one may hold that demand for rural non-farm/small scale enterprise goods will increase, thus leading to a more important role for that sector (Gibb, 1974; Liedholm and Chuta, 1976). This seems reasonable in that the rural non-farm/small scale enterprise sector's reliance upon labor intensive manufacturing embodies the major competitive advantage of Third World nations in international trade.

5. Although increased population pressure is the most common explanation for resource push, the political economy perspective holds that the conditions of society, rather than the conditions of nature, are responsible for forcing people off the land and into migration streams. An often cited example of such conditions is the head tax, imposed in some African colonial settings (Swindell, 1979).

6. Interrelationships such as those discussed in this paragraph are partially addressed by Taaffe, Morrill, and Gould (1963) in their "Ideal Typical Sequence of Transportation Development".

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