

The Migration of Labor

Oded Stark

Preface

The work reported in this book was carried out over nearly a decade with most of the research undertaken during my tenure as the Director of the Migration and Development Program at Harvard University. The long time span involved in carrying out the work and the intense engagement in research and teaching have produced ample opportunities for interactions with colleagues, students, and collaborators. Many served beyond the call of duty to provide inspiration and support that led me to explore yet another dimension of labor migration. I am particularly indebted to B. Douglas Bernheim, David E. Bloom, Oded Galor, Eliakim Katz, Jennifer Lauby, David Levhari, Robert E. B. Lucas, Mark R. Rosenzweig, Vibhooti Shukla, J. Edward Taylor, and Shlomo Yitzhaki. The support and guidance of the Faculty Advisory Committee of the Migration and Development Program must also be gratefully acknowledged. In particular, C. Peter Timmer and Zvi Griliches, chairman and committee member respectively, provided inexhaustible encouragement and invaluable help. The Andrew W. Mellon Foundation, the Alfred P. Sloan Foundation, and the Ford Foundation have supported most of my work. I was also supported by the World Bank and the David Horowitz Institute for the Research of Developing Countries at Tel-Aviv University. It is my hope that these foundations and institutions will accept this book as a modest return for the confidence they have placed in my research. Having accounted for my academic and financial indebtedness, I would like to acknowledge the spiritual and emotional support of my wife, Shua Amorai Stark. While my passion for migration research resulted in numerous migrations from home, her love, trust, and sound judgment, together with the understanding, kindness, and patience of our children, Eran and Alit, repeatedly replenished my dwindling stock of perseverance, insight, and optimism.

This collection includes my more interesting papers on labor migration. Many were first disseminated in the Migration and Development Program

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Introduction

This book models afresh labor migration and various phenomena and processes associated with it. It builds on three premises.

First, even though the entities that engage in migration are often individual agents, there is more to labor migration than an individualistic optimizing behavior. Migration by one person can be due to, fully consistent with, or undertaken in pursuit of rational optimizing behavior by another person or by a group of persons, such as the family. As the book amply demonstrates, this premise shifts the focus of migration research from individual independence to mutual interdependence. Various implicit and explicit intra-family exchanges, such as remittances, are thus integral to migration, not unintended by-products of it. And given the overall pattern of the demand for labor, the performance of individual migrants in the absorbing labor market can largely be accounted for not just (as in standard human capital theory) by the migrants' skill levels and endowments but also by the preferences and constraints of their families who stay behind.

Second, there is more to labor migration than a response to wage differentials. Thus migration in the absence of (meaningful) wage differentials, or the absence of migration in the presence of significant wage differentials, does not imply irrationality. Migration is fundamentally dissimilar to the flow of water, which will always be observed in the presence of height differentials. This premise compels consideration of new variables, such as income uncertainty and relative deprivation, and invites the study of associated phenomena, which include migrant – family pooling of risks, the returns from migrant children and hence the demand for them, and the size and composition of human capital investments in children.

Third, a great many migratory phenomena would not have occurred if the set of markets and financial institutions were perfect and complete. Furthermore, markets are usually far from free of asymmetries, externalities, cross-over effects, and technological lumpiness. A family in rural Maine can capitalize on the industrial development of California's Silicon Valley by buying shares on the New York Stock Exchange. Migration out of Maine is not necessary. But, especially in less developed economies, entry to a specific labor market is often barred by constraints in capital, commodity, or financial markets. These characteristics tend to encourage migratory phenomena that would not have arisen if, for example, information were completely symmetric, if financial (insurance, credit) institutions functioned smoothly, or if returns to exchange among agents exhibited linear regularities. And the often quoted "golden rules" of migration, such as the inverse relationship with distance, become subject to an unconventional twist: when informational asymmetries and lower income covariance are conducive to migration gains, distance as an explanatory variable enters positively.

This book attempts to explain labor migration in light of these three premises and, as hard as the task may be, in light of their interactions. It offers new insights on why and when entities such as families may find it optimal to behave strategically, to act simultaneously in, and to distribute their human capital across, several markets, and to sequence their actions in a particular fashion. This book demonstrates how in the larger scheme of things migration is ingeniously and efficiently harnessed to assume a variety of tasks. It also takes a novel look at how migratory outcomes are fed back into and modify the very market environments that stimulated migration.

A prolonged study of a topic is bound to be associated with a progression of thinking. This entails a change in focus and a shift of interest that should not be confused with a change in belief. Early on I spent considerable energy in an effort to cool down the profession's over-fascination with the expected income approach to the study of migration. I suspected the behavioral foundation of the approach to be rather slim, and doubted that the inducement to migrate would be eliminated when the differential between the expected urban wage and the certain rural wage was zero. For example, since risk-averse individuals, by definition, would prefer a given certain wage to a probability mixture of wages the expected value of which is equal to that certain wage, a zero intersectoral wage differential would imply urban-to-rural migration, and a zero (net) rural-to-urban migration would entail a positive equilibrium differential; in other words, the no inducement and no differential conditions are mutually exclusive. As yet another example, I also argued that, if risk-neutral individuals attach any value to leisure, they cannot possibly be indifferent between a given rural

sector wage W_R and a higher urban sector wage W_U conditional on a probability $p > 0$ of attaining it (and a $1 - p$ probability of not working and thus having an urban wage of zero). To simplify matters, assume that a standard unit of work time S exists in both sectors implying, for example, that S days of work fetch W_R in the rural sector or W_U in the urban sector. With a zero intersectoral wage differential $pW_U - W_R = 0$, the rural sector pair of leisure and wage $(0, W_R)$ is dominated by the urban sector pair $[(1 - p)S, pW_U]$, and thus rural-to-urban migration *will* take place (see Stark, 1982). It was thus a matter of natural evolution to place considerable and increasing emphasis on the families' decision-making process leading to migration. I believed then, as now, that in social science research in general and in migration research in particular we need not necessarily search for the explanation where we observe the phenomenon. (As an old Russian proverb has it, it is not the horse that draws the cart, but the oats.) Placing the family, rather than the individual, at the center of the migration decision (this need not imply/result in migration *by* the family) was a relatively new direction. This must not be interpreted to suggest that the behavior of individuals should be ignored, but rather that it should be analyzed in the context of a decision-making unit operating as a group. And the group, to wit, the family, should not be treated as if it were an individual. I even postulated that migration research could turn out to be a highly profitable means of studying the family. I thus suggested that real advances will be made in migration research upon substitution of a principal agent study for a lone agent study. The family can be conceived as a "coalition," a group of players committed by choice to act as one unit *vis-à-vis* the rest of the world. This not only facilitates protection from attempts to exploit individual weaknesses but also renders it possible to obtain more together than separately. Migration by family members can be interpreted as a manifestation of the viability of the family: substituting space (scope) economies for scale diseconomies that limit the capacity for coinsurance; simultaneously sampling from a number of separate markets (that is, investing in one without completely liquidating and shifting holdings from another); sharing both costs (for example, financing the move) and rewards (for example, through remittances); and so forth (see chapters 4, 6, 15, and 16). There are, of course, interesting interactions within the family coalition concerning how to share what has been obtained together through specialization (migration by some, nonmigration by others) and cooperation (for example, exchange of risks). Here the notions of relative powers, bargaining, altruism, and so forth count (Stark, 1983, 1984).

The idea that the family involved in migration is an alliance of agents that engage in a game with each other as well as against a "common enemy" directly or indirectly inspired several of the chapters in the book.

A particularly interesting line of inquiry is that where the “common enemy” – against whom the game is played – constitutes an entire distribution of a set of families. The consideration that the well-defined outcome of a particular inter-familial comparison at origin results in differential inducements to have family members sent out as migrants is taken up in several chapters (notably 6, 8, and 9). The dual game approach also established the framework for a more recent interest in the particular forces that govern the results of the last of the games described above. Here, I felt that to obtain a significant improvement in our understanding of the economic performance of migrants it would be productive to study the structure of incentives that migrants face, rather than their vector of characteristics (see chapters 27 and 28, and Lauby and Stark, 1988). In addition, I felt that the unexplored issue of what rules govern the interactions between migrants in the receiving economy on the one hand, and between migrants and nonmigrants on the other hand, could tell us a great deal about several aspects of migration, such as the distribution and clustering of migrants in the receiving economy, the optimal size of the concentrations of migrants, and the rationales for the creation and disposition of “network and kinship capital” (chapter 3). The payoff to future research in this direction could be quite high.

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Part I

Overviews

Research on Rural-to-Urban Migration in Less Developed Countries: The Confusion Frontier and Why We Should Pause to Rethink Afresh

1 Introduction

Researchers in the field of social sciences are often placed on the defensive when challenged by planners and practitioners: "This or that idea of yours may be good publication material, but what can I learn from it?" Planners and practitioners often have cause to be in an aggressive mood: pressing issues must be attended to, while researchers busy themselves in the pursuit of other avenues, perfecting and expanding works that they initiated long before specific topical concerns have arisen. This conflict stems partly from practitioners and researchers having different time preferences and discount rates, no doubt reflecting different things being maximized (for example, being reappointed versus producing a definitive, scholarly, or scientific work). But it often mars the field as well as the life of conscientious researchers.

To the casual observer or the scholar seeking to make a contribution only to find the arena overcrowded, the study of rural-to-urban migration, especially of labor, in less developed countries (LDCs) appears to be an unusual and enviable exception – a rare convergence of real-world concerns, professional interest, and productive research activity.

However, recent intensive research in the field of rural-to-urban migration – the high surge in research activity appears to have started off with Todaro's pioneering article (Todaro, 1969) – has left the field beset with loss of direction, considerable confusion, and serious doubts as to (a) whether research has really provided practitioners with finer, more *specific* means of intervention, if it should be deemed desirable, (b) a proper

understanding of such intervention, its justification, and results, (c) the areas in which the marginal benefit of extra research amounts to zero, (d) those areas in which some solid consensus has emerged, and a clear formulation of this consensus, (e) which problem areas and specific issues in them merit additional intensive migration research in the coming years, and (f) whether or not the academic profession has based its migration research effort in the recent past largely on an inappropriate set of presuppositions or, even worse, on invalid postulates.

To render this list and the accusations leveled in it more concrete, we shall present and document a few examples of confusion and/or fallacies that come readily to mind. Rather than suggesting the simultaneous existence of competing schools of thought – often a healthy sign of a dynamic and competitively developing field of research – these examples illustrate what appear to be conflicting axiomatic stands leading to the deliberate bending (or neglect) of evidence rather than to its accumulation and unbiased interpretation. No less serious, such stands are often sublimely transformed into doctrines which (naturally) give rise to conflicting policy prescriptions.

2 Migration and Fertility

The macro long-term statistical association between rural-to-urban migration and fertility is unequivocal: when the former increases the latter declines (possibly with some lags and variations, for example, with destination – city size). The underlying reason is that the urban environment and labor market, with their different relative prices and income constraints, are less conducive to large families than are rural areas. It is also possible that a self-selection process operates here whereby locational preferences – migration – reflect and serve pre-migration-formed fertility preferences (Ribe and Schultz, 1980; Lee et al., 1981).

However, there is no very sound migration, fertility, or economic theory here. If bearing and raising children is more costly in an urban environment then, although exposure to that environment could produce the postulated effect, it is not clear from this argument why families should subject themselves to that environment in the first place. Obviously, it makes good economic sense for them to raise children in rural areas – where it costs less – and then have them (or their families, with them included) migrate to the urban sector.

The preoccupation with the fertility behavior of rural-to-urban *migrants* has led to a complete disregard of another variable in the migration–fertility linkage. This variable has to do with the micro decision-making association. Consider a modal agricultural family, assumed to be the decision-making entity,¹ which attempts to transform “familial” into “capitalist” production. It usually faces two major constraints. First, there is the “investment capital” constraint: the transformation (for example, to high-yielding varieties) requires some investment funds which a small farmer family with its existing resource endowment and a “pre-capitalist” mode of production is unlikely to possess or generate. It is both relevant and interesting to note that most of the recent “relevant technological transformations” depend crucially on new factors and inputs – elements in which the very transformation, the new technology, is embodied. This in itself (apart from the component complementarity that characterizes these technologies) creates strong discrete needs for investment capital and produces a new pattern of technological change which differs from traditional technological progress – a continuous change involving gradual increments to the quantities of *existing* factors facilitated, in turn, by a continuous accumulation of savings.

The second constraint is that of risk. The transformation to a new technology magnifies the subjective risks involved in agricultural production, whereas the family unit is assumed to be risk averse. Thus the major obstacles encountered are bridging the gap between the family’s desired investment capital and its necessary cash outlays (including existing savings) and, once this is accomplished, resolving the conflict between the family’s aversion to risk and the increased risk element in its portfolio.

In the absence of smoothly functioning credit markets or appropriate institutional facilities, and when insurance markets either do not exist or charge prohibitive premiums, the family must reorganize the utilization of its *own* resources. It is here that rural-to-urban migration by the most suitable family member – a mature son or daughter (especially if educated) – comes into the picture. In bypassing the credit and insurance markets (with their bias against small farmers) migration facilitates the transformation; it succeeds in doing this via its dual role in the accumulation of investment capital (acting as an intermediate investment between technological investments, which have a certain lumpiness, and investment in financial assets, which, if feasible, has a low (or even negative) return), usually generating significant urban-to-rural flows of remittances,² and, through diversification of income sources, controlling the level of risk. This “portfolio investment” in urban earning activity (migration by a maturing family member) as a risk-alleviating device assumes, in particular, that the urban sector is statistically independent of agricultural production.³

In an economy where transformation of production modes cannot be performed directly, grown children *as migrants* thus assume the unique role of financial intermediaries. From a private parental point of view, and considering lifetime utility, children are generally seen to yield various direct and indirect utilities which may be conveniently designated "consumption utility" (children are a source of personal pleasure and satisfaction), "income utility" (children directly contribute to the family's income by working), and "status, security, and insurance utility" (status, for example, when position and power are established through child-generated familial ties, security, especially old-age security, and insurance as an extra child can generate various utilities if other children fail to do so, mainly because of early mortality). The alleged role of children as migrants implies that a new element is added to the utilities-from-children vector, namely facilitating production transformation. This element is distinct from the others, especially from the income utility element, in that children's primary role as migrants is not to generate an income stream *per se*, but to act as catalysts for the generation of such a stream by precipitating an income-increasing technological change on the family farm.⁴

This is an intriguing assertion because, if thoroughly tested and verified,⁵ it will imply that, whereas with an adaptation lag that could last as long as a whole generation, rural-to-urban migration may lower the fertility of the migrants or of their urban-born offspring, the specific valuable task that children *as migrants* fulfill may induce higher demand for children and *higher fertility* – the very birth of the migrants themselves.

3 Migration and Education

Conflicting views also abound on migration and education. On the one hand it is argued that the better educated rural youngsters who acquire nonrural specific human capital and possess more human capital – and hence are also less risk averse – are induced to migrate townwards (Barnum and Sabot, 1976). On the other hand, poor educational opportunities in rural areas induce rural families, especially the wealthier ones, to send their children to school-rich urban areas. So, should the absence of education or its availability be held responsible for generating rural-to-urban migration?⁶ Or, perhaps, will nonhomogeneous education (in quality or orientation) differentially affect migration propensity; with education of the "right kind" discouraging it and other types of education enhancing it?

Note that in both cases, if educational expansion is universal, externalities can no longer be ignored; the end result could be very near homogeneity of degree zero throughout. Higher returns to more education (and to more human capital in general) inversely relate to its scarcity. Rural educated youth may find that acquisition of more urban-specific education fails to enhance their employment prospects in the urban sector and is of no (or limited) use in making them more proficient in rural occupations. And if what migrants really care about is their relative position (rank) (Stark, 1984), the end result could be exactly homogeneity of degree zero.

It is probable that there are richer layers of explanation on both sides. We shall proceed with just two illustrations linking the argument to the issue of fertility dealt with in the preceding section. First, in a time series context, education may very well correlate negatively with migration. An educated rural girl is likely to desire and achieve lower fertility which, in the long run, will reduce rural-to-urban migration.

Second, take for example the case of the small farmer and the credit crunch raised in the preceding section. Whereas the small farmer has no effective (or sufficient) access to institutional or other credit, nor can he expect this situation to change,⁷ his children usually have access to some sort of state education which is often a pure public good, largely financed by government subsidies and not (directly) by the pupils' parents. Thus a small farmer's vicarious entrance into a less discriminating market can be viewed as a surrogate for participation in one into which his entrance is effectively barred. Banking on the expectation of a high cross-return to the joint decision of educating a child and then "expelling" him or her to the urban sector, migration (and the education preceding it) thus substitute for the credit deficiency, the alleviation of which is mandatory in facilitating technological change on the family farm. Farmers therefore deliberately use the educational system to prepare for their children's migration.

4 Migration and the Distribution of Income by Size

Another popular view held by some of the better writers in the field is that migrants are twice to blame for increasing inequality. Because of the selective nature of migration, rural areas are depleted of scarce human capital, entrepreneurial skills, and leadership for agricultural development. At the urban end, migrants, even if employed, join the less productive earners at the lower end of the income distribution (Lipton, 1977, 1980). However, if we view the income-receiving unit as the family as a whole, *including* its young migrant member, the argument is reversed.

The family, excluding the migrant, and the migrant himself are “bound together” for a considerable period of time in a cooperative game. By taking a *joint* decision as to what course of action each party (player) will adopt, they secure a mutually advantageous coordination. This produces a result (total income or utility) which, from the point of view of any one of the players, cannot be bettered by “going his own way,” that is, compared with his noncooperative prospects. The cooperation, evidenced in the maintenance of close economic ties for a considerable period of time (for example, urban-to-rural migrant-to-family remittances, or provision of rural-based insurance against upheavals in turbulent urban labor markets), the implied pooling of resources, and the joint decision-making with respect to income plans, both earnings and disposition, can then easily be shown to reduce inequality in the distribution of income by size, as measured by the Gini coefficient, or to increase welfare directly as discerned by application of stochastic dominance and Pareto criteria (Stark and Yitzhaki, 1980; Stark, 1984).

In addition, some macro simulation exercises have unmasked the real equilibrating beauty of rural-to-urban migration, especially in a non-short-run perspective (Ahluwalia, 1976; Adelman and Robinson, 1977; Knowles and Anker, 1977).

5 Migration and Urban Employment

Many rural-to-urban migrants rationally, although involuntarily, join the ranks of the urban unemployed since there are fewer high-paying formal sector jobs than rural laborers who migrate in response to their creation (Todaro, 1979, 1980a). Yet, drawing on their own savings or on familial or similar support, migrants may willingly go through a prolonged period of urban unemployment as an optimal strategy of investment in search of high-paying jobs, particularly when free-entry informal sector employment is available at a competitively determined market-clearing wage. There are thus two labor market equilibrium conditions. The first is the usual intersectoral one. To specify the second, assume for simplicity that migration decisions are based on a two-period planning horizon, that is, all future periods collapse into the second planning period. When formal sector employment cannot be secured in the first period, two competing strategies are feasible: (a) accept informal sector employment in the first period, and in the second period move with probability p into a higher-paying urban job or pursue (with the complementary probability) informal sector employment; (b) reject informal sector employment and remain

unemployed, but invest in information and engage in intensive formal sector job searching to enhance the probability of being employed in that sector in the second planning period from p to $q > p$. Alternatively, take up, with the complementary probability, an informal sector job. At equilibrium, the expected return discounted to the present of adopting each of these two strategies is the same. As long as q is larger than p , urban unemployment could well make sense as a deliberate *post-migration* choice.

Whereas standard economic theory maintains that downward supply pressures will prevail when the price of a commodity is set artificially (institutionally) high, it fails to provide any insight into the operation of the “inverse black-market mechanism” through which the limited slots are allocated among the many participants (because of the homogeneity assumption). Rather than passively awaiting their turn to be randomly selected, rural-to-urban migrants may choose unemployment so as to engage in the resource- and *time*-consuming operation of acquiring preferential treatment, say, by cultivating oligopolistic shop stewards. This process may convey a positive externality onto a specific community – the migrant’s extended family or his fellow villagers – and could therefore be sustained by that community.

Note that rural-to-urban migrants may choose to remain unemployed for yet another reason. Their acceptance of a low-paying low-skill informal sector job could be construed as a signal, albeit an imperfect one, by the *formal* sector, reflecting their (apparently) inferior labor force qualifications and personal traits. Thus a revealed low supply price, suggestive of a low level of human capital and general skills, could consequently reduce the expected urban income stream by more than immediate acceptance of informal sector employment would increase it.

6 Migration and the Politics of Economics

A widely held view is that rural-to-urban migration raises food prices and increases urban revolutionary potential; underemployed, unemployed, and low-income urban laborers whose absolute or relative deprivation and frustration might be converted into political action threaten the stable political order that is so crucial for smooth production and continued profit-taking. Governments are impatient, and researchers are often called upon to produce virtually unanimous prescriptions designed to contain the “drift of rural migrants into the large urban centers,” for action-prone governments to act upon (United Nations, 1979).

However, an equally powerful argument can be advanced to show why governments do not really want to stem the "tide of migrants to the cities" (Stark, 1980a). It will draw upon the profit-maximization motive of profit-seekers who participate in government, influence its decision-making, or provide it with crucial, tacit, or explicit support. By dampening urban wages, or mitigating their rise, migration increases profits and thus, statically and dynamically, serves the fundamental interests of these profit-earners. In a similar vein, migration serves the interests of urban landlords in raising or putting an upward pressure on urban rents.

In recent years increasing emphasis has been placed on the argument that a great deal of rural-to-urban migration is due to urban bias in the allocation of national resources, especially public investment and public expenditure. Political priorities manifested through economic strategies are the root cause; rural-to-urban migration is the observed malady (Lipton, 1977; Newland, 1980). But rural-to-urban migration may also be the healing agent. The political economic biases are more likely to be toppled by relatively new urbanites who gradually acquire access to the decision-making apparatus without abandoning their familial ties and property rights in the rural sector. The equilibrating beauty of rural-to-urban migration may be manifested once again.

7 Migration and Policy Measures

Another widely held view is that, since expected utility maximization under substantial intersectoral income differentials induces rural-to-urban migration, policy measures designed to dampen urban incomes (a freeze on urban real wages) or to increase rural incomes (farm price supports) are essential (Todaro, 1980b). Development strategies must be restructured to redress past unbalanced growth and urban biases, and to take proper account of agricultural and rural development (Lipton, 1977). At the same time, leading international development agencies frequently and increasingly adopt accommodationist policies that "aspire to improve the lot of migrants" (Laquian, 1979). Such policies (for example, sites and services projects, reception centers for new migrants) run counter to the perceptions mentioned earlier, since, virtually by definition, they increase the attractiveness of the urban destination, often not so much by increasing expected income as by decreasing uncertainty (income variance). But this does not really matter, since in a utility-maximizing exercise both expectations and variance count. Accommodationist policies are thus conducive to

rural-to-urban migration rather than being an added constraint on it. It is worth expanding this point a little.

It can be shown (Stark and Levhari, 1982) that risk avoidance, *not risk seeking*, is a major explanatory variable in rural-to-urban migration decisions. This is so not only when the migration decision-making entity is the family (as already mentioned, migration implies a risk-reducing portfolio diversification of income sources) but also when it is the individual. If he were to pursue agricultural production he would have to endure some level of risk per period emanating from the low immunity, especially of traditional agriculture, to stochastic variability in rainfall and weather conditions, plant disease, attacks by pests, etc., all of which affect both grown and stored crops. This low immunity is especially hazardous as it is usually coupled with an absence of institutional insurance arrangements. If an individual migrates from the rural to the urban sector, he is not subjected to similar periodic risks. At first, risks are very high. Entry attempts into high-paying sectors may fail. Entry into low-paying sectors, which may be relatively easy, entails a high probability of discontinuity of employment because of high sensitivity and hence vulnerability of these sectors to market fluctuations. But risks associated with urban employment diminish with time and may be relatively low – that is, lower than the typical risk associated with agricultural production – after some initial high-risk period. An individual who engages in rural-to-urban migration under such circumstances is obviously one who attaches a premium to an early resolution of (much of) his lifelong income-associated risks. He trades in "medium-level" risks for immediate higher, but thereafter lower, risks.

This hypothesis, if substantiated, opens up a new range of policy measures. If institutional intervention aimed at reducing migration is deemed desirable, it will be efficient to shift away from exclusive (so far largely futile) attempts to narrow the intersectoral wage differential toward transformation of rural income-earning activity into a less risky proposition, for example through the creation and/or perfection of rural insurance markets, direct provision of technological insurance to small farmers, etc.

Similarly, optimal techniques in urban industry must be relatively capital intensive (rather than labor intensive) so as to avoid inducing extra migration through "excessive" job creation (Todaro, 1980b). However, migrants' saving behavior may enhance, not impede, investment and growth, and thus the optimal choice could favor labor intensity after all, compatible with national resource endowments and scarcities (Stark, 1981b). A new urban job may attract so many productive rural laborers that the shadow wage pertaining to an urban marginal new project could be

pushed high above the market ruling wage (Todaro, 1980b). Yet, again, migrants' saving behavior could be shown to generate a shadow wage *lower* than the market wage relationship as the negative net contribution of changed consumption to the shadow wage outpaces the positive production opportunity cost (Stark, 1980c, 1981a).

It is also not quite clear why "disequilibrium" in the labor market – manifested by a continuous rural-to-urban migration – should be addressed by intervention in *that* market. In a general equilibrium context, disequilibrium in one market must coincide with disequilibrium in another and the two are causally related. As made clear in section 2, the roots of rural-to-urban migration can be found outside the labor market, that is, in the ill-functioning capital market. Improving the operational efficiency of *financial* markets (where major imperfections are asymmetry in information and transaction costs which create barriers to trade) could bring about the desired impact in the *labor* market. (A good example is India's Farmers' Protection Deposit Scheme, whereby depositors who are paid only a low interest rate are granted the right to borrow up to twice the outstanding deposit at a modest rate of interest in the event of crop failure (Bhatt, 1978). Thus a reason for migration – aversion to increased production risks which cannot be effectively hedged against given the existing structure of the insurance market – is, at least partially, removed.)

8 Conclusions

This list could be extended further, but it suffices to illustrate the conflicting views, biases, confusion, and fallacies, and hence the disappointing dissipation of enormous cumulative research effort.

Responsibility for the present dire state of the art probably rests on the overcrowding of researchers in a narrow zone (undercrowding in the "real" field), which is rapidly decreasing the usefulness of their work. Furthermore, more often than not it has implied repeated reference to an unwarranted expansion of conventional notions emanating from a theoretically weak (yet often staunchly defended) center. A great deal of work has been produced through sheer inertia, and very little from fresh departures. Presuppositions necessary to facilitate analysis and improve the understanding of migration have stiffened into doctrines rather than being revised, let alone superseded, in light of the advances that have been made. It is time to pause for a major re-evaluation which could and should prove a turning point in academic work and institutional thought.

Perhaps the most crucial element in opening up the field should be the reformulation of the policy-related presumptions on which recent research has been based. Rather than trying to reach a better understanding of the decision-making process generating rural-to-urban migration and its sectoral and overall social implications so as to devise more effective measures to contain/reverse it, the starting point should be an effort to manipulate the phenomenon effectively so as to turn it into a vehicle of national development and personal betterment. The formidable, but amply rewarding, challenge is to exploit skillfully, not to tame coercively. Rural-to-urban migration carries with it a large array of potentially desirable repercussions, often realized and manifested. Good policies should employ effective means to minimize or eliminate the few (if any) undesirable consequences of migration, but not eliminate migration itself.

A general argument often gains force by an excellent example. Such is provided by the issue of urban-to-rural transfer of remittances. By now there is sufficient reason to believe, and evidence to suggest, that rural-to-urban migration and urban-to-rural remittances have actually been used to transform agricultural modes of production (Stark, 1978, 1980b). What a new constructive approach should focus on is the analysis of why, in some cases but not in others, urban-to-rural remittances have had very little impact on agricultural development. Remittances can be turned into a vehicle of rural prosperity even if in the past they were not always conducive to agricultural development. This *may* require some – minimal – institutional intervention to induce migrants to remit more and their rural families to utilize what they receive more productively. (Special remittance bank accounts and matching grants or loans to be extended on the disbursement of receipts of remittances toward the introduction of new technologies may serve such a system.)

Consider, as yet another example, one of the most often repeated statements in the field, that by historical yardsticks the urbanization process in present-day LDCs is second to none (which may not be true at all) and that the phenomenon far exceeds "the absorptive capacity" of cities in present LDCs (Todaro, 1979). A fresh approach may very well demolish even this "conventional wisdom." By now, the advance of social science and technological knowhow has outpaced that of urbanization rates. There is no *a priori* reason why modern knowledge and tools should be unable to provide excellent means to handle the "excessive" growth; migrants' skills and time can be combined to expand this so-called "constrained absorptive capacity" and if we do not yet know exactly how to manipulate them, assuming that such manipulation is warranted, that is exactly what new research efforts should be about.⁸

In the evolution of science and technology, breakthroughs were often autonomous and incidental – an apple happened to fall when Newton was in a contemplative mood. In recent times, however, trail-blazing advances have become increasingly induced. It is time to initiate a coordinated endeavor of the best minds in a concerted effort to redefine the research agenda, to inject a new sense of direction, and to infuse a new vitality and sense of purpose into rural-to-urban migration research.

Notes

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- 1 There are some strong empirical and theoretical reasons for this assumption. See, *inter alia*, Stark (1978, 1982a, b).
- 2 Significant urban-to-rural transfer of remittances is one of the most important observed regularities of rural-to-urban migration in LDCs (Stark, 1978, ch. III, 1980b).
- 3 For formal and fuller treatments see, respectively, Stark (1978, appendix II) and Stark and Levhari (1982).
- 4 In a lifetime utility-maximization exercise, where discounted streams of benefits and costs associated with bearing and rearing children are considered, a lower net price (cost *minus* benefit) of children implies that more of them will be desired (through the positive impacts of both the substitution and the income effects, assuming that children are a normal good).
- 5 For some empirical evidence see Stark (1978, ch. III).
- 6 For given studies containing conflicting views see Lipton (1976) and Findley (1977).
- 7 Credit markets are imperfect, not fully formed, and highly fragmented, the quantity of marketable assets possessed by the small farmer as collateral for credit is very limited, and so forth.
- 8 In comparing the urbanization rate in present-day LDCs with that experienced in the past by present developed countries (DCs), proper account should be given to “the impression that in current LDCs, urban mortality is not signifi-

cantly greater than rural, and perhaps may be lower – whereas the excess of mortality in the cities in the earlier decades in the now DCs was substantial until the beginning of the twentieth century” (Simon Kuznets, personal communication).

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2

The New Economics of Labor Migration

Research on the economics of labor migration has undergone an exciting and significant transformation during the past few years. At a theoretical level, migration research has expanded the domain of variables that seem to impinge upon and are affected by spatial labor supply decisions, it has highlighted the role of wider social entities and interactions within them in conditioning migration behavior, it has identified new linkages between migration as a distinct labor market phenomenon and other labor market and nonlabor market phenomena, and it has contributed to our understanding of the processes of economic betterment and development. At an empirical level, recent work on the economics of labor migration has confirmed the usefulness of old and well-established models of labor migration. It has also provided better estimates of key behavioral parameters, many of which are important ingredients in ongoing debates over public policies relating to migration. With such an impressive score, it is a wonder that more of the profession has not shifted into migration research. Perhaps this has to do with lack of information.

Our goal here is to summarize the actively evolving ideas, findings, and difficulties in the economics of labor migration. We do this mainly by illustrating selected theoretical and empirical developments which we believe to be on the frontier of research in this area. We also identify several new research topics that comprise part of the next research frontier. Prior to proceeding with these tasks, we wish to point out that much of the more interesting recent research is associated with migration within and from developing economies. This situation might be partly explained by the fact that the impact of wage differentials on migration tends to be offset by unemployment compensation programs and other fiscal policies in the developed economies. The scene in the less developed countries (LDCs) thus constitutes a good migration research laboratory for studying migration in general.

1 Theoretical Issues

Whereas owners of production inputs or commodities, such as bricks or bottles of wine, can ordinarily ship them away (so as to maximize profits or utility) while themselves staying put, owners of labor must usually move along with their labor. Furthermore, owners of labor have both feelings and independent will. Indeed, most aspects of human behavior, including migratory behavior, are both a response to feelings and an exercise of independent will. These simple observations divorce migration research from traditional trade theory as the former cannot be construed from the latter merely by effecting a change of labels.

People engage quite regularly in interpersonal income comparisons within their reference group. These comparisons generate psychological costs or benefits, feelings of relative deprivation or relative satisfaction. A person may migrate from one location to another to change his relative position in the same reference group, or to change his reference group. Membership in a reference group with low relative deprivation may well be preferred to membership in a reference group with high relative deprivation even if in the former a person's absolute income is lower. In general, a person who is more relatively deprived can be expected to have a stronger incentive to migrate than a person who is less relatively deprived. Moreover, a reference group characterized by more income inequality is likely to generate more relative deprivation and higher propensities to migrate. Note also that, as particular individuals migrate, the relative deprivation perceived by nonmigrants may change, thereby creating second-round inducements to migrate. For example, if relative deprivation is gauged through a comparison with a reference group statistic such as average income, migration by low-income (that is, relatively deprived) individuals will cause this statistic to increase and thereby induce migration by other individuals who become increasingly relatively deprived.

Not only can the migration behavior of individuals be expected to differ in accordance with their perceived relative deprivation, it can also be expected to differ according to their skill levels. This outcome results when the assumption of heterogeneous workers is paired with the assumption of imperfect skill information on the part of employers. To obtain some strong illustrative results, consider the following polar case. In a given profession, workers with skill S receive wages $W_P(S)$ and $W_R(S)$ from employers at P and R. Assume that skill follows a uniform distribution along a unit interval, that the functions $W_P(S)$ and $W_R(S)$ are nondecreasing and linear, and that S is known by P and R employers. Assume further

that for low levels of S , say $S < S^*$, $W_P(S) > W_R(S)$, whereas for $S \geq S^*$ the reverse inequality holds. Clearly, the lowest-skilled workers will not wish to migrate from P to R. Assume now that R employers cannot observe the true skill level of individual P workers (that is, that skill information is asymmetric), but that they know the distribution of S and will pay migrants from P a wage that is equal to the average productivity of the migrant group. The interior solution S^* now vanishes and is replaced by one of two corner solutions: either there is no migration at all, or there is migration by all. This result follows essentially because the highly skilled workers who migrate under perfect information may not do so if the pooled wage is too low. But if they do not, the pooled wage is lowered so that the next highly skilled group also does not find it advantageous to migrate and so on.

Just as it is clear that neither a brick nor a bottle of wine can *decide* to move between markets, so should it be equally clear that a migrant is not necessarily the decision-making entity accountable for his or her migration. Migration decisions are often made jointly by the migrant and by some group of nonmigrants. Costs and returns are shared, with the rule governing the distribution of both spelled out in an implicit contractual arrangement between the two parties. For example, one important component of the direct returns to the nonmigrating family from the migration of a family member are his or her remittances. Theory suggests the view, that empirical evidence seems to support, that patterns of remittances are better explained as an intertemporal contractual arrangement between the migrant and the family than as the result of purely altruistic considerations.

Theory also offers reasons for the migrant and the family to enter voluntarily into a mutually beneficial contractual arrangement with each other – rather than with a third party – and identifies conditions under which the contract is self-enforcing. Since the chosen contractual arrangement reflects the relative bargaining powers of the parties, this approach can also be used to generate empirically falsifiable predictions about remittance patterns, that is, that variables that enhance the bargaining power of the family and the importance of its support (such as a high-unemployment urban labor market) will *positively* influence the magnitude of migrant-to-family remittances. Note that this approach demonstrates the efficiency, flexibility, and what we might call the dynamic comparative advantage of the family. In other words, it does not view the family as an entity that is split apart as its independence-seeking younger members move away in an attempt to dissociate themselves from familial and traditional bondage, regardless of the negative externalities thereby imposed upon their families. Moreover, this approach shifts the focus of

migration theory from individual independence (optimization against nature) to mutual interdependence (optimization against one another), that is, it views migration as a "calculated strategy" and not as an act of desperation or boundless optimism.

Risk handling provides another illuminating example in which a wider social entity is collectively responsible for individual migration. Clearly, the family is a very small group within which to pool risks. But the disadvantages of small scale may be made up by an ability to realize scale economies and yet remain a cohesive group. Such scale economies are achieved by the migration of one or more family members into a sector where earnings are negatively correlated, statistically independent, or not highly positively correlated with earnings in the origin sector. Again, as in the remittances example, the important point to note is that *both* parties are better off as a result of migration since, in this case, an exchange of commitments to share income provides coinsurance. Note, in addition, that just as it explains migration by part of the family, this example also accounts for nonmigration by the remainder.¹

The nature of intra-group interaction could also help to explain features of the economic performance of migrants. To begin with, migrants often outperform the native born in the receiving economy. (We say more on this in section 2.) In addition, heavy reliance upon "network and kinship capital" is another prominent characteristic of migrant behavior patterns. The latter may explain the former quite readily in the context of an economy with a large number of agents whose transactions are governed by a prisoner's dilemma super-game. Briefly, a migrant who offers to cooperate in his trade with *anyone* in the first game, whereas thereafter the choice in each game is that of the other agent in the previous game, will tend to be better off than a native who never behaves cooperatively, provided that a sufficiently high proportion of trades by migrants are conducted among migrants. This result provides an interesting explanation for the observation that new migrants are assisted by those who have migrated earlier; one good way of having a higher proportion of all trades conducted among migrants when there are few of them is to have additional migrants. The arrival of new migrants confers benefits upon the earlier migrants. It also suggests a resolution of the apparent inconsistency of altruistic behavior within a small group (say, a family) and selfish behavior within larger groups (say, a marketplace); the same strategy, that is, cooperate in the first game and thereafter reciprocate, is systematically applied throughout.

This appeal to strategic behavior may also be used to derive further migration-related insights. Consider first a typical village economy in an LDC where farming landlords are in an oligopsonistic position with respect

to the determination of wages and employment. Through collusion, the farmers can increase their profits. However, labor migration can constitute a credible counter-strategy to this possibility, provided that, from time to time, some undertake it. Note that, once again, migration confers benefits upon those who stay behind, in addition to those associated with a leftward shift in the supply curve of labor. Second, consider the case of employers who, in static and dynamic contexts alike, are better off with a larger labor pool than with a smaller labor pool. Since a large labor pool can be developed by cultivating an image of worker success, it might be worthwhile for employers to create high-paying jobs in order to attract more migrants. As long as a large number of workers believe that high-paying employment can be obtained, or that it is worth waiting for, a migratory response will be produced. High "institutionally determined" wages in urban labor markets in LDCs are thus not necessarily externally imposed upon reluctant employers by government legislation and trade unions. Instead, they may result from endogenously determined strategies designed to maximize profits in dynamic settings. Also, generating a few very high-paying jobs and heavily advertising, so to speak, the rewards associated with them may help to maintain a large labor pool in the presence of high levels of unemployment. This strategy will tend to confuse migrant calculations, which may suggest that expected urban income is less than rural income. Thus high-paying jobs might also be created *in response* to high levels of unemployment rather than preceding them and bringing them about.

Since the endowments and preferences of economic agents are always heterogeneous in practice, selectivity, as such, in response to a given set of prices and opportunities and changes in it, by way of migration or otherwise, is quite obvious. In many cases, whether migration selectivity prevails is not as interesting as the extent to which the migration response diffuses. Indeed, migration can be looked upon as a process of innovation, adoption, and diffusion. As time goes by, what proportion of a given group of *potential* migrants have migrated? To illustrate, assume that there are a number of migration destinations and that there is some prior belief that one particular destination is better than the others. In this setting, the experience of actual migrants provides valuable information that presumably reduces future uncertainty of the remaining pool of potential migrants. Under these circumstances, the most interesting research issues relate to the determination of the speed of adoption of migration as an innovation and the characteristics associated with the delay in the adoption of the innovation (rather than whether it takes place). That is, why are some individuals quicker to migrate than others? For the case of rural-to-urban migration in LDCs where, if history were to repeat itself, most rural

people will end up as migrants, such an approach seems particularly appropriate. Note that, as with a demonstration effect in the case of innovation adoption, a stock of past migrants at a given destination (particularly a large stock) represents evidence that might lead to an upward revision of beliefs that migration is a worthy investment. Moreover, the impact of migration upon the society from which it takes place is now stage specific. Thus the divergence of views concerning the consequences of migration (for example, its impact upon the distribution of income by size) can partly be attributed to the simple fact that the underlying observations are made at distinct stages of the diffusion process.

2 Empirical Considerations

Recent empirical research on the economics of labor migration has benefited a great deal more from the development of new econometric techniques than from new theoretical ideas. The techniques that have substantially improved our ability to use micro data sets in the estimation of relatively standard models of labor migration include techniques for the analysis of qualitative dependent variables, techniques that correct for sample selection bias, and techniques for the analysis of longitudinal and pseudolongitudinal data. At the micro level, most empirical studies have attempted to test simple microeconomic models of migration according to which individuals (or families) make locational decisions primarily by comparing their income opportunities at alternative locations. The key feature of recent studies of this type is their focus on the estimation of structural, as opposed to reduced-form, models of the migration decision. In the past, a major problem that made the estimation of such models difficult was the absence of data on the wages that particular individuals would receive at two or more locations at the same point(s) in time. In other words, survey data sets typically provide researchers with information on the wages received by individuals at their residential location at the time of the survey, their migrant or nonmigrant status at that location, and selected individual characteristics (for example, age, education, and marital status). To the extent that particular *unobserved* characteristics of individuals are rewarded differently at different locations, the average wage of individuals (conditional on their observed characteristics) at location A, who migrated there from location B, will provide a biased estimate of the wage that individuals who remained at location B would receive if they moved to location A.

Largely as a result of advances in the statistical analysis of selected samples, however, we now have fairly simple methods that we can use to test and correct for the bias associated with this unobserved wage problem. To date, estimates of these structural models of labor migration uniformly support the hypothesis that individuals respond to income incentives in making decisions to migrate. However, further application of these models is desirable, using different data sets and more carefully formulated and tested empirical specifications. It would be interesting to examine whether the strength of the migration response to wage differentials decreases over time, while the response to variables such as relative deprivation increases. We should also like to point out that longitudinal data may prove particularly useful in analyzing the determinants of migration, insofar as they permit a distinctly different approach to the problem of sample selection (that is, longitudinal data permit researchers to control more directly for unobserved variables that affect wages and that are correlated with the migration decision).

Furthermore, much empirical research has been conducted on the labor market progress of migrants, with special attention paid to the behavior of international migrants. To date, most studies of this topic have involved the estimation of cross-sectional wage equations in which "years since migration" is entered as an independent variable and its coefficient is interpreted as a measure of migrant progress. Typically, these studies find that migrant workers earn less than native-born workers with similar characteristics during the first few years after migration but more thereafter. It has been suggested, however, that this longitudinal conclusion, based on analyses of cross-sectional data, may be an artifact of either the declining quality of migrant labor over time (that is, a vintage effect) or the outmigration of the least successful migrants. In view of the contradictory nature of extant empirical conclusions, and given the academic and policy importance of this issue, additional research on the pace of migrants' labor market progress is clearly needed. Further analysis of longitudinal data on migrant earnings would also be helpful.

In addition to the two focal points for empirical work discussed above, there are four other areas that empirical economists have touched upon and which we think should receive further attention. The first of these areas involves estimation of the macroeconomic effects of migration. There is a surprising lack of empirical work on the effects of labor migration on wages and employment in net sending and net receiving locations, especially for different types of labor (for example, skilled and unskilled labor). Further work on this topic would be of interest, perhaps involving estimation of the wage and employment effects of migration in the context of well-defined structural models of equilibrium and disequili-

brium labor markets. Analysis of the distributional impacts of migration and the degree of substitutability between international and internal migration in the process of labor market adjustment would also be helpful.

Second, the microeconomic and macroeconomic relationships between aging and labor migration are topics which have received only scant and indirect empirical attention (for example, age is usually a right-hand side variable in microeconomic studies of migration decision-making). Indeed, empirical evidence strongly suggests that older workers are less mobile than younger workers. This finding is quite plausible for a variety of reasons relating to the differential preferences and opportunities of older and younger workers. It therefore seems likely that workforces in many low-fertility countries will show a declining propensity to respond to exogenous economic change by migration as they age over the next two decades. Thus, to the extent that mobility is one of the key requirements for economic efficiency, it would be useful to know more about the extent to which the aggregate migration behavior of a population is influenced by its age distribution and the underlying bases for this relationship. Such information could be very helpful in debates over public policies that provide incentives to migrate.

The third topic that deserves further empirical attention is the migration behavior of dual-earner families. In its most general form, this issue relates to the broader one of the appropriate unit of analysis for studying migration behavior to which we alluded in section 1, that is, the individual or the family. In this connection we can consider the extent to which the labor market activities of one family member are conducive to the migration of another family member, especially in the context of LDCs, or, alternatively, the extent to which the labor market activities of one family member impose a constraint on the migration behavior of another family member, especially in the context of developed countries (DCs). In view of the dramatic rise in the labor force participation rates of females in many DCs, such constraints may have noticeable effects on aggregate migration rates. It would be fruitful to conduct further empirical work on this problem, developed in the context of a structural model of constrained consumer choice and focusing on occupational characteristics as well as earnings.

Finally, at this point in time, we still await the empirical implementation of many of the new theoretical ideas relating to labor migration. Part of the lag stems from the fact that much of the inspiration for recent theoretical work on labor migration is provided by the experience of developing economies in which data on migration are either nonexistent or of poor quality. Nevertheless, given the contribution that careful econometric

analysis of the new ideas can make to the fullness of our understanding of migration, it seems clear that such efforts cannot be very far off.

Notes

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- 1 The insurance attribute of migration also applies to the individualistic case. For example, just as general human capital provides self-insurance, so does migration in conjunction with specific human capital. Thus, in easing risk bearing associated with investment in specific human capital, migration facilitates such investment, thereby conferring efficiency gains.

3

Migrants and Markets

In recent research considerable effort has been devoted to studying the determinants of migration. In our own work we have examined various factors such as informational asymmetries, attitudes toward risk, relative deprivation and intra-household interactions *as causes*. The subject of the returns to migration or the performance of migrants in the receiving economy has received less attention. To a large extent the question "Why do migrants fare as they do?" has been answered through an inspection of the vector of migrants' characteristics. Possession or lack of human capital assets such as skills has been taken to account for migrants' earnings – an approach which is in consonance with that accorded to nonmigrants. The idea that special features characterize the interaction between migrants and the markets they join and that *market* characteristics largely account for the labor market performance of *individual* migrants has not been pursued. It is this idea which constitutes the main theme of this chapter.

Our motivating example is recent migration to the United States. Several stylized facts stand out. First, migrants from a given origin, for example, source country, are not randomly dispersed across the absorbing economy nor are they all concentrated in one single labor market. Migrants tend to form clusters. For example, returns from the 1980 US census indicate that Asian male migrants who arrived during the five year period preceding the census concentrate in four main Standard Metropolitan Statistical Areas (SMSAs): Los Angeles, New York, San Francisco, and Chicago. Second, the intertemporal distribution of the clusters of migrants is not stationary. The distribution across labor markets of migrants of high-order waves does not replicate the existing distribution. For example, a comparison of the distribution of Mexican male migrants who arrived in the United States during the five year period preceding the 1980 census with Mexican male migrants who arrived in the United States during the five year period preceding the 1970 census reveals less clustering; only 60 percent of the recent arrivals chose Chicago and Los Angeles, whereas a full 76 percent of the earlier arrivals chose these cities.

Third, even though the absolute size of a migrant group within a given labor market is often large, in comparison with the absorbing population (for example, the native born) migrants do not constitute large groups. Fourth, recent migrants are assisted by established migrants; there is heavy reliance upon and usage by the new migrants of "network and kinship capital." Fifth, virtually by definition, migrants have several traits distinguishing them from the population they join. Some characteristics are (costlessly) observable. The differentiation by traits often results in a *statistical* discrimination, that is, migrants *as a group* are treated differentially by the nonmigrants compared with the way that nonmigrants are treated by the nonmigrants. For example, migrants are paid less, on average, than equally skilled nonmigrants. Sixth, in many circumstances, migrants outperform the native born. Usually this result is obtained after a time lag from the migrants' arrival. It tends to hold even after allowance is made for the standard controls.

Although each of these stylized facts can be explained separately with greater or lesser ease, no explanation which causally links all of them appears to exist. It might be useful to attempt to sketch the outline of a possible explanation. We begin by explaining the clustering of migrants through an application of a random walk rule in conjunction with scale economies to trade. Suppose that, at the start, migrants choose the labor markets that they join randomly. Successive migrants arrive and each chooses a labor market, taking into consideration several factors one of which may be the presence of migrants who have arrived in the preceding period(s). Even if each new migrant were to choose randomly among the labor markets, after several waves of migration, say at time t , a specific market will probably have more migrants than others. When each of several players repeatedly tosses a die, at some point one player will have scored more odd numbers than the other players even though after many rounds all would score odd numbers exactly the same number of times.

Suppose that the concentration of migrants is subject to scale economies which are quite sensitive to changes in the number of migrants when this number is small. The scale economies (and diseconomies) arise from trade considerations, as explained below. Consequently, from some point in time t , a particular market will become more attractive to all subsequent migrants and clustering will occur. Now suppose that, in contrast, the native population, which is much larger, is subject to decreasing returns to scale. Then, from some point in time, the migrants may obtain an edge and outperform the natives. To the extent that migrants of an early vintage are aware of the sensitivity of the onslaught of scale economies to the overall number of migrants in their particular location they may well undertake steps to support and induce new migrants to join them. Consequently, the

choice of destination by the new migrants is less likely to be random. This process will not continue if increasing returns at a specific location no longer prevail while they do in another location. The intensity of the pull exerted by that other location will then transform it into the more attractive destination and hence the pattern of several clusters will develop. As long as migrants constitute a distinct group from the natives in the sense that there is no cross-over between "their" increasing returns and "the natives'" decreasing returns, the explanation as outlined above can account for all six stylized facts.

Scale economies leading to differences in the returns to trade (exchange activities) may arise from differences in the structure of interactions, that is, in the manner in which trades are being conducted. This manner, in turn, is largely determined by the likelihood of trades being repeated. This likelihood affects the incentive to invest in reputation and the choice whether to execute trade cooperatively or not. When the number of migrants is very small the likelihood of repeated trades with fellow migrants is low since, by necessity, many trades will be conducted with members of the host community. When the number of migrants becomes very large, the need for a repeated trade with any given agent or subset of agents dwindles, and even among migrants trades are conducted in an environment of anonymity. With a negligible likelihood of trades being repeated, tomorrow's reaction by a partner to today's trade will not matter and hence there will be no inducement to undertake steps either to build and sustain reputation or to protect against retaliation. If, however, the number of migrants is neither too small nor too large and the likelihood of repeated trades amongst them is reasonably high, short-term gains from noncooperation will be more than offset by losses from adverse reputational effects and a pattern of cooperative trades could ensue. Somewhat paradoxically, variables tending to raise the likelihood of a repeat meeting among migrants, for example, barriers of various types to trades with outsiders, may be to the migrants' advantage in inducing a pattern of cooperative trade amongst them which accounts for, or contributes to, their superior performance. Whereas for a relatively small migrant population being distinct from the absorbing population is cost free (recall the migrants' possession of visible distinguishing traits such as color, language, accent, pattern of behavior, etc.), forming a distinct group might be quite costly for a subgroup of agents of the absorbing population who recognize the advantages associated with cooperative trades. This is so especially because there is an incentive for members of the complementary portion of the absorbing population to "raid" the subgroup with noncooperative trades, hoping not to be recognized for what they are.

This line of reasoning, rudimentary as it is, leads to several interesting predictions and policies. These differ from predictions offered and policies mandated by existing models or theories. New migrants may not necessarily receive the greatest degree of help from an established community of migrants when such a community is large since the advantage accruing to the latter from a marginal increase in its size might be much smaller than the advantage accruing to a smaller community from a similar increase. Efforts to disperse migrants across a large number of receiving markets or communities may fail inasmuch as migrants recognize the advantage associated with regrouping and the formation of optimal size clusters. Likewise, efforts to direct new migrants to existing concentrations of migrants guided, for example, by a reasoning that the established migrants could provide social (welfare) services, thereby substituting for public outlays, will fail if clusters are already at their optimal size; large concentrations will tend to disgorge rather than absorb the new arrivals. Since clustering rewards "distinguishable migrants" but not others, it would be reasonable to expect the former to be much more concentrated than the latter. If, for example, the US distribution of migrants were to be compared with that of native-born persons of the same ethnic origin, the native ethnic groups should be expected to be more dispersed throughout the United States than the migrants. In addition, given the pace and the extent of the assimilation of migrants into a host population, markets characterized by quicker and fuller absorption will be more "able" to accommodate additional migrants than will markets characterized by slower and partial assimilation. Markets of the former type will find it possible to absorb migrants continuously without reaching the optimal capacity constraint. Finally, by undermining the returns from, and thereby the incentive for, cooperative trades, efforts to hasten the integration of migrants into the host economy and render the integration more complete (a process assisted by acculturation and socialization efforts) may not be in the migrants' best interest.