MIGRATION AS A HOUSEHOLD INNOVATION

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Standard migration models focus on one type of movement, permanent rural-urban migration, yet empirical studies of migrants in developing countries reveal a rich complexity of migrant types. This paper uses the concept of innovative behavior to develop a model of the migration process which better accounts for this wide variation in migrant types. The focus is on longitudinal changes in migration patterns from specific communities. The first migrants will be innovative risk takers who adopt the migration "innovation" without information from previous migrants. Later migrants will be more risk averse and will migrate only if previous migrants report favorably on their experiences. For the later migrants, information about and from family or friends governs migration. Thus, later migrants respond to different conditions than the innovators. A specific destination may be attractive to the more risk averse migrants, but unattractive to innovators, or vice versa. The paper explores the various migration patterns likely to emerge with changes in the messages from migrants to the home community.

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Introduction:

Observers of migration patterns in developing countries agree that we can expect more, not less, migration. The problem facing migration analysts is not so much predicting whether migration will occur as it is where migrants will go. Standard migration models predict that migrants go where there are jobs, yet empirical evidence indicates that employment opportunities alone do not govern destination choice. (See, for example, Rempel, forthcoming; Byerlee et al., 1977; Nelson, 1978). Models predicting destination choice must include non-economic variables.

Among the important variables such a model might include are the individual's knowledge about a place and his willingness to risk migration given incomplete knowledge. The concept of an innovation touches on both these aspects of destination choice. The purpose of this paper is to show how the concept of innovativeness contributes to our understanding of choice of destination.

The concept of migrants as innovators is not new to migration research. In his research, Wilkie (1971) showed that middle class migrants from an Argentine village were "innovators" who were willing to take risks by going to lesser known, more distant cities. Butterworth (1977) also characterizes those who move out of the Mexican village of Tilantongo as "risk-takers" who have tried non-traditional customs. In fact, the theory of declining selectivity is based on the premise that initially migration is unusual and involves a fair amount of risk.

But innovation theory has yet to be applied rigorously to migration behavior. When it has been applied, it has been used more as an heuristic

device for describing a complementary set of migrant characteristics. There has been no attempt to apply the concept in a behavioral or procedural sense that would facilitate our understanding of the dynamics of the complex, migration decision process.

This paper develops a model of the migration process that builds on the concept that migration itself may be viewed as an innovation. Application of this concept enables prediction not only of the types of persons likely to migrate first from any village, but also of how these characteristics will change as adoption of the "product," migration, becomes less innovative. It will also be shown how new origins are drawn into the migration process and how migrant destinations vary over time or with degree of innovativeness.

The first section of the paper presents a definition of innovative behavior and applies this to migration. The second section of the paper presents a set of propositions stemming from the model developed in the preceding section. The propositions are supported by evidence from studies throughout the developing world. The last section discusses certain considerations of the innovations model of migration.

Application of innovation theory to migration behavior:

A major problem with many studies of innovators and innovations has been use of tautological definitions: if the respondent was one of the first to adopt the behavior, he was by definition an innovator. This definition tells us nothing about why the individual adopted it first; nor can we discern whether his choice differs from non-innovators in timing,

quality or both. The definition developed by Midgely and Dowling (1978: 234) avoids the tautology:

> "Innovators of any one innovation are those members of society prepared to adopt this new product early in its diffusion and therefore without the personal or social support gained from discussions with prior users."

According to this definition innovators are not innovators simply because they are the first to adopt a behavior; they are innovators because they are willing to make a decision based on secondary or impersonal sources, such as the radio, newspaper, films, or strangers passing through the town.

Of course, the innovation of migration is likely to be adopted, even by innovators, only if the innovation is deemed appropriate or desirable. In the case of migration, this would imply structural conditions of inadequate incomes or constrained economic opportunities necessitating, among other things, migration in order to earn a sufficient income (Portes, 1978). Further, assume that the constraints specifically apply to the potential migrant; from any given village migration may be appropriate for one type of person, while it is inappropriate for others.

Under what conditions will the migration innovation spread to others in the same village? As for the innovators, the economic pre-conditions are necessary conditions, but they may not be sufficient. In addition, the innovation will spread to others if the following conditions hold (Midgely and Dowling, 1978):

(1) Previous migrants send back favorable reactions to migration.
(2) The communications network can transmit this feedback.
(3) Residents are receptive to the messages from migrants.
(4) Residents need and can afford to adopt the innovation.

If the migrants are perceived to have fared worse than if they had not gone, others will not be interested in following. Likewise, a long period of unemployment or the cost of a train ticket may make migration unaffordable to many who would otherwise go.

Which persons are likely to be the first migrants or innovators? For several reasons they are likely to be the more educated youth of the village. The innovators may rely entirely on written information, for which literacy is essential. In addition, education develops other attitudes which increase the individual's chances of seeking out opportunities for a "better life" (Kennedy et al, 1974). The information sources used by these migrants also are more likely to provide information about opportunities most relevant to the educated, namely information about jobs requiring literacy or educational certificates about wage levels in the formal sector, and so on. In most developing countries, educated persons have a higher probability of substantial income gains from rural-urban migration. Finally, the educated have a greater spatial awareness (Brown, Malecki, and Philliber, 1977), which means they will know more about other places and therefore need less information about specific opportunities to trigger a migration decision.

The first persons to adopt the migration innovation are also likely to be less risk averse than others. They are less risk averse because the information upon which the decision is based is necessarily limited, and the more risk averse require more information in order to ascertain that the payoffs to migration exceed their minimums (Schnaiberg and Reed, 1974). Who are the persons most likely to be risk neutral? Simply stated, they are the more wealthy. The wealthy can tolerate a wider dispersion of potential migration payoffs than can the poor. For the more affluent this wider dispersion is desirable, in that there is more chance for higher-than-average gains (David, 1974:28).

Although the "innovators" are likely to be educated and more affluent, i.e., the more selective of the village, these qualities are not required for innovation. The most essential condition is minimal risk aversion and willingness to adopt the innovation without information from personal friends or family. If the cost of migration

is minimal because the destination is nearby or on a well-travelled busline and if the payoffs appear to be large, the poor will go because they have little to lose and much to gain. In this instance, the adoption of migration very much depends on the destination involved, a subject to which we now turn.

To which places are early migrants likely to go? According to innovation theory, the earliest migrants will choose the places discussed most frequently and/or favorably by secondary sources. Collier and Green (1978) show that at first persons in rural villages know about opportunities only in the largest cities, which are also the locus of most opportunities. In addition, because of the number of opportunities, the larger cities may also offer a greater variation in wage levels, and persons seeking a high wage will be attracted by this wage dispersion. The migrants seek jobs which have a relatively long expected duration (Miron, 1978); again, these may be perceived to be more likely in the careers available in the largest cities. Therefore, the first migrants are likely to go to the largest cities.

Which types of areas will send innovator migrants before other areas? Because innovator migration depends on secondary source information, places that are better integrated into the national communication or transportation network will be the first to send migrants. At first this will be provincial cities or rural areas near the larger cities, but other rural areas will be drawn into the process as they are integrated into the network (Skeldon, 1977). Areas which have a higher educational attainment or more access to schooling will send more innovator migrants largely because they will have more educated persons and through the schools more contact with other places (Wilkie, 1971). Because the less risk averse are also likely to be more affluent, prosperous agricultural or cash crops zones or areas with a relatively diver-

sified economy are more likely to send innovator migrants (Brunn and Thomas, 1971; Kimmerling, 1971; Cardona and Simmons, 1975).

After the first migrants have gone to a specific destination, if the four conditions for innovation diffusion are present, others will adopt the same migration pattern. Though these subsequent migrants in all probability will be very similar to the earlier "innovative migrants", with more feedback from prior migrants, the nature of the migration decision will change. The crucial difference is that the later migrants can and do benefit from information from primary sources, family and friends.

Later migrants have more and higher "quality" information, namely from reliable, personal sources. Friends, relatives, co-ethnics, or fellow villagers who have moved to the city, who return for visits, or who return to resettle in the village become the principal sources of information about city life and opportunities.

The nature and quantity of information available to potential migrants produces a change in migrant characteristics. If sufficiently positive, the additional information enables migration among the more risk averse. In turn this implies that later migrants on average will be older, less educated and poorer than their predecessors in the same migrant stream. Relatively risk averse but unemployed persons will also be more likely to join the stream, as their migration costs involve no job opportunity costs (Bartel, 1979; DaVanzo, 1978).

In short, later "adopted" migrants in a specific migration stream may be less selective than their innovative predecessors. But this does not mean that the more selective no longer go to that destination if it is still most suitable for them. Rather, they will be joined by the less selective adoptor migrants.

Before migration to the city has become widely adopted the very poorest of the rural poor will not go to the cities unless they live within close proximity to the city (Whiteford and Adams, 1975; Connell et al., 1976) Their illiteracy and poverty restrict their options. Other households can combine primary and secondary source information to weigh alternatives and

select a destination, while the poor may rely only on primary sources. Even if poor households have already left the village for the town, the cost of visits inhibits their sending messages back to rural kin; therefore, the poor have more limited personal sources of information (Plotnicov, 1970). Also, the poor cannot finance a long-distance move to a city. With their lower levels of education and skills, obtaining work may be much less likely, and without kin who can afford to feed them while they look for work, the poorest simply cannot afford to take the substantial risk of a long period of job-searching. Finally, and perhaps most important, the poorest do not have the skills or education pre-requisites for "making a go of it" in the city. Their traditional response has been and continues to be rural-rural migration, both temporary and permanent. But, with a build up of kin in the city and/or further deterioration of rural opportunities, the less selective will begin moving to the largest city.

For later migrants, the migration process is heavily influenced by interpersonal communications. And, as Marshall McLuhan would have it, "the medium is the message" (1967). Diffusion of migration is determined not just by the fact that the persons in rural areas have more awareness of urban economic opportunities as seen through the eyes of visitors or returned migrants. They also have a new way of perceiving migration itself.

Rather than viewing the migration as competition for jobs in a somewhat alien urban world, migration emerges as the means by which families can tap into other familial or personal resources. Hence, those who move are not just the selective migrants who hope to land one of the scarce, urban salaried positions. Migrants increasingly are those who have city contacts or family. A wealth of contacts is interpreted as offering greater options for the migrant household. Thus, the presence of kin becomes the variable which determines subsequent migration diffusion.

The declining selectivity of the migrants reinforces the likelihood that they will be more sensitive to the "knowns" of urban contacts or family and moving costs at the same time that they are less responsive to the more uncertain information pertaining to income or employment opportunities (Kau and Sirmans, 1977). Because the less selective migrants cannot afford to take the risks experienced by the innovators, they will rely more on the certain information, for example, of a bus leaving for that destination once a week, the commitment by a fellow villager to provide temporary shelter upon arrival, or a family's interest in establishing one of their members as the urban marketing agent. They will continue to be sensitive to earnings potentials but to a much lesser extent than the more selective, innovator migrants.

The less selective rural-urban migrants differ in their outlook and strategies from the "innovators." By virtue of their older age and little education, the less selective tend to have shorter time horizons. They are much less likely to move to the city with the intention of staying permanently (Nelson, 1978). Instead of the educated youths' goal of eventually obtaining a salaried, "protected" sector job, the goals of the less selective migrant households focus on more immediate income-earning possibilities such as street vending, or construction work. Therefore, their migration decisions may be more responsive to the immediate availability of work through a "job program," an opening in a fellow villager's enterprise, or to the word sent back that there is a family who need a domestic servant.

Because they may not view their urban residence as permanent, the less innovative migrants need to retain their rural options. Particularly in Africa, the instability of urban tenure results in dual households with the head living in town sending back remittances, while the wife and children

remain on the family's small rural plot. Children may be sent to town for schooling, or the father may return to help with heavy seasonal workloads (Ferraro, 1974). If the migrant in the urban area loses his job, he can return to the rural area before trying again elsewhere. Because family enterprises appear to offer the most flexible employment situation (Mattesich and Hill, 1976) the emergence and prevalence of the "dual household" strategy complements migrants' family-based migration strategy.

For later migrants, the migration process is determined by family and friends. Family members may jointly decide who will go, where, when and for how long. In fact, migration may be viewed as extending the household resources over space, as a households innovation. First, sending some members of the household to town to work allows the household to earn capital not otherwise available in the rural area (Stark, 1978). Seasonal target workers have long been observed among rural-urban and rural-rural migrant streams. In the present example, however, the migration is more permanent, with regular remittances the vehicle for returning the capital. Second, migration of one or some of the household members can be used to reduce the risk of no earnings by spreading investments (i.e., household members) over two or more locations, preferably with fairly dissimilar earnings constraints (Smith, 1978). Third, extension of the household over space gives the family more flexibility. If the city members prosper, the country members can join them, and if not, the reverse.

The dual household will continue to be adaptive until job turnover drops or the family has a permanent investment in maintaining its urban enterprise. When urban migrants can no longer afford to quit their jobs to return for seasonal planting and harvesting, the family moves into town, and the rural farm is rented out or sold to other family members (Rempel, forthcoming; Standing and Sukedo, 1977).

Where the family seeks to maintain two or more spatially distinct units, larger families have a clear advantage. They can manage both rural and city enterprises (Arizpe, 1978; Deere, 1978). Further, the larger family may have a more extensive network of relatives and friends, which is particularly advantageous to city survival and economic mobility (Lomnitz, 1977).

Because the familial and social relations are considered vital to the migrants' success in the city, migrants take great pains to fulfill their kin obligations. Typically, older siblings living in town are expected to shelter, sustain, and educate younger siblings. In the Latin American region urban migrants sponsor the annual fiesta days in their home villages, and in Africa migrants stress the importance of visiting in order to fulfill ritual or clan obligations.

The job search process of later "adoptor" migrants will also revolve around kin. Hendrix (1979) has shown that working class migrants from the Ozarks use kin both to obtain information about potential destinations and to locate jobs after moving. The later migrants may rely entirely on finding a niche in or through the family network, as, for example, among migrants from one village near Mexico City (Lomnitz, 1977).

In addition, the later migrants may undertake a job search prior to moving. This search utilizes their contacts with previous migrants or family in potential destinations. Prior job search enables the most risk averse to move when they otherwise could not afford to be without a job (Miron, 1978).

Given these changes in the nature of the migration process, what forces will accelerate or decelerate the spread of the migration innovation? More favorable feedback and more urban contacts among prior migrants; improved communications network with a higher frequency of messages; more education among the poor and/or lower rural incomes with a resultant increased receptivity to the attraction of urban wage levels (Collier, 1978); and lower mi-

gration costs through better transport or assistance from kin will all accelerate the process.

Because of the tendency to ignore negative messages and concentrate only on positive information (Jones and Zannaras, 1976), larger amounts of negative ("unsuccessful") messages are necessary to decelerate existing migrant flows. The later "adoptors" rely on certain information of distance and presence of kin (Kau and Sirmans, 1977). Negative messages about housing or jobs from several kin or friends is not likely to receive the same weight. Further, because most migrants claim to have improved their lives, large doses of bad news are unlikely (Findley, 1977). Despite deterioration in some reported conditions, the less selective, "adoptor" migrants may continue to choose the big city.

When conditions are perceived as being very bad in the big city, the less selective migrants have two options. First, if there are nearby towns or small cities in which employment opportunities develop, the less selective migrants can retain their rural households and commute to the nearby town for work (Southall, 1976; Hugo, 1977; Simmons, 1976). Second, they can join the ranks of the rural-rural migrants. Recent increases in rural-rural migration in several Latin American areas may demonstrate this effect (Connell et al., 1976).

Up until this point, we have assumed that later migrants follow in previous migrants' footsteps to the same destinations. In many cases this may be true: virtually all migrants from one village will have gone to only one destination. But this may be more the exception than the rule. How, then are new destinations introduced to a village?

Because each migrant destination represents a separate innovation, then each time a migrant selects a new destination, a new cycle of feedback, adoption, and innovation spread is initiated. Selection of a new destination

depends on changes in the content of information about places portrayed by secondary sources. As cropping patterns or production techniques change, new destinations will be introduced and others phased out (Adepoju, 1979). If a less favorable or unknown city or region is described as having more or better jobs than the previously favored destination, innovators may set off for the new place.

At the same time, the characteristics of the innovators going to the new destination may differ from those to previous destinations. They may be more or less selective than previous innovators. For example, accounts of openings on plantations may attract the less selective villagers who would otherwise not move. Initiating migration streams, especially rural-rural flows, is not the sole prerogative of the more educated.

Thus, with the passage of time and changing circumstances migration destinations from specific villages become more diversified. The question for migrants will become "where to," not "whether or not." This dispersion of migrants among several destinations does not always happen, but given variable migrant fortunes and a spatially unequal pace of development, dispersion is more likely than concentration.

Let us call the stage where most migrants from a village are concentrated in one or two migration streams the "concentration phase" of migration. When several migration streams emanate from one village this is "dispersion phase." These distinctions derive from the village's unique migration patterns.

That one village is in a concentration phase does not mean that all other villages are in the same phase. Naturally, if there is substantial intervillage social interaction it is likely that their migration patterns will be similar, but similarity is not required. This allowance for within region and within nation variability distinguishes the innovations model of longitudinal migration changes from previous models by Zelinsky (1971) or Skeldon

(1977), in which national migration patterns are assumed to be fairly homogeneous, passing from stage to stage as from one urbanization level to the next.

The beginning of the migration dispersal phase is signaled by increased rural-small city and rural-medium size city migration by selective, middle class migrants. The most highly educated will continue to go to the biggest cities throughout this as other phases: For their very long-range, high mobility aspirations only the centers of government and industry suffice (Nelson, 1978). But as households in villages receive more reports of migrant success in other destinations, the selectivity of migration to these alternative destinations will decline with the shift to family-based migration strategies witnessed in the previous concentration phase. Unless these alternative destinations are close to regions sending out migrants, however, the least selective rural-urban migrants will probably continue going to the large, metropolitan area because that area will continue to hold the most promise by virtue of its size and related opportunities. Hence, we expect to witness a more polarized distribution of very selective and much less selective rural-urban migrants to the biggest city.

When there are more destinations from which to choose, if economic opportunities do not clearly distinguish potential destinations, other factors will weigh in the migration decision. Given two comparable economic locations, migrants going to the intermediate-size cities may base their decisions on cost of living differences (Renes and Kumar, 1978), proximity to kin (Connell et al, 1976), or housing and quality of life considerations (Garst, 1978). To the extent that there is homogeneity with respect to economic opportunities at the different destinations, the non-economic or social factors will increasingly determine the pattern of destinations chosen by the migrants to smaller or medium-size cities.

Which destinations will be preferred by the less innovative? Due to their risk aversion, the "adoptors" will prefer destinations with a lower income

variation, hence with a lower probability of no earnings but a higher probability of some earnings, even if lower than elsewhere (David, 1974). They will also prefer short distance (i.e., lower cost) moves. While the "innovators" might take a fifty-fifty chance for a job of high pay and long duration, the "adoptors" will prefer a certain job, albeit of shorter duration or lower pay (Miron, 1978). In practice, these constraints will rule out the little known places or such places as frontier zones or "new towns" where jobs may be limited or rationed out on the basis of credentials.

The changes in probable destinations for each village are summarized in Table 1. The focus of the table is the likely migration types for villages with varying migration histories. An isolated village with little or no permanent outmigration will be characterised by a very different migration pattern and volume than a village with a history of much previous migration. Similarly, migration patterns will differ for villages where most permanent migration has been directed to one metrpolitan area versus those where it is dispersed among a few destinations.

Ceteris paribus, migration destinations of a village's outmigrants depend on the village's access to secondary information about destinations or to messages from prior migrants. Each phase is characterised by a larger volume of migration and introduction of addtional destination-specific migration streams. Transition to a new phase via introduction of new destinations will depend on the content of this information. Without changes in the messages or the structural factors precipitating migration, the village's migration pattern will not shift to a new phase.

Because village migration histories throughout a nation will differ, at any point in time, villages may be found in each migration phase. It is likely that each region or zone with similar structural economic factors

Table 1: Probable Migration Destinations by Village Migration History and Characteristics of Migrants

Village Migration History

Migration Type	Little Permanent Out-Migration	Concentration Phase of Migration	Dispersion Phase of Migration
Seasonal or circular Rural-Rural	-May be limited to innovators among the poor	-Volume high if costly transport to city* -Includes mostly less selective	-Volume depends on transport costs to cities* -Includes mostly the poorest
Permanent Rural-Rural	-Volume low -Includes more selective with prior seasonal R-R mig. experience	-Volume depends on land settlement programs. -Includes moderate to less selective with prior seasonal R-R mig. experience	-Volume low -Mostly less selective with prior seasonal R-R migration experience
Permanent Rural-Metro	-Volume low -Includes the most selective	-Volume high, esp. if low transport costs to city -Includes both more and less selective -May be circular migration for the less selective	-Volume high -Includes less selective and children of the most selective -May be circular migration for the less selective
Rural-Other Urban	-Volume low unless city is nearby -Includes the moderately selective	-Volume very low unless city is nearby -Includes only the moderately to less selective	-Volume high -Includes the more selective and some less selective

*Circular rural-metro or rural-urban migration or commutation may replace rural-rural migration in these phases if village is near city.

conditioning the need to migrate and a similar degree of integration with the national communications and transport network will pass through these phases at the same time. Likewise, villages with a high degree of intervillage communication are likely to be the same phase, because in a sense they share a common migration history, that of residents from either village. If large parts of a nation share these similarities or interaction patterns, then the nation's migration patterns will be characterised by the dominant pattern, i.e., by the phase in which most villages find themselves. Otherwise, no single phase will characterise the national pattern.

Innovations model propositions and supporting evidence:

The innovations model of migration derives from the concept that migration is an innovation, and the first migrants make a decision without the benefit of input from primary sources. Later migrants can and do rely on communications with prior migrants. Several propositions stem directly from this information-related view of migration decision making.

1. Earlier migrants from one place to another are innovators, in that they migrate despite the fact that their decisions are based on information from secondary sources.

Although migrants have been labelled innovators, to my knowledge no one has used this particular definition for innovators, hence there is no direct evidence supporting this proposition. Butterworth characterizes the middle and upper class migrants from Tilantongo to Mexico City as "risk takers" who have talked with strangers, speak Spanish, and are fairly cosmopolitan (1977). However, his work, like others who have described migrants as innovative risk takers, singles out neither the components of the decision making process nor the timing of moves relative to other migrations from the village.

2. Earlier migrants in a specific migration stream are more selective than later migrants.

This proposition follows from the fact that those who can utilize secondary source information and can risk trying something without prior assurance of its success are likely to be more selective, notably with respect to age, education, and wealth; hence are less risk averse.

There is a fairly sizable amount of evidence supporting the proposition of declining selectivity. Cardona and Simmons (1975) attribute declining selectivity in Colombia to possession of more information about opportunities in different places, while in his study of Tanzanian migration patterns, Collier (1979) attributes the lower educational and income levels of later migrants to deteriorating rural incomes and their knowledge that they can make a living in the urban non-wage sector, despite falling incomes in that sector. Browning's study (1971) is the classic analysis of declining selectivity among more recent migrants to large cities (e.g., Monterrey, Mexico), and his analysis documents the declining selectivity along several dimensions.

3. Earlier, innovative migrants are likely to choose larger cities, about which secondary source information is more widely available.

Because the earlier migrants are risk-takers seeking big opportunities and because the media are more likely to discuss opportunities in the large cities, earlier migrants are expected to go to large cities. Indeed migration studies have shown that many of the earlier urban in-migrants headed for the big well-known cities (See, for example, Mabogunje, 1965; Sternstein, 1976; Rempel, 1978). Skeldon's analysis of historical Peruvian migration patterns shows that the first migrants to cities came from provincial capitals (1977). This is the closest we come to an explicit test of this hypothesis.

Several authors show that migrants to large cities are better educated, have a greater urban awareness (i.e. more information), and/or tend to be more wealthy than migrants to smaller cities (Harkess, 1973; Wilkie, 1971; Rengert and Rengert, 1973). Suggestive as these studies are, they do not control for timing of the migration, hence are not explicit tests of the proposition.

4. The first villages to send migrants to big cities are more integrated into the national communication and transportation networks.

Because the first migrants require information in order to adopt the innovation of migration, places with access to information about cities are most likely to produce the earliest innovators. Several studies support this proposition. Of these perhaps the most explicit support is given by Conning (1972) in his analysis of origin communities in Chile; Brunn and Thomas (1971) in their discussion of migration to Tequcigalpa, Honduras; and Blair (1977) with his study of differential migration rates from sixteen Sierra Leone villages.

The corollary of this proposition is that if villages are not integrated into the national network, early migrants are likely to go either to proximate cities or to rural areas. Definitive evidence supporting this corollary is given in the studies cited above, as well as by Thomas and Byrnes (1974) for migrants to the small Colombian city of Tunja.

5. Early migrants from a village which has extensive social or economic interchange with another village or city are likely to adopt the migration patterns of previous migrants from the second village.

This proposition describes the process by which migration patterns spread from one village (or region) to another. If members of a village with little or no migration receive messages about migrants from a nearby

village, the first migrants from the non-migrant village are likely to choose the same destinations. Thus, although they are innovative from their own village, because they make use of primary source information from the migrant village they are actually later migrants relative to the nearby village. Skeldon (1977) provides excellent documentation of this spreading process in Peru.

6. Less innovative, later migrants base their choice of destination on information from kin or friends.

It is well-known that migrants make extensive use of information from kin or friends in deciding whether and where to move. If kin say they can help sustain a migrant while he looks for work, this reduces the cost of migration and influences the decision; likewise, kin may offer to help the new arrival find work, perhaps locating a position for the migrant prior to arrival. In fact, in many instances later migrants may only come after they have located definite work (Hay, 1974; Nelson, 1979). Of course, other factors such as cost of the move and employment prognosis may influence the destination choice, but even then, the potential migrant is likely to rely on the evaluation offered by previous migrants. In Bolivia, for example, the landless base their decision to move to LaPaz entirely on information provided by visitors, sons coming home from military service, and teachers posted to the community (Fernandez, 1976). Similar documentation of the importance of information from friends and kin is provided by Butterworth (1977), Deere (1978), and Rempel (1978).

7. The more migrants' decisions are based on information from primary sources, the more their migration strategy will incorporate opportunities provided by family and friends.

This proposition specifies the relationship between the nature of information and the content of subsequent decisions. To my knowledge there is no explicit test that this orientation stems from the information received from kin prior to moving. But there is certainly evidence that many migrants' lives revolve around family and friends.

Many of the later migrants do not pursue one of the scarce salaried jobs. They choose the informal sector because it allows them a freedom and potential not found either in the rural areas or in the formal sector of the cities (Nelson, 1979). For these persons, the information that kin or urban contacts provide concerning potential markets, where to set up "business," how to obtain (or avoid obtaining) the necessary permits is far more valuable than factory wage levels and the length of the queue waiting for a job.

A study comparing differences in communal responsibilities and mutual help highlights the importance of continuing kin involvement after migration. Keyser (1975) has shown that the tight-knit, cooperative inter-family organization of one rural Turkish village is repeated in the migrants' social structure in the city. Children are sent to stay with relatives while obtaining schooling. When their schooling is completed, the co-villagers help their charges obtain positions. As a result, the migrant group has generally prospered; in contrast are the difficulties and low mobility of a migrant group not characterized by cooperation or mutual assistance in town or country.

8. The process of migration from a community is accelerated by the receipt of positive messages concerning the outcomes for previous migrants.

Evidence supporting this proposition is found in two types of studies. The first shows that migrants from a village or region are most likely to choose destinations inhabited by co-villagers or co-regionals who have already moved there. Numerous studies document the importance of migrant stock in determining migration destinations. (See, for example, King, 1978; Levy and Wadycky, 1973; Rempel, 1978). The second type of study supporting this proposition is of a more anthropological nature. Migrants from one village are studied to determine the chain of events that ultimately brought members of one particular village or zone to the city. Examples are found in Barou (1976), du Toit (1975), and Lomnitz (1977). Lomnitz shows that the rural-urban migrants in one Mexico City Shanty town come from only a few villages outside the city. In a typical chain of migrations, the subsequent migration of practically the entire extended family results from the initial moves of two brothers who came to the city and found positions as carpet layers. In the succeeding years, family members joined the brothers, with most males becoming carpet layers through the training and contacts provided by the family members already resident in the city.

9. Access and receptivity to messages from previous migrants will vary with intravillage, class, religious and/or ethnic distinctions.

Although the existence of messages from previous migrants raises the village's general awareness of migration options, not all messages will reach every person within the village. Letters or visits home from secondary school pupils in a distant city are likely to reach only their family or those in a similar position (i.e. other would-be migrant students). In addition, migrant messages are likely to be confined to the migrants' own

religious or tribal network. Wilkie's (1971) study of intravillage spatial awareness differentials demonstrates the extent to which awareness and messages are a class-bounded phenomenon. The middle class had sent migrants to different places, and it was the middle class who knew of the more distant destinations.

Similarly, class and ethnic distinctions will color villagers' receptivity to messages from migrants. Tales of the successes experienced by the well-to-do are likely to be of no relevance to the poor who have literally no way of putting themselves in the shoes of the rich. Additionally, within class or ethnic groups, receptivity to messages will differ. Migration does not depend solely upon awareness of positive migration consequences; a whole host of other factors influence the ability of persons to act on that information (Wolpert, 1965 and 1966). Though class-related phenomena may generally determine the villager's receptivity to migration, family and individual characteristics may preclude migration at the time when the villager first learns of migration. In one Mexican village, for example, only households with three adults can contemplate sending one over the border to U.S.A. for an extended period. Other households can send one member to Mexico City or other neighboring areas, and those with only one adult are prevented from considering any migration strategy (Weist, 1973).

10. Less innovative migration is more likely to be a familial response to spatially limited economic or social opportunities.

This proposition focuses on the transition from migration primarily by individuals to that of and for family units. Among later less innovative migrants, we expect migration decisions to be determined by the family's perceptions of how best to allocate it resources. Migration itself may involve the entire family or only establishment of spatially discrete branches of the family.

Deere's study (1978) of family adaptations to the end of the hacienda era in highland Peru illustrates the essence of this proposition. When peasants worked in the hacienda system, the family was only able to accumulate an earnings surplus by working more land and providing additional labor to the hacienda. Children were the only resources by which the poor could accomplish this goal, hence patriarchal control of family labor and high fertility were encouraged. With the break-up of the hacienda system, the poor lacked the capital to buy large farms with good soil. As successive generations have subdivided the land, farm size has dwindled. At the same time, it is no longer possible to acquire more land in usufruct or to sell children's labor to the hacienda. In response, families have increasingly turned to migration. By 1976, half of the surveyed rural households had migrant children, of whom one-third had gone to Lima or other locations outside the province of origin. Whereas in the hacienda days, temporary, seasonal migration to coastal plantations was common, more permanent strategies are needed now. Migrants now go to the cities, particularly Lima. They become the city links in the family's strategy. They send back remittances, provide shelter and schooling for younger siblings, and a "beachhead" from which the siblings or other rural relatives can start their search for work in the city.

Other studies supporting the proposition do not relate as well to the entire proposition; nonetheless they buttress the concept. Connell et al (1976) find in India that land shortages feed the fires of rural-urban migration. The youngest sons of large families are sent away; women remain in the village to work the small amount of land to which the family has access.

In rural Colombia, the response to changes in the patterns of ownership and/or production has been fairly complex, but here, too, migration enters in. Traditionally, peasant families could sustain themselves through

some combination of subsistence, wage or artisan labor. Now, however, this is not possible. Wages offered are not high enough to enable families to cover their expenses. As a result, men leave to find better paid work elsewhere. Poor women have replaced the men in filling the low wage, exploitive jobs. Although the work undertaken in the four study zones ranges from work in coffee and sharecrop fields to work in textile industries or "community enterprises," the response is equivalent. Men leave while the remaining women stay, powerless to alter the exploitative nature of their work, since they have no other earning opportunities (Leon de Leal and Deere, 1979).

The familial response need not entail permanent migration. In the more densely settled areas of Indonesia, for example, men may commute to the nearest city. Commuting allows men to participate in the urban labor market without sacrificing their village home (Hugo, 1977).

Nor, is it only men that move. In highland Bolivia, for example, entire families move, finding new and more diversified economic niches after the move to the lowlands (Stearman, 1978).

These few examples demonstrate that while the family's response to changing circumstances may vary, migration is certainly a central aspect of the response. And it is likely to be part of a strategy designed to sustain the entire family unit.

11. Changes in the content and amount of information about opportunities in potential destinations will alter the pattern and/or volume of migration.

This proposition addresses the dynamic process by which new destinations, i.e. new migration innovations, are introduced while others are phased out. As mentioned previously, the new information may affect migration decisions of just one or of several types of potential migrants.

There is no question that changes in economic opportunities at the origin affects migration, particularly among the less innovative. For example, Berreman (1978) documents the accelerated migration rates that have accompanied overpopulation and resource depletion in the Western Himalayas. Similar situations are reported in Kenya by Gupta (1979), in New Hebrides by Bonnemaison (1977), in parts of Africa by Adepoju (1979), in Bolivia by Stearman (1978), and in Nicaragua by Nietschmann (1979).

It has also been shown that migration destinations may change if there is a change in the relative distribution of opportunities. If economic opportunities become more concentrated, migrant streams will become less diversified, as Collier and Green (1978) have demonstrated for Kenya. On the other hand, if the opportunities become more dispersed among several destinations, migrant streams will also diversify, as for example in Malaysia, where the fastest growing cities are those with more than 20,000 persons, not Kuala Lumpur (Pryor, 1978). Similarly, there is evidence that professionals in Chile (Herold, 1979) and Thailand (Goldstein et al, 1977) now head for provincial cities rather than the capital city.

But this proposition specifically implies a change not necessarily in opportunities but in the available information about opportunities. There may be a change in opportunities elsewhere, but unless these are reported back to the village, migration patterns will not change. Because the most reliable information sources are previous migrants who have experienced these changes, the response to changes in opportunities will emanate first from villages that have a more diversified migration pattern with messages coming back from more than one destination. And because potential migrants are less sensitive to negative messages, the response will be stronger to news of new opportunities than to warnings of hard times, particularly if the latter are conveyed by secondary

sources (Collier and Green, 1978). Collier and Green document the information-related dispersion of Jamaican migrants to the United Kingdom. Friends' descriptions of their successful post-migration lives encourage more to follow, despite the official prognostications of failure given in the press.

Additional support for the proposition comes from a study of mental maps among Venezuelan migrants (Jones, 1978). Among those surveyed perceptions of economic opportunities and quality of life in various urban destinations better explain migration patterns than the actual differences. The difference between reality and perception results from the anti-Caracas, pro-Andes/East-Coast images conveyed by the media.

Some Final Considerations:

Subpropositions could be added to modify these main propositions, but they are not essential to the innovations model of migration. Those given above adequately specify the process of innovation diffusion as it applies to migration. They show why there are distinctions between the innovators, the early migrants, and adoptors, the later migrants. Additionally, the propositions define the mechanisms by which migrant destinations or mix change. All are based on the concept that migration is an innovation whose adoption depends on the nature and content of information available about that innovation.

Although there has been no explicit test of this innovations model of migration, I have cited numerous empirical studies which offer piecemeal support for the concepts. The current lack of explicit empirical evidence for the entire model, however, does not mean that we can't address some of the implications of the innovations model.

The model is consistent with the "new" image of migration as a complex process, not necessarily a "single-time, irreversible decision or move"

(Abu-Lughod, 1975). It highlights the importance of ethnicity and kin, of persistent rural-urban linkages, of multiple migration possibilities, and of an individual or village's migration history, all of which are emerging as important considerations for understanding the present diversity of migration flows in developing nations.

While the innovations model recognizes the relevance of the "job search' model of migration, it explicitly incorporates the role of family and friends in the job search process. It does not force the job search process into one particular behavior or time period, thereby overcoming the weakness of prior job search models which only allow the "pound-the-pavements" version of job hunting. Rather, work may be found prior to moving by arrangement with family members in the city. Or, work may be offered once one has proved oneself a reliable member of the social network into which one has migrated. What becomes essential for the later, less innovative migrants is not the search for jobs per se, but the search for a suitable niche among family and friends, a niche from which finding work is more likely.

In addition, the model explicitly allows for changing migrant destinations. It can be used to predict concentration or dispersion of migrants. If information about opportunities changes, migration changes are likely.

This mechanism may be an important but overlooked aspect of the timing and nature of the polarization-reversal stage hypothesized by Richardson (1979). He cites evidence from several nations showing that urban growth is becoming less concentrated in the largest cities. It would be interesting to examine the extent to which migrants have accelerated or decelerated the process through their response to information about the various cities. For example, we might ask which types of information produced a more rapid dispersion of migrants away from the large city and from which areas these migrants were drawn.

While these and other heuristic contributions of the model could be explored, it is equally important to note some potential shortcomings of the model.

First, obtaining data pertaining to the information on which the migration decision is based may not be straightforward. Considerations that complicate the issue are whether the move was initially perceived as migration or a visit, recollection of the decision process itself and of the components thereof, and relative weights placed on secondary vs. primary source information.

Second, each migrant stream represents a separate innovation for that village, but some are more similar than others. Thus, the degree of innovation will vary, and it will be necessary to incorporate this variation into the model.

Third, distinguishing early from late migrants except on the basis of information used prior to adoption of a specific migration innovation may be difficult. Definitions incorporating timing or socio-economic selectivity will be complicated by the need to take into consideration the village and region's migration history (who really is an early migrant?) and the existence of less selective "early" migrants as well as more selective "later" migrants.

Fourth, assessing information about changing opportunities requires a very different type of research than simply defining changes according to the demand for labor or other objective conditions. It will be necessary to define an "opportunity" to include the sense of opportunity given by family or friends. Also, information sources may vary, from place to place and some types of information might be overlooked as not relevant when in fact they are.

If the model is valid, it underscores the complex aspects of the migration process. Economic opportunities certainly mold the villager's interest in considering migration, but the actual migration may depend more on his information, his contacts, his familial coping strategy than jobs or wages alone. Such findings have significant implications for the policies adopted to affect migration flows.

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