Networks, Linkages, and Migration Systems

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Recent theoretical interest in migration systems calls attention to the functions of diverse linkages between countries in stimulating, directing and maintaining international flows of people. This article proposes a conceptual framework for the nonpeople linkages in international migration systems and discusses the implications for population movement of the four categories and three types of linkages that define the framework.

In a comprehensive review of the influence of family and personal networks on international migration, Boyd (this issue) remarks on the close association between the study of networks and an emerging analytic interest in migration systems. According to Boyd, "... by the 1980s, researchers increasingly recognized the need to consider migration as a dynamic system in which migration both represented and evolved from linkages between sending and receiving countries. Networks represented one such link..." Looking toward the future, Boyd calls for "... further empirical and conceptual refinements in the study of migration systems [including] new and sustained efforts at linking together the component parts and understanding changes in such linkages". Proposed below is one such refinement: a conceptual framework that identifies twelve types of linkages in migration systems and discusses their applicability to various forms of international migration. A focus on linkages, I believe, calls attention to the processes that energize, direct and sustain migration flows.

BACKGROUND

Although the concept of "migration system" as a guide to research has recently attained increased visibility, the basic notion of a migration system — two or more places linked by flow and counterflows of people — is as old as the scientific study of migration. The current surge of interest results partly from the availability of better data, particularly surveys conducted in both sending and receiving areas that actually measure multiple dimensions of migration systems (Fawcett and Arnold, 1987b). Improved communication among the various academic disciplines concerned with migration has
also played a role, since cross-disciplinary efforts often result in models that are more comprehensive and encompass both macroanalytic and microanalytic perspectives (Portes and Bach, 1985; Richmond, 1984; Nee and Wong, 1985; Massey and Espana, 1987; Fawcett and Arnold, 1987a).

Boyd's review of research on networks points to additional factors favoring a migration systems approach, namely: an emphasis on the economic interdependence of nations in the recent literature on development, especially world systems models and dependency theory; influences stemming from particular disciplinary frameworks, such as place comparisons in migration decision models from social psychology and spatial systems analysis from geography; the empirical and theoretical recognition of many form of population movement, including the circular and return movements that maintain a migration system; the impact of certain contemporary events that call attention to linkages between countries, such as the huge remittance flows to poor countries from workers in the Middle East; and changes in the legal framework for international migration, notably the recent emphasis on family reunification provisions of immigration laws, which facilitate chain migration.

With so many influences at work, it should come as no surprise that there is little consensus about what constitutes a "migration systems approach". One of the earliest detailed statements about migration systems was provided by Mabogunje (1970), who attempted to apply a formal systems analysis model to the topic of internal migration. A similar but more quantitative approach was taken recently by Kanaraglou et al. (1986). A distinctive feature of these and other applications of general systems theory is an emphasis on equilibrium concepts, i.e., the expectation that a change in any part of the system will be matched by an adjustment elsewhere in the system.

Other applications of a systems approach have relied more on the traditional referents of migration studies than on the formal propositions of systems analysis. In deriving a migration systems framework to explain international population movements in the Asia-Pacific region, for example, Fawcett and Arnold (1987a) argue the merits of the approach by implicit comparison with studies that focus on only part of the system (usually the destination). They claim the following beneficial features of a migration systems framework:

1. It directs attention to both ends of a migration flow, with a corresponding necessity to explain stability and mobility in each location.

2. It examines one flow in the context of other flows, or one destination in relation to alternative destinations.
3. It highlights the diverse linkages between places, including flows of information, goods, services and ideas, as well as people.

4. It suggests comparisons between places, thus calling attention to the disparities and imbalances that are a source of energy in the system.

5. It brings into focus the interconnectedness of the system, in which one part is sensitive to changes in other parts.

6. It reinforces the view of migration as a dynamic process, a sequence of events occurring over time.

Similar points have been made in reports sponsored by the Committee on International Migration of the International Union for the Scientific Study of Population (IUSSP), which in recent years has encouraged development of a migration systems approach. (See, for example, Lim, 1987; Salt, 1987; Fergany, 1988; Bedford, 1988.)

In developing a conceptual framework for linkages in a migration system, I take a broad view of what constitutes a “linkage”. I do not deal explicitly with the flows of people that are a prerequisite to defining a migration system, but important elements that are wholly dependent on the people in the system, such as communications from migrants to potential migrants, are included. Also, those linkages that are observable, such as trade flows, and linkages that are conceptual, such as economic dependency, are treated as equivalent. My purpose in adopting this broad view is to extend to its limits the notion of linkages between places as a basis for future theoretical development. A focus on the nonpeople linkages in a migration system may point the way toward a more comprehensive view of the international migration process.

**CATEGORIES AND TYPES OF LINKAGES**

Figure 1 provides a summary of the conceptual framework for linkages in a migration system. Linkages are classified into four categories and three types, producing a matrix of twelve cells. The four categories are: State-to-State Relations; Mass Culture Connections; Family and Personal Networks; and Migrant Agency Activities. The three types are: Tangible Linkages; Regulatory Linkages; and Relational Linkages. Each of the cells will be discussed in turn, using examples to highlight the distinctions between categories.

The first cell in the first row of Figure 1 pertains to Tangible/State-to-State linkages. The conceptual level here is the polity and the economy of a nation-state, and the linkages are primarily a material manifestation of
### FIGURE 1
**LINKAGES IN MIGRATION SYSTEMS**

<table>
<thead>
<tr>
<th>Categories of Linkages</th>
<th>STATE TO STATE RELATIONS</th>
<th>MASS CULTURE CONNECTIONS</th>
<th>FAMILY AND PERSONAL NETWORKS</th>
<th>MIGRANT AGENCY ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TANGIBLE LINKAGES</strong></td>
<td>Trade and Financial Flows</td>
<td>International Media Diffusion (Print, TV, Film)</td>
<td>Remittance Flows</td>
<td>Job Recruitment and Promotional Materials</td>
</tr>
<tr>
<td></td>
<td>Bilateral Economic and Technical Assistance</td>
<td></td>
<td>Correspondence From Migrants</td>
<td>Officially Channeled Remittances</td>
</tr>
<tr>
<td><strong>REGULATORY LINKAGES</strong></td>
<td>Immigration and Emigration Policies</td>
<td>Norms Governing Out-Migration</td>
<td>Family Obligations</td>
<td>Rules and Regulations Governing Migration Process</td>
</tr>
<tr>
<td></td>
<td>Temporary Worker Policies</td>
<td>Societal Acceptance of Immigrants</td>
<td>Community Solidarity</td>
<td>Contracts With Migrant Workers</td>
</tr>
<tr>
<td><strong>RELATIONAL LINKAGES</strong></td>
<td>Complementarity of Labor Supply and Demand</td>
<td>Cultural Similarity</td>
<td>Relative Social Status of Migrants and Nonmigrants</td>
<td>Complementarity of Agency Activities in Sending Country and Receiving Country</td>
</tr>
<tr>
<td></td>
<td>Economic Dependency</td>
<td>Compatibility of Value Systems</td>
<td></td>
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</tbody>
</table>
trade relationships, *i.e.*, the international flows of various goods and commodities. The flow of money or other financial instruments to pay for goods and services can also be classified here. The material flows resulting not from trade but from economic, military and technical assistance programs should also be included. These economic and political connections between countries invariably entail movements of people as well, *e.g.*, business executives who manage export-import companies or transnational corporations, bureaucrats who rotate overseas to manage foreign aid programs, policymakers who travel to other countries to negotiate trade agreements, students who go abroad on scholarships provided by aid programs and military personnel who are posted to other countries as part of bilateral security agreements. These examples pertain only to the direct effects on population movement of Tangible/State-to-State relations. Indirect influences, such as the development of complementary policies on emigration and immigration to facilitate trade flows, are shown elsewhere in Table 1.

Tangible/Mass Culture Connections consist primarily of mass communication products, such as newspapers, films, books, magazines and television shows. These are the media that can effectively convey images and ideas about places across space to large audiences. A certain amount of international movement is attributable to the media themselves, as in the example of reporters on foreign assignment. The more important aspect of mass culture connections, however, is the information they convey about distant countries. Television and films, in particular, serve to make other places less foreign or strange, thus in modern times effectively reducing a psychological barrier to moving that has been important historically. Of course, media linkages can also portray attractive conditions that serve as an incentive to move. Information is the essential ingredient of this Tangible/Mass Culture linkage.

The category of Tangible/Family and Personal Networks refers to monetary remittances, gifts and written communications among network members that flow between origin and destination. Face-to-face discussions can also be included here when they take place during a visit between network members who live in different locations, although these personal communications are analytically useful as “tangible” linkages only when their content is measured (*e.g.*, through retrospective survey questions concerning sources of information about destinations). Boyd’s article in this issue provides many examples of the tangible connections produced by networks and elaborates on the effects of these linkages on the migration process.

Tangible/Migrant Agency Activities refers to flows of materials attributable to migrant agencies, including promotional brochures published for recruiting purposes, remittances sent through agencies officially desig-
nated as the channel for such funds and perhaps subsidies used for recruiting purposes, e.g., paid passages for immigrants. In contemporary times these agency linkages are important mainly in the case of temporary labor migration, although historically they have played a significant role in immigrant recruitment as well. The distinctive aspect of these agency linkages is that they are specifically designed to influence migration behavior. The activities of agencies in destination countries that assist migrants on arrival and facilitate their adaptation could also be included in this category, to the extent that tangible feedback to sending areas can be demonstrated.

The second row in Figure 1 pertains to regulatory linkages, which are usually legal or contractual in nature. Regulatory/State-to-State Relations includes immigration and emigration policies, temporary worker policies and policies affecting tourism, student exchanges and other types of movement (these policies enable movement, while the provisions of migrant agencies usually induce migration). Regulations that affect different sorts of linkages, such as treaties governing trade, could also be included under this heading. The movement of an import-agency manager from one country to another might be directly attributed to the flow of a particular commodity (a tangible factor), but an international agreement on tariffs might be identified as the underlying regulatory causal factor.

Regulatory/Mass Culture Connections are primarily societal norms, specifically norms governing outmigration and community acceptance of immigrants. Such norms can be very powerful in either constraining or facilitating migration flows. For example, extreme prejudice shown toward immigrants who are distinguished by skin color or other visible characteristics will have feedback effects at the origin that are likely to diminish the migration flows. On the other hand, norms in the home community that are not restrictive toward migration could encourage migrant recruitment agencies to concentrate their efforts in that community.

Regulatory/Family and Personal Networks encompass person-to-person obligations among relatives whose expression results in family or chain migration. Similar obligations can pertain to networks made up of friends, classmates or fellow ethnics. Culturally based family obligations may dictate the priorities for sponsorship of new immigrants by former immigrants. Ethnic or friendship obligations may result in hiring preferences within an immigrant enclave or a system of job sponsorship, e.g., petitioning of workers for an ethnic restaurant. Comparative study of network obligations and the manner in which they extend across national boundaries, could greatly enhance understanding of the processes underlying chain migration.

Regulatory/Migrant Agency Activities are the rules and procedures promulgated by agencies in contact with migrants to carry out their recruit-
ing or assistance functions. In addition to general rules, legal contracts with migrant workers can be included here. The nature of these rules (e.g., preferences for males or females, length of labor contract, worker welfare provisions) will have direct effects on the size and characteristics of a migrant flow. These effects may be magnified when returning migrants provide information about the actual conditions associated with contractual provisions.

The last row in Figure 1 pertains to Relational Linkages, that is, linkages that are derived from comparison of two places or conditions. These, then, are conceptual connections — they exist in a research model or theory, in a researcher’s mind and in the minds of migrants or potential migrants. These conceptual, relational linkages are also among the most powerful forces in a migration system.

Relational/State-to-State linkages include economic or political dependency relations, the complementarity of labor supply and demand and disparities in level of development — an array of macrovariables that play a major role in many models of international migration flows. They are distinguished from the tangible linkages because they depend on a relational interpretation that is usually embedded in theory. Both the tangible and the relational approaches can be useful. For example, knowledge about international migration would be enhanced by specifying the number of Japanese working in Southeast Asia on jobs directly attributable to trade flows (tangible linkages). Further enhancement in understanding would be possible by looking also at the relational factors (e.g., economic dominance) that help to explain the trade flows. To demonstrate Relational/State-to-State linkages, historical analysis is usually a critical consideration.

Relational/Mass Culture Connections encompass such comparisons as the degree of similarity between cultures, the compatibility of value systems and commonalities in language and educational systems. These relational linkages are usefully conceptualized as barriers to or facilitators of migration flows. A pertinent example is found in the migration flows between countries that historically have had a colonial relationship, e.g., the Commonwealth countries and the United Kingdom. Having a common language is often a consequence of earlier colonial connections. Similarity in educational systems is, of course, especially important for overseas movements of students.

For Relational/Family and Personal Network linkages, the most pertinent dimension involves the socioeconomic status of out-migrants and returned migrants, as compared with the status of potential migrants. Such microlevel disparities in status are usually considered as a motivating force for migration. Successful emigrants serve as role models for aspiring emigrants; “failed” return migrants may diminish a flow or redirect it to
alternative locations.

Finally, Relational/Migrant Agency Activities refers to the extent to which activities at origin and destination are complementary. An example would be the type of housing provided for migrant workers and the way in which migrant recruitment agencies use information about living facilities in their promotional programs. The labor migration literature provides many examples of disruption of migration flows and problems for migrants when promotional efforts to induce migration produced unrealistic expectations.

DISCUSSION

The conceptual framework outlined in Figure 1 points to the diverse linkages between countries that are associated with the flows and counterflows of people in a migration system. None of the concepts employed is new, and the framework does not specify the functional relationships between various concepts, i.e., it is not a theoretical model. Rather, the framework is intended to have heuristic value in the further development of both theory and research in international migration.

For example, this framework provides a broad context within which a particular research or theoretical interest may be examined. It serves as a reminder that most research efforts deal with only a small fraction of the potential explanatory factors in international migration and it stresses the necessity to analyze and compare conditions at the origin and the destination. The framework may also raise questions about the characteristics of different linkages and how they compare with each other. With respect to Boyd's review we can ask, for example: What are the distinctive features of family and personal networks, compared with state-to-state relations, mass culture connections and migrant agency activities? The potency of network influences is suggested by the following assertions (which could also be formulated as hypotheses about the effects of different linkages):

— Family relationships have an enduring impact on migration. Policies, rules and even norms may change, but obligations among family members are of an abiding nature.

— The credibility of the source has much to do with the effectiveness of communications. Family members are trusted sources for information about migration — more so than migrant recruitment agencies.

— Information is better absorbed and retained when the vocabulary and dialect are close to everyday language. Such compatibility is more likely when information about places is provided by relatives, as opposed to mass media sources.
— Family members become role models through their achievements in foreign countries; such models have more behavioral immediacy than information about labor market disparities.

The framework can also be used to evaluate the adequacy of the research literature on various linkages in migration systems. With reference to the columns in Figure 1, the three cells under Family and Personal Networks — those pertaining to Tangible Linkages, Regulatory Linkages and Relational Linkages — are each covered in some depth in the literature on international migration (albeit unevenly for migration systems in different regions of the world). At the macrolevel, the literature is also extensive for most of the linkages under the heading of State-to-State Relations, such as the effects of immigration policies and the relationship of migration flows to the complementarity of labor supply and demand. Knowledge is weakest for topics covered under the categories of Mass Culture Connections and Migrant Agency Activities.

Another important function of the framework is identifying interactions that may be critical to understanding the dynamics of migration flows. A key example is the interaction between regulatory linkages and family networks. Recent studies of the “immigration multiplier” in the United States have demonstrated the insights about underlying microprocesses that can be gained from this approach (Jasso and Rosenzweig, 1986; Arnold, et al., 1989). Similarly revealing are studies of the interaction between migrant recruitment agency policies and the functioning of networks in sending communities for temporary labor migrants (Singhanetra-Renard, 1988).

Finally, the framework raises basic questions about the type of knowledge that is required for analyzing migration processes. Do we need both macro- and microdata? Are the relational dimensions critically important, requiring comparable data on two or more places at specified time periods? Can we focus on labor market data and ignore the cultural dimensions without serious loss of explanatory power? These are important questions which should be addressed in international migration theory and research in the 1990s and beyond.

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